Vincent B. Van Hasselt · Michael L. Bourke

*Editors*

# Handbook of Behavioral Criminology

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*DEDICATED TO THE MEMORIES OF*
*David van Hasselt and David Saczyk*

# Preface

The concern of the public and professionals from a wide variety of fields regarding crime and criminal behavior has increased dramatically over the past few decades. Driven by the horrifically violent and tragic events that have become almost commonplace internationally, the need for heuristic assessment, investigation, prevention, and intervention strategies has become more urgent. Indeed, while this preface was being written, a suicide bomber in Manchester, England, killed 22 mostly young people attending a rock concert; terrorists went on a knife-wielding rampage in the heart of London, killing 8; a fired, disgruntled employee in Orlando, Florida, returned to his former workplace, shooting and killing 5 before turning his gun on himself; and gunmen attacked Iran's parliament building and a shrine in Tehran, killing 17. These acts occurred in the span of less than 3 weeks. More than ever before, law enforcement and intelligence agencies around the world must maintain constant vigilance to detect and deter terroristic and other violent events.

As psychologists who are also certified law enforcement professionals, we have a somewhat unique perspective on crime and violence. In our efforts to underscore the need for a broad-spectrum response to these pressing and critical problems, we point to the value of the emerging field of Behavioral Criminology. This multidisciplinary approach draws on research to apply behavioral theories and methods to reduce and prevent violent crime and criminal behavior of all types. Some of the disciplines relevant to this field are criminal justice (law enforcement and corrections); forensic, correctional, and clinical psychology and psychiatry; neuropsychology, neurobiology, and neuroscience; conflict and dispute resolution; computer/cyber technology; sociology; and epidemiology, to name a few. Areas of study and application include, but are not limited to, specific crimes, perpetrators, and victims (e.g., homicide, sex crimes, and child maltreatment; domestic, school, and workplace violence), topics of current national and international concern (e.g., terrorism/counterterrorism, online criminality), and strategies geared toward evaluation, identification, and interdiction with regard to criminal acts, such as crisis (hostage) negotiation, criminal investigative analysis, and threat and risk assessment.

The purpose of this volume is to provide practitioners and researchers with information, data, and current best practices for the most important and timely topics in Behavioral Criminology. To this end, we have, perforce, enlisted the contributions of professionals who are recognized scholars in their respective areas of academic study. Also, we believe this book differs

from many others in that we have made an effort to include contributors who are "operational," i.e., on the "front lines" of investigations, assessments, and interventions with regard to serious forms of violence and aggression.

Many people have contributed their time and effort to bring this volume to fruition. First, we thank our gracious contributors for sharing their expertise with us. Second, we thank our technical assistants, Estefania Masias and Kristin Klimley, for their contributions. Also, we thank our friend and Editor at Springer, Sharon Panulla, and Editorial Assistant Sylvana Ruggirello, for agreeing about the timeliness of this project and for their support, patience, and guidance throughout.

We would also like to take this opportunity to thank the many mentors, colleagues, and friends who have served to inspire and support us over the years. In our dual roles of psychologists and law enforcement professionals, there have been many who have influenced us to take this rather unique career path. They include Detective Sergeant Joe Matthews (City of Miami Beach Police Department, ret.), Chief Dan Giustino (Pembroke Pines, Florida, Police Department), Dr. Frank De Piano and Dr. Karen Grosby (Nova Southeastern University), Unit Chiefs Gary Noesner and Steve Romano (Crisis Negotiation Unit, FBI, ret.), Dr. Andres Hernandez (Raleigh, North Carolina), Ombuds Laurel Mills (U.S. Marshals Service), Dr. Robert Durrenberger (Federal Bureau of Prisons), Dr. Emily Fallis (Fort Worth, Texas), and the late Drs. Vesta Gettys (Oklahoma City Police Department), Ernie Little (Oklahoma Department of Corrections), and John Spencer (Fort Lauderdale, Florida). Last, but hardly least of all, we would like to thank our wives Melanie and Angela for their unwavering support, tolerance/patience, and encouragement in this project, and everything we do.

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# Part I

# Overview and Perspectives

# Overview and Introduction

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## Introduction

Americans are no strangers to crime. As a country we are privy to stories of criminal acts on a daily, even hourly, basis through our constant connection to information via television, radio, print, and the Internet. In recent decades the ability to gain real-time information about local, state, and national crime has further revealed the alarming reality of crime in this country. Our daily lives are seemingly enmeshed with violence in today's media, and questions arise how this perpetual exposure impacts our society. In 1950, only 10% of American households owned a television, but today televisions are present in 99% of homes. Television programs display over 800 violent acts in a single hour (Beresin, 2009). According to a 2014 Gallup Poll, 70% of Americans believed crime had gone up in the past year (Gallup, 2015), inconsistent with federal crime reports.

As technology steadily advances we now have the capacity to instantly discover what is going on in our neighborhoods as well as around the world through a variety of different technologies and mediums. Mass communication, multinational commerce, and increasing internationalized politics all contribute to the increase of crime on a global scale (Findlay, 1999). The impact of globalization, although beneficial for international economies, can be detrimental to crime and its subsequent victims. As worldwide markets drive international communication and trade there are greater opportunities for criminals and terrorists to advance their activities on a global stage (Marvelli, 2014). It is imperative that as our world continues to evolve and becoming increasingly international, the approach to crime, its study, prevention, and assessment evolves as well.

Theories, disciplines, and approaches are continuously emerging in an attempt to further expound on crime and criminal behavior. Behavioral Criminology as a multidisciplinary approach has the ability to study criminal behavior, victims, and offenders in today's society. For the purposes of this text our definition of behavioral criminology incorporates the following: behavioral theories and methods for the direct application of assessments, prevention, and intervention efforts for violent crime and criminal behavior. Various topics are

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examined under behavioral criminology including but not limited to: specific crimes and their perpetrators (e.g., homicide, sex crimes, crimes against children, and workplace violence), topics of current national interest (e.g., terrorism and cyber-crime), and strategies geared toward the evaluation and identification of criminal acts (e.g., hostage negotiation, and threat and risk assessment). A behavioral criminology approach will be used throughout this text, ensuring a comprehensive approach to crime, criminal theories, assessment, and prevention.

## Scope of the Problem

### Crime in the USA

According to the Federal Bureau of Investigation's Uniform Crime Report, in 2014 a violent crime occurred every 26.3 s one murder every 36.9 min, one rape every 4.5 min, one robbery every 1.6 min, and one aggravated assault every 42.5 s. A national violent crime rate of 365.5 per 100,000 inhabitants was recorded in 2014 (FBI, 2014). A property crime occurred every 3.8 s one burglary every 18.2 s, one larceny-theft every 5.4 s, and one motor vehicle theft every 45.7 s. The national property crime rate was estimated at 2596.1 per 100,000 inhabitants for 2014 (FBI, 2014).

The following statistics further illustrate the frequency crime in today's society. Of all arrests made, 9.1% were juveniles under age 18 according to the FBI Uniform Crime Report (2014). Juveniles accounted for 10.1% of all violent crime arrests in 2014. In 2010, 1 in every 12 murders involved a juvenile offender (Sickmund & Puzzanchera, 2014). According to Catalano (2012) from 1994 to 2010, four in five victims of intimate partner violence were female, with women ages 18–34 experiencing the highest rates of victimization. Powers and Kaukinen (2012) found that between 1980 and the mid-2000s, increased employment of women was associated with increased risk of intimate partner violence among women.

## International Crime

The Thirteenth United Nations Congress on Crime Prevention and Criminal Justice (2015) provides an overview of the state of crime worldwide and details global and regional trends on different types of crimes. According to the report, from 2003 to 2013 there was a slight decrease in certain violent criminal offenses (i.e., intentional homicide, robbery, rape). In 2012 the global homicide rate was 6.2 per 100,000 individuals. The global trend, however, is not representative of certain regional trends of violent crime. For example, intentional homicide is particularly low and decreasing in Europe, Asia, and Oceania (2–4 per 100,000), but substantially higher in the Americas (16 per 100,000). Of the victims of homicide in the Americas, more than 40% were under the age of 30 (United Nations, 2015). While the global rate of homicide seems to be decreasing, low-income countries have seen increases in homicide.

Gender-related killings of women and girls by intimate partners and family members had a similar prevalence across all regions, regardless of other forms of violence (UN, 2015). The report indicated that during 2012, 47% of all women killed were killed by an intimate partner or family member. This international trend of intimate partner violence elucidates the need for further research on the evaluation, identification, and prevention of such acts.

Trafficking of persons has received international attention in recent decades, and the Uniform Crime Report began to collect data as recently as 2013. The flow of trafficked person is often from poorer, low-income regions to more affluent ones. Human trafficking is a transnational crime that typically involves foreign victims for sexual exploitation, forced labor, or other forms on exploitation (Federal Bureau of Investigation, 2013). The American perception of human trafficking is that it is often a foreign epidemic; however, research suggests an average of 250,000 American children and adolescents are at risk for commercial sexual exploitation each year (Estes & Weiner, 2001). The globalization of transport and labor markets are often cited as

major contributing factors to the exploitation of vulnerable individuals (Candappa, 2003; Hughes, 1999).

## Where Does Violent Crime Occur?

Acts of violence can occur anywhere at any time, including but not limited to the home, the streets, at the workplace, in school, and online. Despite the ever-increasing attention to crime in the media and the public's increasing awareness of violence, the majority of individuals still hold antiquated views of where crime occurs. The most common type of violent behavior, for example, does not occur on the streets or across borders, but rather in our homes (Englander, 2003). Women and girls are led to believe that city streets and dark alleys pose the greatest threat for violent victimization. However in 2007, 64% of female homicides were committed by a family member or intimate partner (Catalano, Smith, Snyder, & Rand, 2009). Research addressing fear of crime often has shown throughout the years that women are more afraid of all types of crime, but men statistically endure more victimization (Lane, Gover, & Dahod, 2009).

### The Home

Contrary to public perception, the home seems to be one of the most common places for violence. According to the National Violence against Women Survey (NVWS), the lifetime prevalence of intimate partner violence victimization was nearly 25% for women and 7.6% for men (Tjaden & Thoennes, 1998). Block (2003) estimated that one in five women are either killed or severely injured as a result of first time violence by their partners. Consequently, Block (2003) also found that 45% of the murder of women by intimate partners seemed to be precipitated by the women's attempt to leave. The most deadly room in the house for violent victimization is often the bedroom, where it has been estimated that one out of five deaths occur (Gelles, 1972; Pokorny, 1965; Straus, Gelles, & Steinmetz, 1980; Wolfgang, 1958).

### The Streets

It is all too common for the media to remind Americans about the danger lurking in the streets. Robbery and stranger assault often take place in the streets and are most overwhelmingly committed by strangers (Bellair, 2000). These types of street crimes produce considerable fear in the general population (Goodstein & Shotland, 1980). Franklin, Franklin, and Fearn (2008) found that individual perceptions of (street) crime were correlated with perception of neighborhood disorder (i.e., noise, traffic problems, and youth gangs). Subsequent factors contributing to violent crime in the streets include: low-lighted areas, lack of surveillance or security, litter, graffiti, and homes in disrepair (Brill, 1977; Brown, Perkins, & Brown, 2004; Harries, 1976; Skogan, 1990; Wilson & Kelling, 1982) which perpetuates peoples fear of street crime.

### The Workplace

In the 1980s there seemed to be an apparent rise in mass murders at the workplace, although this impression may have been facilitated by increased media attention. Contrary to public perception, between 1993 and 1999 there were an estimated 1.7 million violent victimizations in the workplace, 95% of which were aggravated or simple assaults (Harrell, 2011). The bulk of research done on workplace violence focused on patient assaults of healthcare workers, late night convenience store workers, and the robbery and homicide of taxi drivers (National Center for the Analysis of Violent Crime, 2003). According to the Bureau of Justice Statistics, between 2005 and 2009 the occupations with the highest rates of nonfatal workplace violence included law enforcement officers, security guards, and bartenders (Harrell, 2011). The majority of workplace violence between those years (53%) was committed by strangers. However, intimate partner violence accounted for 26% of violence against males and almost a third against females in the workplace (Harrell, 2011).

## In School

Prior to 1992, the term "school violence" was scarcely used to describe aggressive and violent behavior in schools. In fact, the thought of violence in schools was largely unimaginable. Furlong and Morrison (2000) cited a multifaceted problem with school violence including victims and perpetrators of violence, fear and insecurity, and the impact on the disciplinary system and overall school environment. The National Center for Education Statistics cited 11,000 fights in public schools with weapons, almost 200,000 fights without weapons, 115,000 thefts, and 4000 incidence of rape or sexual violence in the 1996–1997 school year alone (Heaviside, Rowand, Williams, & Farris, 1998). The National Youth Risk Behavior Survey (2015) found that an estimated 4.1% of high school students stated they carried a weapon (e.g., gun, knife, and club) to school in the past month (Kann et al., 2016).

## Online

With new technological advancements always on the horizon, there is an increased risk for new forms of crime. Cyber-crime generally can be defined as "crimes perpetrated over the Internet, typically having to do with online fraud" (Decker, 2007). These cyber-crimes can target either information stored on computers, or facilitate another, more traditional crime (Decker, 2007). Experts in the field of cyber-crime caution that the worst is yet to be seen, with the rates of Internet-enabled crimes increasingly rapidly "impacting e-commerce, trade, a serious additional threat to national security through cyber terrorism" (Holder, 2000; Martinez, 2005; Mueller, 2002). Over the past decade, the Internet has facilitated an explosion of social media sites, which have become an integral part of our daily lives. Likewise, criminals have begun to exploit social media sites to phish for potential victims. According to FBI's Internet Crime Complaint Center (IC3), 12% of complaints filed in 2014 involved some form of social media, with social media complaints having quadrupled over the past 5 years.

## Factors Involved in Violent Crime

Violent crime can occur in a variety of different locations and mediums. Indeed, location is one of a multitude of factors that contributes to crime and criminal behavior. Offender age and gender, and the use of alcohol are a few examples of factors involved in crime.

## Age

The relationship between crime and age appears robust, with delinquency peaking in late teen years and rapidly declining thereafter (Sweeten, Piquero, & Steinberg, 2013). The majority of crimes committed by juveniles are often thought to be nonviolent offenses. According to the Juvenile Offender and Victim Report (2010), larceny-theft constituted one in five arrests, making it the most common type of crime committed by juveniles. However, despite their age, juveniles committed one in ten violent crimes known to law enforcement in 2010 (Sickmund & Puzzanchera, 2014). The majority of violent crimes committed by juveniles (62%) occurred on school days. The FBI's Violent Crime Index, which includes murder and nonnegligent manslaughter, forcible rape, robbery, and aggravated assault, accounted for over 75,000 arrests in 2010, 18% of which were female, juvenile offenders.

## Gender

In recent decades a debate has occurred regarding the nature of female offending in the United States. Some researchers argue that increased rates of female offending result from women changes in offending patters, becoming more violent and more masculine (Adler, 1975). Steffensmeier, Schwartz, Zhong, and Ackerman (2005) argued that our laws, practices, and policies have changed to include and criminalize women's violence. In 2010, girls accounted for nearly 30% of juvenile arrests (Sickmund & Puzzanchera, 2014). FBI Uniform Crime Reports

show that in 2013, 7.7% of murders were committed by females. A Bureau of Justice Statistics Report on Women Offenders found, in 1999 "about 1 out of 7 violent offenders described by victims was a female" (Greenfeld & Snell, 1999).

## Alcohol

The link between alcohol consumption and crime has been extensively examined for decades. Research often suggests alcohol is consumed by both victims and offenders prior to the crime being committed, although its facilitative role is often unclear (Shepherd, 1994). The link between alcohol and crime is multifaceted. The role of alcohol can impact the disinhibition of offenders, the situational factors of the drinking environment, and the likelihood of aggressive behavior (Giancola & Zeichner, 1995; Roman, 1981; Room & Collins, 1983). The role of alcohol on criminal behavior also can be seen in the "high proportion of violent crime (50 to 80%) including assault, rape and homicide that is committed by an intoxicated person" (Taylor & Leonard, 1983).

## Identification and Evaluation of Crimes

The identification and subsequent evaluation of criminal acts and/or individuals is of significant importance to the mental health and criminal justice communities. Intelligence gathering in the USA is a vast community with more than a dozen agencies and approximately 100,000 employees (Sanders, 2008). The goal of intelligence gathering and analysis is to "evaluate, integrate, and interpret information in order to provide warning, reduce uncertainty, and identify opportunities" (Fingar, Fischhoff, & Chauvin, 2011). Alongside intelligence gathering capabilities, assessments and negotiations are used to either prevent or deescalate a dangerous situation. Mental health and law enforcement professionals are called upon to not only assess the risk for violent recidivism but also assess the risk for specific types of violent offenses (Borum, Fein, Vossekuil, & Berglund, 1999).

## Risk and Threat Assessments

Effective assessment and intervention of risk or threats of violence continues to be a significant concern for mental health and law enforcement professionals (Borum et al., 1999). Risk assessments evaluate the probability of an individual to engage in violent behavior based on a number of different factors associated with violence (Meloy, Hoffmann, Guldimann, & James, 2012). However, risk assessments may not be able to predict the entire gamut of criminal offenses. Threat assessments were developed to prevent violent behavior by responding to threats and/or individuals that pose an increased risk of harm to others (Borum et al., 1999). Threat assessments have expanded contemporary research to include a variety of domains for violence including: "workplace, campuses and universities, school shootings, public figure assassinations, mass murder, terrorism, and the development of protocols and organizations" (Meloy et al., 2012).

## Crisis Negotiation

The importance of crisis negotiations has become salient over the last several decades, with both local and federal law enforcement using strategies to come to more peaceful resolutions. "The goal or mission of crisis and hostage negotiation is to utilize verbal strategies to buy time and intervene so that the emotions of the perpetrator can decrease and rationality increase" (Hatcher, Mohandie, Turner, & Gelles, 1998). Crisis negotiations often involve four components: (1) establishing communication with the subject and developing rapport, (2) buying time, (3) defusing and deescalating emotions, and (4) gathering information to employ the most optimal negotiation strategies (Lanceley, 1999; Romano & McMann, 1997).

Introduced by the New York City Police Department in 1973, crisis negotiation has proven

to be one of law enforcement's most efficacious tools. Crisis negotiation has been utilized in a variety of hostage, barricade, attempted suicide, and kidnapping cases saving the lives of law enforcement officers, hostages, and suicidal subjects (Regini, 2004). According to the FBI's Hostage Barricade Database System (HOBAS), maintained by the Crisis Negotiation Unit, between 2002 and 2003 approximately 82% of reported incidents were resolved without injury or death to either the subject or the victim (Flood, 2003).

## Preview of the Book

The increased awareness of the scope of crime in our society both domestically and internationally calls for a handbook to explore the nature of crime and its prevention through a behavioral criminology lens. The purpose of this text is to (1) provide a comprehensive overview of perspectives and theories on violent crime, (2) provide a thorough examination of a wide variety of violent crimes committed by adolescents and adults, and (3) cover a range of special topics of criminal offenses, assessments, and factors that are of interest to behavioral criminology.

In Part I, "Dyadic Conceptualization, Measurement, and Analysis of Family Violence," "Role of Neurobiological Factors," "Psychological Theories of Criminal Behavior," and "Behavioral Science Research Methods" chapters provide an overview and framework of sociological, biological, behavioral, and epidemiological perspectives and theories on violent crime, as well an overview of behavioral science research methods.

Part II examines violent crime committed by children and adolescents. "Animal Cruelty Offenders" chapter looks at children and adolescents as animal cruelty offenders. "Child and Adolescent Firesetting" chapter examines children and adolescent fire setting. "School Bullying and Cyberbullying: Prevalence, Characteristics, Outcomes, and Prevention" chapter provides a comprehensive review of school bullying and cyberbullying, its prevalence, characteristics,

outcomes, and prevention. "Child and Adolescent Homicide" chapter deals with child and adolescent homicide.

Part III looks at the most extreme form of violent crime and violent behavior: homicide. "A Cultural and Psychosocial Perspective on Mass Murder" chapter targets mass murder, a burgeoning topic that has been receiving international attention, and examines both cultural and psychosocial perspectives. "Maternal Filicide" chapter deals with maternal filicide, or the killing of one's child. "Homicide-Suicide" chapter examines specific populations who are at risk for involvement in a homicide-suicide. "Criminal Investigative Analysis: A Move toward a Scientific, Multidisciplinary Model" chapter details the specific methods of criminal investigative analysis.

Part IV provides comprehensive coverage of sexual deviance and assault. "Sex Work and Adult Prostitution: From Entry to Exit" chapter focuses on the commercial sexual exploitation of adults, the offenses, and those individuals at risk. "Child Sexual Abuse and Molestation: The Spiral of Sexual Abuse" chapter provides a more in-depth examination of child sexual molestation and abuse. "The Commercial Sexual Exploitation of Children" chapter covers the commercial sexual exploitation of children, as this international offense is brought to the public's attention, and with focus on prevalence, victim and offender characteristics, specific types of offenses. "Female Sexual Offenders" chapter deals with the unique population of female sex offenders. "Young People Displaying Problematic Sexual Behavior: The Research and Their Words" chapter explores children who engage in problematic sexual behaviors, including those engaging in crimes related to sexual deviance or assault. "Internet Sexual Offending" chapter addresses some of the issues with evolving sexual crimes committed via the Internet.

Part V examines distinct forms of family violence. "Sibling Abuse" chapter provides a comprehensive examination of sibling violence and abuse. "Child Physical Abuse and Neglect" chapter delineates the various aspects of child physical abuse and neglect, while "The Medical

Aspects of Victim Vulnerabilities in Child Sexual Exploitation" chapter explores the medical aspects of victim vulnerabilities related to child sexual exploitation. "Domestic Violence" and "Elder Abuse and Mistreatment" chapters cover the various forms of domestic violence and elder abuse, respectively.

Part VI offers a detailed coverage of various topics of behavioral intelligence. "Forensic Linguistics" and "Investigative Interviewing" chapters examine the processes of investigative interviewing and forensic linguistics. "Criminal Interview and Interrogation in Serious Crime Investigations" chapter explores the practice of interviewing and interrogation of suspects. "Management and Mitigation of Insider Threats" chapter covers management and mitigation of insider threats. Finally, "Investigative Uses of Hypnosis" chapter discusses the investigative use of hypnosis.

Part VII is dedicated to special topics concerning environments where violent offenses can occur. "Violence and the Military" chapter explores violence and the military by examining the interface between military and law enforcement, as well as crisis negotiations with veterans. "Workplace Violence" chapter explores the various prevalence, causes, and outcomes of workplace violence. "School Violence" chapter examines the school violence, which over the past few years has been at the forefront of discussions in the USA. "Violence in Correctional Settings" chapter explores violence in correctional settings.

Part VIII is likewise dedicated to special topics and provides and in-depth look at a variety of topics including strategies geared toward evaluation, identification of criminal acts, and other criminal offenses. Furthermore, crimes such as arson, abductions and kidnapping, and terrorism are also discussed. "Crisis (Hostage) Negotiations" chapter details the evolution of crisis, or hostage, negotiation for law enforcement. "Risk Assessment: Law, Theory, and Implementation" and "Foundations of Threat Assessment and Management" chapters provide a detailed coverage of risk and threat assessments, respectively, and the judicial and theoretical foundations of each. "Neuropsychology of Violence" chapter examines the neuropsychological aspects of violence. "Alcohol, Drugs, and Crime" chapter looks at the relationship between the use of alcohol, drugs, and crime. Chapter "Criminal Profiling Investigative Strategies for Arson Investigations" examines the crime of serial arson and subsequent criminal profiling and investigative strategies. "Child Molesters Who Abduct: A Behavioral Analysis" chapter provides an in-depth look at abductions and kidnapping, the prevalence, and various causes. Finally, "Terrorism and Violent Extremism" chapter explores a topic of international interest: terrorism.

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# Dyadic Conceptualization, Measurement, and Analysis of Family Violence

Lindsey M. Rodriguez and Murray A. Straus

Adequate understanding and interventions to prevent and treat family conflict and violence need to go beyond the prevailing focus on individual persons as causes or victims. Families and couples who engage in violence have a distinctive history and pattern of behavior which must also be identified. This chapter represents a critical step toward this integration by accounting for the couple-level dynamics that frequently precede partner abuse.

Partner abuse is inherently a dyadic process given its involvement of two individuals. Langhinrichsen-Rohling, Selwyn, and Rohling (2012) review of 46 studies and a study of couples in 32 nations (Straus, 2015b) found that approximately 50% of partner abuse involves perpetration by both partners. One interpretation is that it represents reacting in self-defense; however, a systematic review of 17 empirical studies found that self-defense was not the predominant explanation for either women or men (Straus, 2012). Therefore, it is also important to consider and empirically investigate the couple-level dynamics that precede, follow, and maintain partner abuse.

The potential of dyadic data may not be realized if the measurement and analysis procedures are not understood and implemented. For example, a study of pornography might ask both male and female partners about their own pornography use. A growing literature in social psychology demonstrates that perceptions are often a more powerful determinant of behavior than are objective measures. Thus, a more compelling design would also obtain data on each person's perception of their partner's pornography use. Then, pornography use can be differentially associated with outcomes based on: (a) its use by the male partner, female partner, or both, and (b) awareness or perception of each other's pornography.

The primary objective of this chapter is to provide information to facilitate wider use of dyadic data measurement and analysis including difficulties in acquiring dyadic data needed for dyadic analysis, the *actor–partner interdependence model* (APIM) for analyzing dyadic data, *concordance analysis* (CA) and the implications of dyadic analysis for theories of family violence, research methodology, and prevention, and treatment.

## Dyadic Measurement

Dyadic data exists when the same variable is measured for both members of the dyad (e.g., husband and wife, and mother and child). It is required for dyadic data analysis. Although a

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simple requirement, implementing it in practice can be difficult. Compared to studies measuring data at the individual level, studies measuring dyads are much less common. Few studies of couples tested both partners, and few studies of parents measured the same variable for both parent and child. Despite this, there are studies with dyadic data that can be obtained through organizations, such as the Interuniversity Consortium for Political and Social Research (http://dx.doi.org) and the German Family Panel, at little or no cost.

Even if hundreds of archived studies could be found, it would not meet the demand for new dyadic data on emerging issues. Researchers who wish to utilize dyadic data approaches must use recruitment and data collection methods that require participation from both partners, which is inherently more difficult. First, only a certain percent of individuals approached about a study will agree to participate. If this percent is 60% for an individual, the probability of both agreeing is $0.60 \times 0.60$, or only 0.36. Second, identifying a time and place that meets the needs of both dyad members is similarly more difficult than for a single participant. There are also potential problems with validity of the data when collecting dyadic data online, as there is no way to ensure the data was actually completed by the spouses separately. Third, regardless of how the data are obtained, additional effort is required to maintain privacy and confidentiality, not only because there are two participants to protect, but also because privacy of the disclosures of each from the other is usually necessary. Finally, the data file structure has additional requirements to maintain the separate identity of each participant in the context of a single data file.

Dyadic data can be obtained in a variety of ways. Almost any measure can be used to obtain dyadic data by administering it to both partners. APIM uses separate reports provided by each member of the dyad. This approach focuses on each partner's perception of their own behavior. We identify this as a *Dual-Reporter* (DR) measurement. A less frequently used method is to ask one partner to describe themselves and also their perception of the behavior *of their partner*. We identify this as a *Sole-Reporter* (SR) measurement. A few instruments such as the Conflict Tactics Scales (Straus & Douglas, 2004; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) do this by asking each item twice: first for the participant to describe their own behavior and then for the participant to describe the behavior of the partner. Although a SR measurement provides data with the same names as when the data was obtained using DR measurement, they are conceptually (and likely also clinically) different. It can be argued that when the behavior being measured is an interaction in which both participated (e.g., a discussion), it is methodologically appropriate to obtain information about the behavior of the partner from the respondent because he or she was present during its occurrence. Of course, the participant may misrepresent what the partner did, just as the partner may misrepresent what they themselves did. We suggest it is best to conceptualize them as measuring different phenomena. Therefore, when a SR instrument such as the CTS is used to obtain the data on both partners, it is important to explicitly identify the data on the partner as a measure of the respondent's perception, not the partner's self-report. That will alert readers to difference between the dyadic data presented based on a SR measurement compared to the usual dyadic data based on a DR measurement.

When both partners provide data about their self and their perception of their partner, each is unique and powerful. Self-reported perception by each partner (and perceptions of self and of partner) may carry the same label (e.g., assault), but are conceptually different, and both are needed to adequately understand dyadic relationships. The value of enhancing dyadic research by considering more than each partner's report of their own behavior is underscored by results from an instrument which incorporates these other dimensions. The Relationships Evaluation Questionnaire *RELATE* (Busby, Holman, & Taniguchi, 2001; Holman, Busby, Doxey, Klein, & Loyer-Carlson, 1997) asks participants to rate themselves and their partner on many different individual and relational constructs. Then, the four scores are presented side-by-side in graphs to help couples

consider all ratings on a particular scales. The respondent's rating *of their partner* on personality and couple dimensions predicted 25% more variance in relationship satisfaction than did the respondent's rating of self.

There are only a few SR instruments. Some examples include the *Conflict Tactics Scales* (CTS) (Straus & Douglas, 2004; Straus et al., 1996), *RELATE* (Busby et al., 2001; Holman et al., 1997), and the *Conflict in Adolescent Dating Relationships Inventory* (CADRI) (Wolfe et al., 2001). Many more are needed. Fortunately, it is often possible to create a SR version of many measures by an appropriate introduction and presenting the items in pairs of questions. An article intended as both theoretical and a methodological information to facilitate this process is in preparation (Rodriguez & Straus, 2016). We hope this article will encourage relationship researchers, including those investigating aggression and violence, to give attention to both modes of conceptualizing and measuring the dyadic aspects of these phenomena.

## Actor–Partner Interdependence Model

Imagine hypothetical married couple James and Beth. Like any couple, James and Beth sometimes have difficulty navigating discussions around sensitive topics. Sometimes one of them ends up yelling or insulting the other and stomping out of the room. They both want to stop these patterns, but find themselves doing it more often than not. Researchers and clinicians have common goals of understanding and reducing unhealthy behaviors. How can researchers and clinicians better understand what is happening between them? How can they understand how each of their psychological aggression contributes to each of their levels of depression?

Understanding the dynamics underlying James and Beth's relationship cannot be identified without considering the behaviors of *both* James and Beth. Perhaps Beth is easily contemptuous, James gets easily defensive. Perhaps they both never learned to take a time out when their conflict discussions get too heated. There are elements that both James and Beth independently contribute to the relationship dynamic, as well as the synergistic element that arises a function of the specific combination of the two partners (e.g., that both are defensive may often result in quick escalation of conflict and poorer outcomes). Another way to conceptualize these components is to think of James and Beth as two separate cans of paint. James' can is blue, Beth's can is yellow. James and Beth independently contribute to the interaction dynamic with their own predisposing factors. We can also conceptualize the unique *combination* of James and Beth as a new can of green paint. Green paint is a new, emergent, distinctive color arising as a function of James' and Beth's relationship.

Statistically, these individual and relationship effects can be examined using the actor–partner interdependence model (APIM). An example APIM model from a study of married couples (Rodriguez, 2016) is shown in Fig. 1. In this model, the number of times each partner perpetrated psychological abuse (measured by the CTS2-short form) was the independent variable, and depression (measured by the Center for Epidemiologic Studies Depression Scale—Revised) was the dependent variable. As can be seen in Fig. 1, results revealed that each partner's perpetration is positively associated with their own depression (i.e., an *actor effect*, the horizontal paths in Fig. 1), but not with their partner's depression (i.e., a *partner effect*, the diagonal paths in Fig. 1). That the actor effects were significant and the partner effects were not indicates that the association between psychological abuse and depression is more intrapersonal than interpersonal.

Ultimately, the APIM allows researchers to estimate the simultaneous influence of both own and partner constructs on outcomes, as well as the additional, emergent influence of the specific relationship (e.g., the green paint can). Moving beyond Fig. 1, addition of the interaction term to the analysis might reveal that the association between own perpetration and depression is even stronger when partners report lower levels of perpetration (i.e., an *actor × partner interaction*).
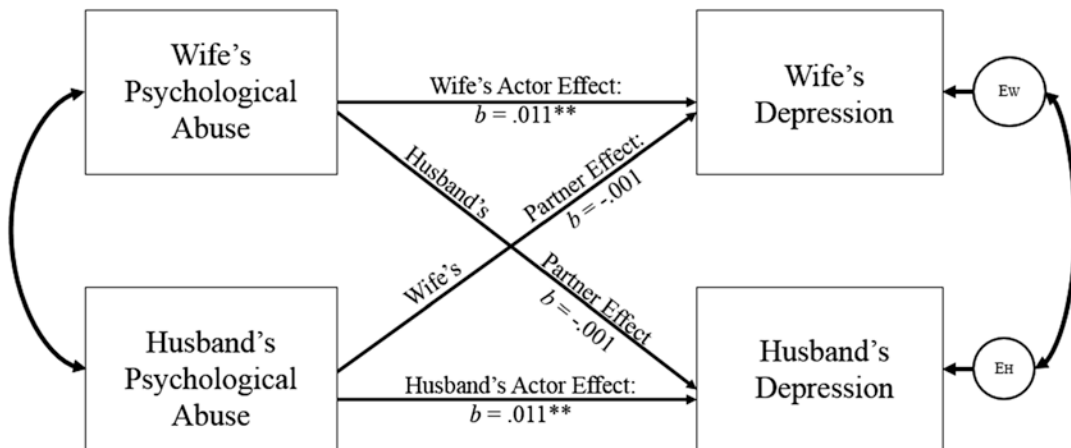
**Fig. 1** The actor–partner interdependence model: relation of actor and partner psychological abuse to depression



**Fig. 2** Growth in peer-reviewed APIM articles
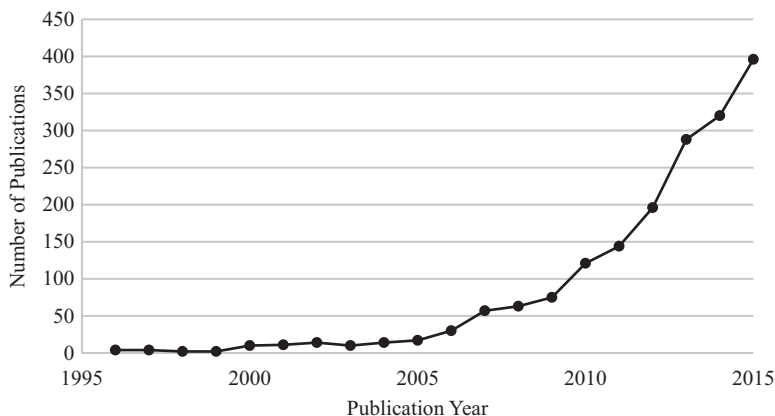
The APIM led the way to what can be considered a dyadic revolution in family and couples research. The APIM began with Kenny (1996) as a special case of multilevel modeling. Since its inception, research utilizing the APIM has made great strides. As shown in Fig. 2, the rate at which peer-reviewed publications are using the APIM has exponentially grown. Figure 2 plots studies using the APIM between 1996 and September 2015. However, even the substantial growth in APIM does not fully demonstrate how much is yet to be accomplished. For example, almost none of those studies are on family conflict and violence (notable exceptions include Lambe, Mackinnon, & Stewart, 2015; Langer, Lawrence, & Barry, 2008; Maneta, Cohen, Schulz, & Waldinger, 2013; Proulx, Buehler, & Helms, 2009; Sbarra & Emery, 2008).

Whereas many analytic strategies (e.g., multilevel modeling) control for the nonindependence that results from nested data, APIM takes advantage of it by examining how each partner's predictors are uniquely associated with each partner's outcomes. In other words, an individual's outcome is simultaneously modeled as a function of their own predictor (i.e., the actor effect), and their partner's predictor (i.e., the partner effect). If desired, other determinants (e.g., gender, gender × actor and partner interactions, actor × partner interactions) may be included. APIM treats the dyad as the unit of analysis, and can utilize individual- (level 1) and dyad- (level 2) level predictors and outcomes. Additional details about the APIM, as well as a step-by-step tutorial, are provided elsewhere (e.g., Ackerman, Donnellan, & Kashy, 2011; Campbell & Kashy, 2002).

Returning to James and Beth, we mentioned that beyond the influence that each partner contributes to the dynamic, there are also emergent characteristics of the couple. Both APIM and Concordance Analysis can identify phenomena that arises as a function of *the combination* of James and Beth together. In CA, this is the first step. In APIM, it is implemented if researchers examine the actor × partner interaction. At a fundamental level, the actor × partner interaction represents the synergistic effect that emerges from the combination of two specific individuals in a relationship. It evaluates whether the partner effect is different based on actor characteristics, or vice versa. For example, it can test whether couples with discrepant levels of some variable (e.g., heavy alcohol use) would show particularly poor outcomes.

## Concordance Analysis

*Concordance Analysis* (CA) is another mode of dyadic analysis. APIM and CA complementary. Each does things that the other does not. The crux of CA is use of *Dyadic Concordance Types* (DCTs) to identify and analyze an aspect of close relationships that is over and above the individual-level characteristics of the members of the dyad. DCTs classify relationships according to whether there is concordance or discordance between members of dyads such as husbands and wives, siblings, parents, and children in a selected behavior or characteristic by cross-classifying the behavior of the partners. Suppose the characteristic selected is whether a physical assault occurred. Three of the four cells resulting from cross-classifying assault by the male and female partner identify the three DCTs: *Male-Only, Female-Only*, and *Both* assaulted. The fourth cell (*Neither*) is the reference category for statistical analyses. The next step in CA is use of standard methods of statistical analysis of categorical data, such as analysis of variance and logistic regression to test hypotheses about what is related to the couple being in one or other DCT. The theoretical basis of DCTs and examples of their use to describe and analyze cases in almost a hundred studies, and the unique information obtained when DCTs are analyzed is presented in Straus (2015b).

Figure 3 is an example of the descriptive use of DCTs. It shows the percent in each DCT for physical assault among couples in the World Mental Health Survey in 11 nations (Miller et al., 2011). The "Prevalence" box in the upper right gives the percent of couples who experienced an assault in the previous 12 months. The bars give the percent in each DCT among the subgroup of couples where a physical assault occurred. The *Both assaulted* DCT was almost half of all
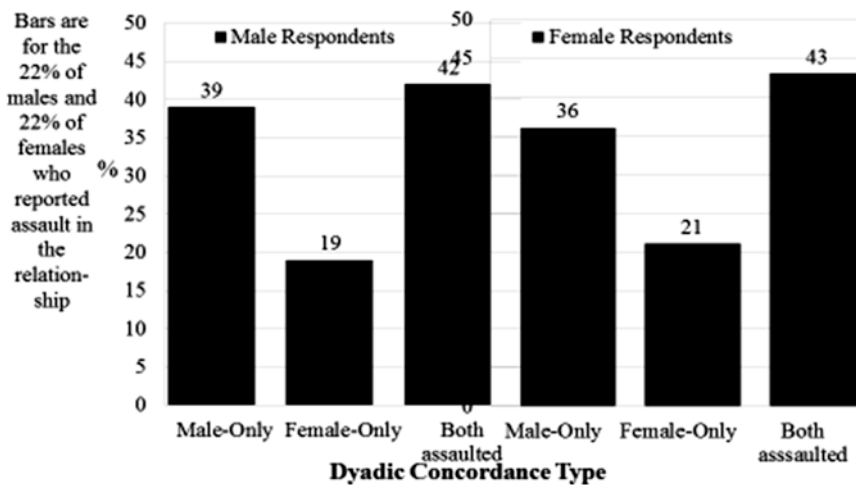


**Fig. 3** Concordance in partner assault perpetration as reported by 3642 men and women in the World Mental Health Study
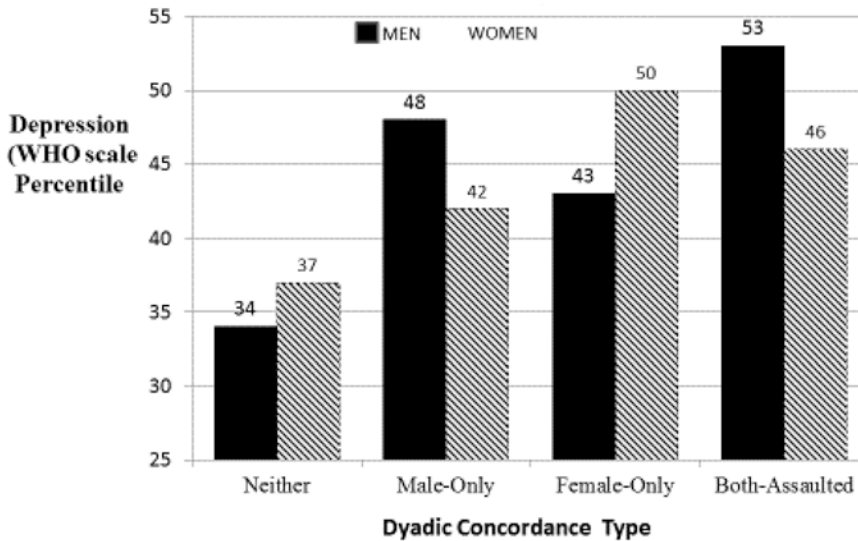
**Fig. 4** Relation of couple concordance in assault to depression of male and female partners of University Students in 15 nations

couples in which violence had occurred. The results in Fig. 3 are consistent with reviews of a large number of studies in many nations, and among many types of samples (Langhinrichsen-Rohling et al., 2012; Straus, 2008), and for sexual coercion as well as physical assault (Costa et al., 2014).

DCTs identify couples in which only the male partner, female partner, or both meet a specified criterion or threshold. However, one partner may greatly exceed this threshold. For example, if the threshold to classify a partner as having perpetrated physical assault is one or more instances, the male partner may have assaulted ten times and the female only rarely. This can be readily examined using standard statistical methods to determine the mean of the cases in each of the three DCTs; for example, $4 \times 2$ ANOVA, with the 4-factor variable being the three DCTs and the reference category, crossed with gender of the participant.

An important attribute of DCTs is that they provide a way of addressing the concerns of both sides in the 40-year controversy about "gender symmetry" in perpetration of partner assault. Identification of cases of concern to those focused on female victims and male perpetrators is

assured because one of the three logically possible DCTs is *Male-Only* perpetrator. Identification of cases of interest of those concerned with the well-being of men is assured because a second DCT is *Female-Only* assaulted. Finally, identification of cases of concern to those whose interest is focused on bidirectional violence and interactive processes is assured because the third DCT is *Both* assaulted (rightmost column in Fig. 4).

## Comparison of APIM and CA

APIM and CA are complementary frameworks for investigating dyadic data. Both incorporate the behavior of the partner, and both account for nonindependence of the data. When practical, both should be used because they elucidate different information in results. APIM models can establish how both partners—and their relationship—uniquely influence each other's outcomes. APIM models can present more specific information—and a greater variety of information—by using additional variability in continuous predictors and outcomes for the actor and partner effects. For example, APIM models can present the relative strength of the causal paths,

which are interpreted as regression coefficients (e.g., the increase in depression given a one-unit increase in perpetration of both the individual and his or her partner).

CA quickly classifies couples into *Male-Only, Female-Only*, or *Both* categories of the focal phenomenon, and the reference category *Neither*. This four-category variable is then used to examine what is associated with each DCT, such as relationship distress and child well-being. The immediacy and ease of placing cases in each DCT represents functionalities that the APIM does not have and may be particularly useful in the clinical realm. The main distinctive contribution of CA is identifying the *joint* effects which characterize unique characteristics of a couple. With rare exceptions, studies using APIM have not reported the characteristics of each couple as a unique social entity, partly because the primary objective of APIM is to identify the independent effect of *each actor*.

In summary, APIM is primarily a research tool. It has much greater scope than CA, but is more difficult to implement. Although research using the APIM can provide information of great value for clinical work, APIM itself cannot be used in clinical practice. Although APIM requires more steps on the researcher's part, the additional information provided makes APIM the method of choice when the aim is to understand the complexities that underlie interpersonal relationship processes. Because APIM and DCT are complementary and in some respects overlap, use of both can be advantageous. A simple but important way to incorporate APIM and CA is to use each for what is its most direct application and strength. This might be to estimate the strength of the paths from the behavior of each partner to the outcome variable using APIM, and to estimate what difference it make in the outcome variable if the couple falls into one or the other of the three DCTs. As noted previously, APIM can be used to analyze the cases in each DCT. This is done by including the actor × partner × gender interaction in the model with dichotomous variables. This results in the same information as DCTs, as illustrated by the following study.

## APIM and CA Example: Relation of Physical Abuse to Drinking Problems

The question of interest here is how one's own and one's partner's perpetration affects one's own drinking problems. Researchers might also conceptualize this question as how own perpetration is associated with drinking problems, and whether this association is different based on partner perpetration. We examined these associations separately for husbands and wives, as well as whether the associations differ for husbands and wives. Participants in a study of married couples (Rodriguez & Neighbors, 2015) asked 106 couples to complete measures of partner abuse perpetration and negative alcohol-related consequences. Minor physical abuse and injury were measured with the Conflict Tactics Scale—Short Form. To enable the analyses with DCTs to be comparable, responses were dichotomized by coding a "1" for perpetration and "0" for no intake. Drinking problems were measured with the Rutgers Alcohol Problems Index (White & Labouvie, 1989). The RAPI asks participants how many times they have experienced 25 potential alcohol-related consequences (e.g., vomiting, headache, missing work due to drinking, and blacking out) in the previous 3 months. Responses were scored on a 5-point Likert-type scale (0 = *never*, 1 = *1–2 times*, 2 = *3–5 times*, 3 = *6–10 times*, 4 = *more than 10 times*). Scores were calculated by summing the items.

APIM models were run in a multilevel modeling framework using SAS 9.4 PROC MIXED. To maintain comparability with the CA analyses, the data were analyzed as distinguishable by gender with actor and partner perpetration predicting drinking-related consequences. The model included gender, the main effects of actor and partner perpetration, the actor × partner interaction, the 2-way interactions with gender, and the 3-way actor × partner × gender interaction. This 3-way interaction allows for plots of husband and wife outcomes. Results from a hierarchical approach are presented in Table 1. Results revealed a significant actor × partner interaction on

**Table 1** An actor–partner interdependence model of perpetration on drinking problems

| Step | Predictor | $b$ | SE ($b$) | $t$ |
|---|---|---|---|---|
| 1 | Intercept | 3.089 | 0.618 | 5.00*** |
| | Gender | 0.621 | 0.449 | 1.39 |
| | Actor perpetration | 0.540 | 1.050 | 0.51 |
| | Partner perpetration | 1.252 | 1.111 | 1.13 |
| 2 | Actor perpetration × gender | 2.330 | 1.352 | 1.72† |
| | Partner perpetration × gender | 1.589 | 1.284 | 1.24 |
| | Actor × partner perpetration | −5.467 | 2.602 | −2.10* |
| 3 | Actor × partner perpetration × gender | 3.703 | 2.430 | 1.52 |

Note: †$p < 0.10$, *$p < 0.05$, ***$p < 0.001$

**Table 2** Husband and wife drinking problems (RAPI) as a function of the presence of husband and wife physical abuse perpetration

| | Wife RAPI scores | | | | Husband RAPI scores | | |
|---|---|---|---|---|---|---|---|
| | Actor perpetration | | | | | | |
| | | | Wife perpetration | | | | Husband perpetration |
| | | | No | Yes | | | No | Yes |
| Partner perpetration | Husband perpetration | No | 2.44 | 4.13 | Wife perpetration | No | 2.50 | 6.20 |
| | | Yes | 5.30 | 0.25 | | Yes | 6.50 | 10.87 |

Note: Values represent predicted means for individuals in each cell
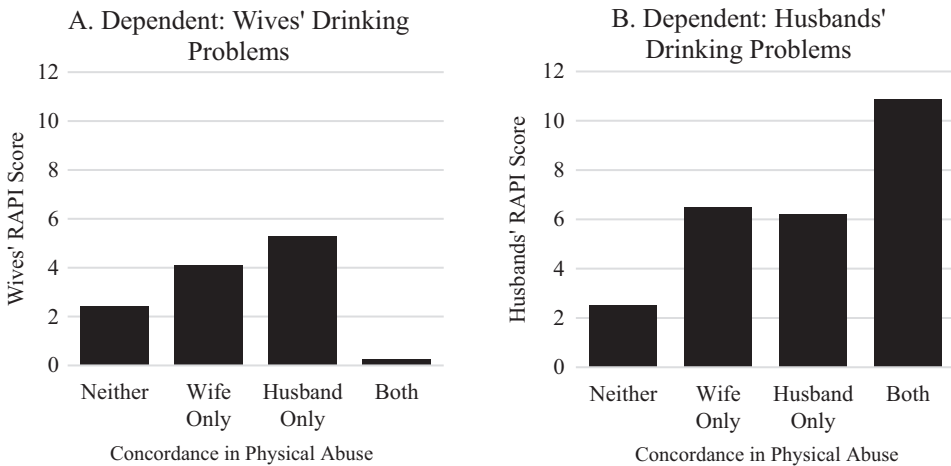


**Fig. 5** Relation of own and spouse minor physical abuse to drinking problems

drinking problems. In other words, the association between own perpetration and drinking problems is contingent upon whether one's partner also perpetrates. Although the 3-way interaction with gender was not statistically significant—revealing that this interaction did not significantly differ for husbands and wives—it still allows for decomposition and comparison with a CA approach.

Rates of drinking problems for husbands and wives as a function of the patterns of physical abuse are presented in Table 2. Figure 5a shows that for wives who do not perpetrate, husband abuse is associated with more drinking problems. It also shows that for wives who do perpetrate, husband abuse is associated with fewer drinking problems. Wives report the most drinking problems

when their husband perpetrates but they do not ($M = 5.30$), followed by scenarios when they perpetrate but their husbands do not ($M = 4.13$). Drinking problems are lower for wives when neither perpetrate ($M = 2.44$) or when both perpetrate ($M = 0.25$). In other words, wives seem to report the most drinking problems when there is *discrepancy* in abuse within the relationship. On the other hand, Fig. 5b illustrates a different pattern for husbands. For husbands, when they perpetrate *or* when their spouses perpetrate, drinking problems increase. The greatest amount of drinking problems for husbands is when *both* aggress ($M = 10.87$ as compared to 6.50, 6.20, and 2.50).

The relation of partner abuse to more drinking problems when the person does not perpetrate is the same for husbands and wives. However, *when the person does perpetrate* it is different for husbands and wives. When the wife also perpetrated, partner abuse was associated with a *reduction* in drinking problems, but when the husband also perpetrated, partner abuse was associated with an *increase* in drinking problems. Complex patterns such as these are critical to progress in the violence field, but can only be elucidated with dyadic data.

## Conclusion: Implications of a Dyadic Approach

Understanding, preventing, and treating intimate partner abuse will be enhanced by taking into account that partner abuse occurs from specific behaviors and characteristics of both partners and from their specific relationship. Partner abuse does not occur in a vacuum that is void of partner influence. Approaches that incorporate the influence of dyadic factors are critical to moving the field forward in theory, treatment, and prevention.

Perhaps the most general theoretical implication of adopting a dyadic approach is that theories of partner abuse—which assume and seek to explain it as predominantly male perpetration—need to be replaced by a family system framework which recognizes that most partner abuse involves bidirectional aggression and that it occurs in

response to multiple causes, not just male dominance in society or in the relationship. Male dominance is an important problem that is inherently victimizing. But it is only part of the problem of family abuse. It is our hope that future examination of partner abuse can further explore how both partners affects the emergence, maintenance, and—if successful—eventual dissolution of partner abuse.

A dyadic analysis of aggression is a crucial starting point for treatment because it identifies when the aggression is male-only, female-only, and by both. However, this is only a starting point. The next step is to use this information to help create a treatment plan that focuses on whichever of the three situations applies. An extensive body of research indicates it will reveal a variety of social and psychological problems characterizing both partners (Muftić, Finn, & Marsh, 2015). A dyadic approach means that the problems and needs of *both* partners are addressed, not just those of the presenting offender, as is the case with current batterer intervention programs. Based on studies, such as Babcock, Green, and Robie (2004), the sponsor of these programs concluded they do not change batterers' attitudes and that they have little to no impact on reoffending. Similarly, when there is child physical abuse, the current focus tends to be on the mother, ignoring the fact that in most cases, both parents are abusing, and both need help (Straus, 2015a).

Traditional theories dominating the study of domestic violence have framed the problem exclusively in terms of male perpetration of violence against women (Dobash & Dobash, 1992), with the natural consequence that interventions guided by these theories have targeted only men. The results of a groundbreaking study of an entire birth cohort of 360 couples (including clinically abusive cases) suggested it is imperative to also target abuse committed by females to achieve the aim of violence reduction (Moffitt, Robins, & Caspi, 2001). Such a change would mark a revolution from present practice, exemplified by the "Duluth Model" (Pence & Paymar, 1993) which tends to be based on a single-cause theory: misogyny and patriarchy. The many other risk

factors identified by hundreds of studies, and summarized in World Health Organization and CDC reports (Centers for Disease Control and Prevention, 2007; Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002) are ignored and sometimes rejected as excuses.

A study of the effectiveness of four batter intervention programs (Straus, 2014) adds to the empirical evidence on the importance of dyadically based services. It found that 60% of the female partners had previously assaulted, and 22% during the 15 months subsequent to the program. Of the women who did not assault in those 15 months, 19% were victims of assault by their partner during this period. Thus, when the women refrained from assaulting, it did not guarantee safety. On the other hand, when the women did assault, it almost guaranteed they would be attacked: 82% of their male partners assaulted. These results, along with findings from a longitudinal study by Feld and Straus (1989), indicate that woman hitting her partner is a strong predictor of her being a victim of partner assault a year later. This includes other longitudinal studies, by Feld and Straus (1989), Kuijpers, van der Knaap, and Winkel (2011), and Lorber and O'Leary (2011), and cross-sectional studies by O'Keefe (1997) and Whitaker, Haileyesus, Swahn, and Saltzman (2007). Still other studies are reviewed in the meta-analysis by Stith, Smith, Penn, Ward, and Tritt (2004), which concluded that assaults *by the female partner* is the largest single risk factor for victimization of women. Thus, protecting women can be aided by dyadic treatment which seeks to help both partners avoid violence.

One of the concerns of child welfare is to help children victimized by exposure to abuse between parents. We suggest this effort is handicapped because, with rare exception, research and theory on this problem focus only on children in situations wherein the father attacked the mother (Schnurr & Lohman, 2013). In respect to child welfare services, workers are directed to "identify evidence of *woman*-battering" [emphasis added] (National Clearinghouse on Child Abuse and Neglect, N.D.). A review of child abuse studies (Straus, 2015a) found about half the children were in families where both parents assaulted. This aspect of family

aggression is likely to be better understood by researchers and more effectively prevented and treated with a dyadic approach.

With rare exception, primary prevention efforts are directed only to men and boys. In response to the almost 300 studies showing as high or higher rates of initiation and assault by women, especially young women, some prevention efforts are now gender neutral. Unfortunately, exploratory research by the author found that "gender neutral" statements and examples tend to be perceived as male perpetration. Ironically, this is probably because of the remarkable (and much needed) accomplishment of the women's movement in bringing worldwide attention to violence against women and steps to combat it (Pierotti, 2013). Additionally, males are not taught how to handle being victims, and females are not taught how to handle being perpetrators. Both of these issues could be addressed by gender-specific dyadic approach. Gender-specific means including include examples that specifically identify men and boys as victims as well as women and girls. The same gender specificity is needed for examples of offenders. The ironic aspect is that it has led to public perception of "domestic violence," "partner violence," and "family violence" as almost exclusively "violence against women," whereas, as the evidence summarized in Desmarais, Reeves, Nicholls, Telford, and Fiebert (2012) and this article indicates, with the crucial exception of the much higher injury perpetration by men, violence is most often bidirectional perpetration. The deeper irony is that conceptualizing partner abuse as almost exclusively a problem of male perpetration obscures the need for a dyadic approach, which can provide help to women as well as men in managing the underlying social and psychological problems leading to aggression and violence.

In conclusion, we hope that this chapter begins to elucidate the importance of a dyadic perspective to accomplish preventing and treating family abuse. We also hope that this chapter has elucidated some of the mystery surrounding dyadic data analysis, and that researchers and clinicians may employ a dyadic approach via either APIM or CA in their research or practice.

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# Role of Neurobiological Factors

Charles J. Golden, Rachel Zachar, Benjamin Lowry, and Victor Tran

The study of the biology of aggression has always been limited by complex research issues and ethical limitations in performing human research. Early research relied on anecdotal reports in the literature and animal models. Anecdotal studies are inherently limited in their generalizability, as are animal studies which may reveal some basic mechanisms of aggression in more primitive animals but are unable to take into account those changes which occur in brain organization with the development of the more complex areas seen in human research. This research has more recently been enhanced by the introduction of neuroradiological devices which can measure the structure of the human brain (e.g., computed tomography [CT] and magnetic resonance imaging [MRI]) and the metabolic function of the human brain (e.g., positron emission tomography [PET] and functional magnetic resonance imaging [fMRI]) in intact and live human brain, although not when they are showing violent tendencies. This chapter reviews the major trends in this research.

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## Animal Models

### Drosophila

*Drosophila melanogaster*, the "common fruit fly," is classified as a member of the insect order Diptera. They are often referred to as the common fruit fly because they have a tendency to swarm around spoiled rotten, overripe, or spoiled fruit. Drosophilae have contributed significantly to the advancement of biological research. They have been considered optimal research subjects for multiple reasons: (1) drosophilae are small insects, approximately 3 mm, which makes it easy to store them in large quantities; (2) they have a short life cycle, consisting of four stages of development, proceeding from egg to adult, lasting 2 weeks; (3) their entire genome, which consists of four pairs of chromosomes, has been sequenced; and (4) their polytene chromosomes are easier to observe under a microscope.

As a result of these previously mentioned advantages, drosophilae have been used in experiments to evaluate, in addition to many other psychological constructs, aggression. A complex construct, aggression consists of a continuum of behaviors. Drosophilae evidence many distinct behaviors as an expression of aggression: boxing, lunging, tussling, holding, wing threats, chasing, head butting, shoving, and fencing. Various factors can regulate the

expression of aggression in drosophilae, including neurotransmitters, physiological sex, pheromones, and learning and memory.

Specific neurotransmitters have been identified as possible contributors to the expression of aggression in drosophilae. The influence of Octopamine (a compound chemically related to norepinephrine) on drosophilae aggression has been extensively studied. Andrews et al. (2010) observed that decreased octopamine reduces drosophilae's lunging behavior. Baier, Wittek, and Bremb's (2002) found that manipulating serotonin levels produced certain changes in behavior but no statistically significant effect on drosophilae aggression. Although the findings from this study could be interpreted as validation of findings derived from prior studies, subsequent studies have demonstrated that serotonin influence on drosophila expression of aggression is complicated.

Alekseyenko, Lee, and Kravitz (2010) genetically manipulated serotonin levels in drosophilae. They discovered that lowering serotonin levels did not completely abolish fighting; however, it did reduce the drosophilae's capacity to escalate aggressive behavior. With a reduced capacity to escalate aggressive behavior, drosophilae cannot assert dominance over one another. They also found that increased serotonin levels exacerbated aggression in drosophilae. Higher serotonin levels expedited the escalation of aggression and elevated the intensity of aggression. Drosophilae were more quickly and frequently observed exhibiting behaviors such as boxing. It is possible that the manner in which serotonin affects drosophilae aggression may be dependent on the specific serotonin receptor type. Drosophilae have three different serotonin receptor types: (1) 5-HT2Dro, (2) 5-HT1A-like, and (3) 5-HT7. Johnson, Becnel, and Nichols (2009) found that the increase of serotonin levels via receptor type 5-HT2Dro alleviated overall aggression; the increase of serotonin levels via receptor type 5-HT1A-like elevated overall aggression. In addition to influencing the overall level of aggression, it appears that serotonin receptor types differentially regulate distinct aggressive behaviors. The receptor type 5-HT2Dro appears to regulate behaviors such as lunging and boxing; while, the receptor type 5-HT1A-like appears to regulate behaviors such as fencing and wing threats.

The influence of dopamine on drosophilae aggression is also complex in nature. Baier et al. (2002) derived no consistent findings concerning the influence of dopamine on aggression. Alekseyenko et al. (2010) found that dopamine does not have a direct influence on drosophilae aggression: Dopamine disruption only produced reductions in aggression when coupled with serotonin disruption. Mao and Davis (2009) discovered eight drosophila dopaminergic neurons in drosophilae. In contract to their own prior research, Alekseyenko, Chan, Li, and Kravitz (2013) identified two dopaminergic neurons in which both an increase and decrease of their respective levels resulted in increased aggression.

Physiological sex in fruit flies is a significant factor in the manifestation of aggression; male drosophilae and female drosophilae evidence different rates of aggression. Males demonstrate higher rates of aggression than do females. Males and females have different motivations for displaying aggression. Males aggress in order to obtain food and to copulate with females; while, females aggress in order to obtain yeast which facilitates reproduction. Although males and females do exhibit sex-specific aggression, aggressive behaviors exhibited by both sexes are carried out in a different manner. Genetics research has elicited interesting findings concerning sex-differences in the manifestation of aggression. Chan and Kravitz (2007) showed that the fruitless gene (Fru) controls the manifestation of sex-specific aggression. When Fru is dormant, drosophilae aggress in a manner typically associated with females. When Fru is expressed, drosophilae aggress in a manner typically associated with males. In another line of research, Penn, Zito, and Kravitz (2010) bred multiple generations of incredibly aggressive drosophilae, referred to as bullies. The bully males were more aggressive, were quicker to lunge, were more likely to fight, were quicker to retaliate, and were more likely to win fights; however, the bully females did not exhibit the same levels of aggressive behavior as did the males.

Pheromones are chemical substances secreted by animals which elicit certain social responses from other animals of the same species. There are different types of pheromones which elicit different types of behavior. It has been proposed that drosophilae secrete an aggression specific pheromone. Male drosophilae only aggress toward other male drosophilae. 11-cis-vaccenyl acetate (cVA), an antiaprhodisiac, is an aggression pheromone which is male specific. This pheromone requires specific olfactory receptors, Or67d and Or67a. The presence of cVA has been shown to increase aggressive behaviors including lunging, wing threat, tussling, and chasing (Wang & Anderson, 2010). In addition to cVA, cuticular hydrocarbons, which are classified as contact pheromones, appear to contribute to aggression. Fights between male drosophilae typically do not begin with high intensity aggressive behaviors such as boxing or tussling; they begin with lower intensity aggressive behaviors such as fencing. It is possible that cuticular hydrocarbons can elicit lower intensity aggressive behaviors in drosophilae (Fernandez & Kravitz, 2013).

Dominance in fruit flies can be established after a drosophila wins a fight against another drosophila. The question has been asked with regard to whether drosophilae remember and learn from previous fights. The data suggests that drosophilae do remember and learn from previous fights (Yurkovic, Wang, Basu, & Kravitz, 2006). After hierarchical relationships were established, drosophilae learned from previous experiences. They did not continue fighting in the same manner. Drosophilae that won their previous fights exhibited increased lunging and decreased retreat behaviors; drosophilae that lost their previous fights exhibited decreased lunging and increased retreat behaviors. Drosophilae did remember the fights in which they were previously involved. When placed in situations in which they had to fight again another drosophila to which they had lost previously, loser drosophilae were less likely to show high intensity aggressive behaviors. Whether they were paired to fight with new or old foes, the loser drosophilae were unable to change to a dominant hierarchical status. This suggests that drosophilae not only remembered the fact that they lost but also the particular drosophila to which they lost.

## Mice and Rats

Laboratory mice of the species *Mus musculus* and laboratory rats of the species *Rattus norvegicus,* have been extensively used in biological research. Both of these types of animals possess several characteristics which make them advantageous subjects for research. Researchers fully understand the mouse and rat genetics, anatomy, and physiology. They are both relatively small: the rats weigh on average between 250 and 300 g; and the mice can weigh on average between 18 and 35 g. It is easy for researchers to handle these animals because they often possess a mild mannered, docile nature. Commercial producers breed mice and rats specifically for research purposes, and researchers can purchase large quantities of these animals for relatively inexpensive costs.

Mice (1–3 years) and rats (2.5–5 years) have short life spans, allowing researchers to study them at each stage of development. They have rapid reproductive rates, approximately 19–21 days for mice and 21–23 days for rats. Mice and rats are both mammals, which places them in the same animal class as that of human beings. This shared classification makes sense considering mice and rats' genetic code is about 98% identical with that of humans. This genetic similarity with humans facilitates the generalizability of findings derived from research involving mice and rats, and generalizing results from animal research can be productive as long as the researchers involved are wary of the issues presented with poor external and ecological validity. Genetic engineering techniques allow researchers to either insert novel genetic information (transgenic mice and rats) or inactivate a single gene (knockout mice and rats).

Researchers have examined the effect of inactivating different individual genes which code for different estrogen receptors on aggressive behavior in mice. The genes which code for estrogen receptor, ER-α, and estrogen receptor,

ER-β, have been inactivated in mice. Different patterns of aggressive behavior have been observed depending on the specific gene which was inactivated and the sex of the mouse in which the gene was inactivated. When the gene for ER-α was inactivated in male mice, those mice no longer exhibited aggression (Ogawa et al., 1998). When the gene for ER-α was inactivated in female mice, those mice behave more like male mice (Ogawa et al., 1998). In male mice, deletion of ER-β produced an increase in aggressive behavior (Nomura et al., 2002). In female mice, the deletion of ER-β produced a decrease in aggressive behavior (Durbak, Pfaff, & Ogawa, 2002). From the previously described assortment of research findings, there is evidence which suggests that the genes which code for the estrogen receptors contribute to regulation of aggressive behaviors in mice. There is also an indication that the manner in which the genes affect aggression is sex-dependent.

Serotonin appears to have a significant role in the regulation of aggression in mice. Ferrari, Palanza, Rodgers, Mainardi, and Parmigiani (1996) compared the effect of serotonin treatment on different types of aggressive behaviors observed in wild mice of both sexes and Swiss mice of both sexes. The serotonin treatment reduced the likelihood, in both types, that male mice would attack female mice and vice versa; it reduced the likelihood, in both types of mice, that adult mice would attack infant mice. However, the treatment did not appear to have any significant impact on the likelihood that the mice would commit predatory attacks on one another.

Researchers have studied specific serotonin receptors in order to further understand the role of serotonin in mice aggression. $5\text{-HT}_{1B}$ receptors have been proposed as contributing to the regulation of impulse control and aggression. Bouwknecht et al. (2001) compared the effect of confrontation with a conspecific intruder mouse on wild type mice and $5\text{-HT}_{1B}$KO mice. They found that the $5\text{-HT}_{1B}$KO mice exhibited behavioral disinhibition, which was measured as increased aggression and social interest, in response to the conspecific intruder. The wild

type mice did not exhibit significantly heightened social interest and aggression in response to the conspecific intruder. These findings bolster the assertion that the $5\text{-HT}_{1B}$ receptor mediates impulse control and aggression.

De Almeida and Miczek (2002) also explored the role of the $5\text{-HT}_{1B}$ receptor agonist, anpirtoline, on different types of aggressive behaviors and different causes of aggressive behaviors in mice. The different types of aggressive behavior observed were biting, sideways threat, tail rattling, pursuit, and anogenital contact. The different causes observed were aggression due to instigation and aggression due to frustration. Instigation involved a situation in which an intruder mouse was introduced to a cage containing another mouse. Frustration was produced by the discontinuation of scheduled reinforcement. Results of the study indicated that anpirtoline decreased aggression caused by instigation and aggression caused by frustration.

Mice exhibit different types of aggressive behavior. They display maternal aggression, intermale aggression, predatory aggression, learned aggression, irritable aggression, hierarchical aggression, and territorial aggression. Karl et al. (2004) discovered that the Y1 receptor of neuropeptide Y has a role in territorial aggression. In this study, the researchers inactivated the gene which codes for the Y1 receptor in mice. They found that the Y1 knockout mice increased territorial aggression but no significant changes in spontaneous aggression. Y1 knockout mice exhibited a decrease in the enzyme tryptophan hydroxylase, which is responsible for serotonin synthesis. The researchers administered a serotonin agonist, 8-hydroxy-2-(di-n-pro-pylamino) tetralin hydrobromide, to the Y1 knockout mice; this treatment eliminated the elevated territorial aggression observed in the mice.

Gamma-Aminobutyric acid (GABA) has been identified as an inhibitor of aggressive behavior. However, there have been contradictory findings concerning the impact of GABA on aggression. Gourley, DeBold, Yin, Cook, and Miczek (2004) found that positive allosteric modulators of the $\text{GABA}_A$ receptor complex can increase

aggression. The researchers administered 4,5,6,7-tetrahydroisoxazolo [5,4c]-pyri-din-3-ol (THIP), midazolam, and triazolam to adult rats examine the respective drug's effects on their aggression toward an intruder rat. Afterward, carboline derivative antagonists were administered with midazolam. They found that midazolam and triazolam increased aggressive behaviors; the carboline derivative antagonists inhibited the aggression heightening effects of midazolam; and THIP produced no significant effect on rat behaviors.

Fish, DeBold, and Miczek (2005) examined whether or not corticosterone elevations could alter the aggression heightening effects of GABA$_A$ positive allosteric modulators. Their findings provided evidence that corticosterone elevations can alleviate the aggression heightening effects of the positive allosteric modulators of GABA$_A$. Findings also indicated that corticosterone elevations are involved in aggressive responses and escalation which follows those aggressive responses.

## Nonhuman Primates

Aggression in nonhuman primates is highly dependent upon the species of primate. Each primate species is organized according to its own social and hierarchical structure. Chimpanzees, who organize themselves into large communities, are considered one of the more violent nonhuman primates. Male chimpanzees appear to inhabit a higher position than do female chimpanzees within the chimpanzee hierarchy. Male chimpanzees are one of the few primate species known to violently attack and kill members of other species in order to lay claim to territory (Wrangham, Wilson, & Muller, 2012). In addition to exhibiting aggression in order to mark their territories, chimpanzees have been observed committing predatory attacks on human beings for multiple reasons. The majority of these predatory attacks involved human children in situations in which the chimpanzees were either in search of food or just happened to confront a human child within

the same geographical area (Hockings, Yamakoshi, Kabasawa, & Matsuzawa, 2010).

In contrast to the level of aggression exhibited by chimpanzees, bonobos, or pygmy chimpanzees, which also organize themselves into larger communities, are considered one of the less violent species of nonhuman primates. Female bonobos appear to inhabit a higher position than do male bonobos within the bonobo hierarchy. Bonobos exhibit both low levels of within-group aggression and between-group aggression. With regard to intragroup aggression, male and female bonobos have never been observed aggressing toward each other (Hare, Wobbler, & Wrangham, 2012).

Researchers attribute the difference in aggression between the chimpanzees and bonobos to the heightened gray matter of the right dorsal amygdala and right anterior insula, cerebral areas involved in the perception of distress in the self and others. Bonobos also possess an enlarged connection between the amygdala and anterior cingulate cortex; this connection is responsible for the inhibition of aggression (Rilling et al., 2012).

If nonhuman primates were viewed as existing along a continuum of aggression, silverback gorillas would fall somewhere in between chimpanzees and bonobos. Lowland gorillas organize themselves into smaller communities, typically consisting of one silverback, multiple females, and their respective progeny. Mountain gorillas form smaller communities consisting of multiple silverbacks, but one male within a specific group is responsible for the sexual reproduction within a community (Bradley et al., 2005). These gorillas are much more aggressive than their lowland counterparts, more likely to attack the silverbacks of other communities and aggress toward females (Bermejo, 2004; Sicotte, 2002).

Stress, produced by the hypothalamic pituitary adrenal axis, is an important factor which influences the exhibition of aggression in nonhuman primates; however, the exact influence of this factor appears to depend on the specific species considered. Cortisol is a glucocorticoid that is released by the adrenal glands in response to the experience of an acutely stressful event. A positive correlation between aggression and

cortisol concentration was discovered in captive chimpanzees (Yamanashi, Morimura, Mori, Hayashi, & Suzuki, 2013). For ring-tailed lemurs, a higher cortisol concentration was found in top-ranking females than was found in low-ranking females. A positive correlation was found between cortisol concentration and aggression (Cavigelli, Dubovick, Levash, Jolly, & Pitts, 2003).

Testosterone also has a regulatory role in the exhibition of aggression. The "Challenge Hypothesis" has been proposed to attempt to explain the exact nature of the role of testosterone in aggression; this hypothesis asserts that testosterone mediates aggression during conflict between male nonhuman primates (Sobolewski, Brown, & Mitani, 2013). Testosterone and stress levels, according to the "Energy Mobilization Hypothesis," increase in order to cope with the increased physical demands required during conflict (Rombero, 2002). In addition to the two previously mentioned hypotheses, a phenomenon known as the "winning effect" describes a phenomenon in which monkeys appear to be reinforced by the exhibition of aggression. This reinforcement of aggression increases the monkey's rate of expressing aggression (Steklis, Brammer, Raleigh, & McGuire, 1985).

Furthermore, there appears to be sex-related differences in the demonstration of aggression in nonhuman primates. Female aggression in nonhuman primates is commonly associated with the acquisition of resources and reproduction. This is in direct contrast to the reasons for which they typically aggress, particularly in nonhuman primate species in which males occupy higher status, females rarely attack males. However, in a study of mandrills, Setchel, Knapp, and Wickings (2006) observed the females conducting a collaborative attack on the alpha male in order to initiate change within the hierarchical dynamic of a group. Females appear to distinguish between within-group females and between-group females when deciding whether or not to exhibit aggression. In a within-group situation, females will not attack each other. However, they will compete for long-term access to preferred food sources (Kahlenberg, Emery Thompson, & Wrangham,

2008). In a between-group situation, when female chimpanzees reach the age at which they are ready to reproduce, they will leave for another group. The females which are ready to reproduce will receive no indication of aggression from other females belonging to the group to which the reproductive-ready females are leaving. The other females belonging to the groups welcome the reproductive-ready females' departure because the reproductive-ready females represent competition for mates. The reproductive-ready females will face aggression from the females belonging to the new group to which the reproductive-ready females are approaching because the reproductive-ready females represent competition for mates. The males belonging to the new group will protect the reproductive ready females from the other females because they wish to mate with the reproductive-ready females (Kahlenberg et al., 2008).

## Computed Tomography and Aggression

There is little research into the relationship between morphological brain structure measured with computed tomography (CT) imaging and aggressive or violent behavior in humans. The research that does exists is often limited to populations that act violently following traumatic brain injury (TBI). Aggression following TBI has been found to be associated with lesions in the frontal lobes (Tateno, Jorge, & Robinson, 2003). This finding is hardly surprising due to the involvement of the frontal lobes in regulating emotion and behavioral inhibition. Injury or morphological abnormality within the frontal lobes can result in an inability to adequately regulate and inhibit limbic functioning, which may result in increased aggressive behavior.

CT imaging of violent prisoners has revealed morphological abnormalities in the frontal, parietal, and medial temporal cortices, as well as around the third and left ventricles (Schiltz, Witzel, Bausch-Hölterhoff, & Bogerts, 2013). These abnormalities disrupt higher cortical functioning, which suggests that there may be a

structural basis for aggression and violent behavior. However, greater aggressive behavior is not always clearly associated with morphological brain abnormalities, instead the aggressive behavior may be more associated with the new-onset of major depression, poorer social functioning, and increased dependency (Rao et al., 2009). This indicates that there are many other factors involved in aggressive behavior beyond mere structural injury; however, it is important to note that, while other stressors may be more strongly associated with aggressive behavior than TBI, brain injury also plays a role in emotional dysregulation related to depression and diminished social and personal functioning.

Overall, studies of aggression and brain morphology using CT highlight the importance of higher cortical functioning, particularly in the frontal lobes, to control and inhibit behavior; however, morphological abnormality alone does not fully characterize the neurological aspects of aggression. To better characterize the neurological aspects of aggression other imaging techniques, such as electroencephalography (EEG) are used.

## Electroencephalography and Aggression

Aggression has consistently been shown to be related to hemispheric asymmetry of cortical activity (Convit, Czobor, & Volavka, 1991; Harmon-Jones & Sigelman, 2001; Keune et al., 2012). Specifically, results have shown that hemispheric asymmetry of alpha wave patterns in frontal areas are associated with increased aggression, anger, and violence (Hinrichs & Machleidt, 1992; Keune et al., 2012; Lacker et al., 2014). Additionally, some research has indicated increased aggression related to increased hemispheric asymmetry of beta, delta, and theta wave patterns among specific populations, such as children and adolescents, violent prisoners, and violent psychiatric inpatients (Convit et al., 1991; Ellingson, 1954; Knyazev, Pylkova, Sloboskoj-Plusnin, Borcharov, & Ushakov, 2015; Li, Wang, Zhang, Zhou, & Guo,

2015). It is unclear why asymmetrical hemispheric activity is so closely associated with aggression. It has been suggested that anger and aggression are approach motivational states: they motivate a person to approach challenges and goals, and that asymmetrical cortical activation servers to indicate whether to approach a challenge or to withdraw (Harmon-Jones & Allen, 1998). Much of the research involving EEG and aggression has focused on describing the characteristic hemispheric asymmetry of cortical activity.

Research into the hemispheric asymmetry of cortical activity related to aggression has produced mixed and unclear results. Some studies indicate a positive correlation between aggression and greater left hemispheric cortical activity (Gatzke-Kopp, Jetha, & Segalowitz, 2014; Harmon-Jones & Allen, 1998; Harmon-Jones & Sigelman, 2001; Li et al., 2015) and others studies indicate a positive correlation between aggression and greater right hemispheric cortical activity (Convit et al., 1991; Deckel, Hesselbrock, & Bauer, 1996; Keune et al., 2012). One possible explanation for these disparate findings may be due to differences in developmental stage, such that in children and adolescents aggression related cortical activity might be biased to one hemisphere, but through development this hemispheric asymmetry moves to the opposite hemisphere. Additionally, this difference in cortical activity may differ depending on whether the aggression is state-dependent or trait-dependent, with state-dependent aggression cortical activity being biased to one hemisphere and trait-dependent cortical activity being biased to the other hemisphere.

Another possible explanation for this disparity may be due to methodological differences for characterizing and assessing aggression. For example, studies that use a criminal or psychiatric population often rely on past history, either from facility staff or conviction history, whereas with studies of normal adults aggressive nature is often determined experimentally, through an aggressive response task or self-report questionnaires. This may mean that the constructs of aggression being tested in each experiment may be so different that comparison between the two

groups is unreasonable; this could lead to disparate patterns of results simply because each group is being assessed on a completely different construct. With these potential differences in mind, a more in-depth review of the findings of these studies into aggression and EEG may help clarify the nature of asymmetrical hemispheric cortical activity.

A study of children in kindergarten found a positive correlation between left hemisphere activation and teacher reported externalizing (Gatzke-Kopp et al., 2014). Kindergarten age children likely lack the sophisticated emotional and behavioral regulation systems that matures through development. As a result, hemispheric asymmetry in cortical activity is likely to produce more immediate behavioral consequences, i.e., externalizing behavior. It is not clear what happens with these children as development continues and whether or not early hemispheric asymmetry persists with an individual throughout the life. What this study does indicate is that differences in cortical activity can occur early in development and these early differences in neurological functioning may play a role in persistent aggressive behavior throughout life.

Among aggressive children, frontal alpha power, which indicates reduced cortical activation, at ages 9–10 has been found to predict future adolescent, but not concurrent, aggressive behavior (Niv et al., 2015); additionally, it was found that genetic factors explained the majority of variance within frontal alpha power and later aggressive behavior. These findings highlight the importance of frontal lobe functioning, even before fully maturing, in regulating emotion and inhibiting behavior. Another important take away is the role genes play in cortical functioning during development and later aggressive behavior. This genetic foundation of cortical functioning enhance predictions of future aggression at even younger ages and may lead to earlier preventative interventions.

Curiously and despite the hemispheric imbalance of cortical activity, 9–10 year old children did not show increased aggressive behavior immediately, unlike what occurred in kindergarten aged children. These immediate behavioral differences may be due to the immaturity of higher cortical functioning in kindergarten children which limits the ability of young children to effectively regulate their own behavior. Children nine and older have more mature cortical functioning and are likely more able to inhibit aggressive behavioral responses. Another curiosity is why disinhibition of behavior occurs again in adolescents, despite continued maturation of higher cortical areas. One possible explanation may be due to the effects of puberty and the immature frontal cortex taking a more dominant role as the primary functional system for behavioral inhibition. Another explanation could be that during adolescence there is greater social acceptance, support, and reinforcement for aggressive and disruptive behaviors. This peer acceptance may disinhibit behavioral control and thereby lead to increased aggressive behaviors. Further study is required to understand the relationship between developmental age, aggression, and externalizing.

Among adolescents, it was found that anger was positively correlated with alpha wave power in the right hemisphere and negatively with alpha wave power in the left hemisphere. This means that when there is greater right cortical activity, there is less anger; when there is greater left cortical activity, there is more anger (Harmon-Jones & Allen, 1998). There was a positive correlation between anger and beta and theta wave forms in the left frontal lobe. This may indicate that the right frontal lobe plays an important role in behavioral inhibition for anger or that the left frontal activity causes anger.

Another study of adolescents with either anxious or aggressive tendencies revealed that higher aggression was associated with prolonged frontal low alpha phase shifting durations, i.e., longer periods of dyssynchrony among frontal cortical areas (Lacker et al., 2014). This finding suggests that aggressive adolescent brain regions take longer to organize and coordinate, thereby limiting available cognitive resources and impairing the ability for adolescents to effectively respond to environmental demands. This dyscoordination may be due to increased noise and competition among frontal neural networks, such as the

dopamine reward network and the prefrontal cortex regulatory system.

Within normal adult populations, aggression has been linked to increased alpha coherence during aggressive cognitions and smaller left prefrontal theta wave synchronization in response to angry faces (Hinrichs & Machleidt, 1992; Knyazev et al., 2015). Additionally, when presented with fearful or angry faces adults rated as more aggressive had a smaller frontocentral response (Lu et al., 2015). Increased anger was associated with left prefrontal activity following a written insult, which resulted in increased aggressive behavior (Harmon-Jones & Sigelman, 2001). These tasks are designed to evoke state-related aggression and the cortical activity associated with those states of aggression were measured. The cortical asymmetry revealed in these state-related aggression studies is the same cortical pattern found at earlier development, i.e., greater aggression is associated with left hemispheric dominance.

Regarding more trait-related anger, a quantitative EEG study found that training individuals with chronic anger to down regulate beta wave activity improved anger control and reduced frequency of angry outbursts (Walker, 2013). This suggests the importance of slow cortical activity in maintaining anger and aggression. Additionally, it indicates that improved control over cortical activity can be an effective treatment for trait-based aggression in normal populations.

Violent criminals are often used to represent trait-based aggression. Research involving violent criminals has indicated that aggression is related to more slow wave cortical activity, i.e., delta and theta waves (Ellingson, 1954; Raine, Venables, & Williams, 1990). Additionally, greater right frontal cortical activity than left frontal cortical activity has been found among adult prisoners rated as more violent by prison staff, which persists even after controlling for negative affectivity (Keune et al., 2012). This indicates the hemispheric asymmetry biased toward either the left or right hemisphere can increased violent and aggressive behavior. Additionally, the direction of asymmetry may indicate whether the aggression is state-related, i.e., greater left activity, or trait-related, i.e., greater right activity.

There is evidence that criminal psychopaths can be trained to regulate slow cortical activity in the fronto-cortical areas using a slow cortical potential self-regulation neurofeedback approach (Konicar et al., 2015). The study found that after completing the self-regulation training the participants showed a decrease in aggression and impulsivity with improved behavioral-inhibition. Being able to develop and enhance these regulatory skills may be an important step into more effective rehabilitation and reintegration of criminal populations. These studies suggest that trait-related aggression may be more linked to delta and theta wave activity, rather than alpha wave activity; additionally, these studies may indicate that alpha wave activity is more closely linked to state-related aggression. Furthermore, neurofeedback treatment may be useful in reducing state-based aggression and improve frontal cortical skills for inhibition.

Similar trait-based aggression finding have been reported among violent psychiatric patients. One study found that greater observed violence was associated with greater left delta power, localized to the frontotemporal areas (Convit et al., 1991). Additionally, a comparison of violent and nonviolent paranoid schizophrenics revealed greater theta power in the right frontal and anterior temporal regions, as well as greater delta power in the right prefrontal area (Li et al., 2015). This evidence further supports differing hemispheric asymmetry in state- and trait-related aggression, with state-related aggression showing greater left hemispheric dominance and trait-related aggression showing greater right hemispheric dominance. Furthermore, another study found that increased left frontal lobe activation was associated with a decreased likelihood of being diagnosed with antisocial personality disorder (Deckel et al., 1996).

Much like with violent criminals, neurofeedback treatment may be effective at reducing aggression and impulsivity within violent psychiatric populations. Indeed, neurofeedback therapy has already been effectively employed for treating schizophrenic symptoms of an inpatient

population (Bolea, 2010); furthermore, the treatment was effective enough to lead to discharge and changes to cortical activity persistent at a 2-year follow-up. This suggests that neurofeedback treatment can be effectively employed with difficult psychiatric populations and it may be as simple as merely tailoring the treatment to focus on the reduction of aggression. These treatments may also be useful to employ within less common disorders related to aggression, such as seizure.

Aggression has been found to occur in the peri-ictal periods of a seizure. While these cases are rare, understanding peri-ictal aggression and rage may provide insight into the biological underpinnings of aggression. In the case of one 34-year-old male with a history of prenatal encephalopathy, mental retardation, and, a history of 10–15 seizures per month, it was found that after having a seizure he would enter post-ictal rage characterized by screaming, kicking, and otherwise fighting against his restraints (Yankovsky, Veilleux, Dubeau, & Andermann, 2005). This post-ictal aggression and rage was characterized by slow background cortical activity and rapid changes in cortical activity in the bilateral frontal and temporal areas. His seizures would either begin bilaterally in the temporal lobes, thence spreading throughout the brain, or they would begin bilaterally in the frontal lobes and spread to other nearby regions. His episodes of post-ictal rage may have been due to disruption of the frontal cortex or overstimulation of the limbic system. Either way, imbalance between regulating cortical systems and instigating cortical systems is a salient feature of peri-ictal rage. This pattern of frontal and temporal lobe dysfunction has been observed in other cases of post-ictal aggression (Ito et al., 2007). This suggests that explosive aggression may be the result of disruption to the balancing of higher cortical areas and the limbic system.

## MRI, SPECT, and PET of Aggression

Magnetic resonance imaging (MRI) is used most commonly to look at structure (Vallabhajosula, 2009). It gives a more detailed image of tissue and allows for greater contrast between soft tissues than CT. Functional magnetic resonance imaging (fMRI) is a more specialized form of the MRI that allows individuals to visualize the functions and mental operations of the brain by following changes in blood oxygen concentration. Positron emission tomography (PET) scans can also be used to determine functional processes of the brain. It can image several different processes such as blood flow, level of oxygen, and glucose metabolism within the working brain tissues. Finally, the single photon emission computed tomography (SPECT) scan is utilized in order to determine brain function from the perfusion of regional cerebral blood flow (rCBF) (Vallabhajosula, 2009). Not only can these types of imaging be useful in medical settings, but are highly utilized in the forefront of research as well.

Wahlund and Kristiansson (2009) completed review research focusing on aggression within psychopathy. Within structural imaging, a pattern of brain tissue loss within the temporal lobes of violent patients was found (Laakso et al., 2001). Tissue loss within frontal areas was also discovered (Raine, Lencz, Bihrle, LaCasse, & Colletti, 2000). Functional imagining research with PET scans discovered that violent individuals tended to have lower glucose metabolism in the temporal and frontal lobes as well (Volkow et al., 1995). SPECT studies showed that there was hypoperfusion of rCBF in the frontal lobes (Kuruoglu et al., 1996). Most of these studies were conducted over 15 years back, making them nearly outdated; however, they set a precedent for more current studies to base predictions on.

Many studies have looked into the relationship between temporal lobe epilepsy and aggression. This is a reaction commonly seen with patients who suffer from this particular type of epilepsy (Tebartz van Elst, Woermann, Lemieux, Thompson, & Trimble, 2000). Tebartz van Elst et al. (2000) conducted an MRI study on aggressive individuals with temporal lobe epilepsy and found that these individuals had severe amygdala atrophy. Another investigation using a SPECT scan found that patients with epilepsy who exhibited postictal aggression showed hypo-

perfusion in frontal lobe regions (Masumi et al., 20072007). A case study of aggression in temporal lobe epilepsy demonstrated from a SPECT scan that the patient had hypoperfusion in the left frontal regions (Poprawski et al., 2007). Altogether, these studies on temporal lobe epilepsy show that there may be a pattern observed between the frontal lobes and the temporal lobes in relation to aggression which will be explained later in the chapter.

Other aggression research outside of an epilepsy-focused population has found similar results. Amen, Stubblefield, Carmicheal, and Thisted (1996) conducted a SPECT study on aggressiveness and found that individuals with higher levels of aggression had decreased activity in the prefrontal cortex. They also found that these individuals had increased activity in the limbic system as compared with individuals with lower levels of aggression (Amen et al., 1996). Similarly, Link et al. (2014) found through SPECT imaging that individuals with high levels of aggression demonstrated lower blood flow to limbic structures such as the amygdala and hippocampus as well as the temporal and parietal lobes.

MRI research conducted on individuals with frontotemporal dementia has also found that atrophied frontal and temporal lobes are related to aggression and irritability (Mychack, Kramer, Boone, & Miller, 2001). Likewise, aggression can also be seen in patients with Alzheimer's disease (AD). A PET scan study focusing on this relationship found that individuals with AD and aggressive tendencies had hypoperfusion in the middle region of the right medial temporal gyrus (Lanctot et al., 2004). PET research with healthy volunteers also showed hypoperfusion in the medial temporal gyrus during the presence of aggression, suggesting that this particular area of the temporal lobes may be implicated in episodes of rage and aggression (Davidson, Putnam, & Larson, 2000). Another structural MRI study focusing on lesions of the frontal lobe found a link between the presence of these frontal lobe lesions and aggressive behavior (Paus, 2005). Any of these investigations have found structural or functional differences within the frontal and temporal lobes, as well as cortical structures within the limbic system.

As just explained, there have been several studies that have shown a link between the frontal lobes and the limbic system. It has been posited that the prefrontal cortex (PFC) of the frontal lobes both controls and inhibits limbic structures like the amygdala (MacLean, 1955). In other more recent functional studies, frontal structures such as the orbital frontal cortex (OFC) and the ventromedial prefrontal cortex (vmPFC) have been shown to play a role in the inhibition of the amygdala (Coccaro, McCloskey, Fitzgerald, & Phan, 2007; Strenziok et al., 2011). The limbic system and specifically the amygdala have been implicated in the processing of negative emotion as well as the production of aggressive behavior (New et al., 2007). Taken together, the frontal region of the brain seems to be involved in controlling and mediating aggressive behavior produced by subcortical structures within the limbic system. Deficits in the prefrontal cortex or other areas of the frontal lobe that are involved in the inhibition of aggression may lead to less inhibition of the limbic system, a cortical structure primarily involved with the processing of negative emotions and the production of aggressive behaviors. Thus, an underactive or atrophied frontal region or an overactive or atrophied limbic region may predispose an individual to aggressive tendencies.

Several other disorders have been implicated with aggression in addition to neurological dysfunctions such as epilepsy and dementia. ADHD has been linked with aggression in childhood (Cha et al., 2015). A study conducted with children who have been diagnosed with ADHD found that a reduced nucleus accumbens (NAcc) volume as seen by MRI was related to impulsive aggression that is transmitted due to the inability to suppress anger; the NAcc is a neural structure that may play a role in the reward system of the brain and has been previously implicated with impulsivity in ADHD (Cha et al., 2015). This suggests that a deficit with impulsivity may lead to a higher prevalence of other impulsive emotions such as anger.

Another PET scan study focused on the dopaminergic system within individuals with high levels of aggression. The dopamine system is highly involved with the reward system of the brain and has been implicated with ADHD in the past (Schluter et al., 2013). As seen from the previous study, a cortical structure involved with the reward system also seemed to play a role in impulsive aggression seen in individuals with ADHD. Results of the PET scan study showed a negative relationship between dopamine-synthesis capacity and aggressive actions. This suggested that the lower the dopamine-synthesis capacity, the higher the likelihood of experiencing aggression. These results go hand-in-hand with the structural results found in the ADHD study with the NAcc, inferring that a deficit in structure or function of the reward system may play a part in the presence of higher aggression (Schluter et al., 2013).

Other PET investigations have also found several unique differences between individuals who exhibit high levels of aggression and those who have low levels. In addition to a potential relationship between dopamine and aggression, the neurotransmitter of serotonin may also be implicated in aggression (Cunha-Bang et al., 2016). A PET scan study was conducted on individuals with high and low trait aggression in order to determine the involvement of serotonin in the presence of aggression. Results found that low serotonin levels were associated with high trait impulsive aggression (Cunha-Bang et al., 2016).

Another PET study focusing on serotonin and aggression investigated whether the regional distribution of presynaptic and postsynaptic serotonin receptors was associated with aggression (Witte et al., 2009). They focused on the distribution of these receptors within both the prefrontal and limbic regions of the brain. Utilizing self-report measures of aggression and PET scans, results found a higher density of inhibitory serotonin receptors within the frontal areas of individuals with high levels of aggression. Moreover, with higher levels of inhibitory receptors in the frontal lobes, serotonin is more likely to be inhibited, decreasing the functioning of the frontal lobes. As previously mentioned, lower function-

ing of the frontal lobes may predispose an individual to aggression as this cortical region is responsible for controlling the cortical system involved in the production of aggression (Witte et al., 2009).

A separate PET scan study investigated the receptor binding potential of serotonin in individuals who have a history of violent and angry behaviors toward others (Meyer et al., 2007). They hypothesized that the serotonin receptor binding potential would be elevated in aggressive individuals. Receptor binding and presence generally have an inverse relationship to the amount of neurotransmitters within the brain. For example, if there are more receptors or a higher binding potential, there will likely be less extracellular serotonin levels. As seen from previous research, lower serotonin levels seem to be linked with higher aggression. Results showed that lower prefrontal cortex binding potential was related to higher aggression (as measured by questionnaires) (Meyer et al., 2007). All taken together, these research studies suggest that the presence or dearth of serotonin plays its own unique role in the occurrence of aggression.

Another population in which aggression is prevalent is within individuals with alcohol dependence. Individuals suffering from alcohol dependence have been shown to have a higher likelihood of being impulsively aggressive toward their partners, exhibiting intimate partner violence (IPV) (Zhang et al., 2011). One group of researchers conducted an MRI study focusing on the differences between individuals with alcohol dependence without a history of IPV and those with alcohol dependence with a history of IPV. They found that individuals who exhibited IPV showed a significant volume reduction within the amygdala. An additional population in which aggression can be found within is schizophrenia. Albeit individuals with schizophrenia are misrepresented on the media for being highly dangerous individuals, they do have a higher possibility of exhibiting aggression depending on the types of hallucinations and delusions they experience (Soyka, 2011).

Hoptman et al. (2006) conducted a structural imaging study on individuals with schizophrenia

and found that larger caudate volumes were associated with aggression. The caudate is thought to be involved with frontal-subcortical circuitry which was previously shown to be involved with the control of aggression. It is posited that structural differences of the caudate in individuals with schizophrenia may interfere with the normal functioning of the frontal-subcortical circuitry which may in turn lead to deficits in the control of aggression (Hoptman et al., 2006). Other studies within the population of schizophrenia have found that repetitive aggression is associated with reduced orbitofrontal gray matter and hippocampal volumes (Soyka, 2011). A SPECT study found that aggressive individuals with schizophrenia exhibited significant reductions in rCBF in the prefrontal cortex during an executive functioning task as compared with nonaggressive individuals (Spalletta et al., 2001). Similarly, an fMRI study showed reduced frontal activation in aggressive participants with schizophrenia (Kumari et al., 2006). Furthermore, studies within a different aggressive psychiatric population have shown similar cortical structures involved with aggression.

One major psychiatric population that has been utilized in aggression research is borderline personality disorder (BPD). This type of disorder is one that is characterized by emotional dysregulation, disinhibited anger, and aggression (New et al., 2007). Much like the hypotheses made earlier regarding frontal-limbic functioning within aggression, it is posited that there is a connection between the orbital frontal cortex (OFC), a part of the frontal lobe that is responsible for inhibition of affect and aggression, and the amygdala, a limbic structure also involved with the production of aggression. One PET study found that there was a positive relationship between the OFC and the amygdala in healthy individuals but a lack of a relationship between these structures in individuals with BPD, suggesting that a disconnect between the OFC and the amygdala leads to emotional dysregulation and the impulsive aggression seen in these individuals (New et al., 2007).

A PET scan study also reported significantly lower OFC activity in BPD patients as compared with healthy controls (New et al., 2009). A differ-

ent MRI study outside of the BPD population that focused on the OFC also found that OFC asymmetry was related to both impulsivity and aggression (Antonucci et al., 2006). This suggests that general dysfunction of the OFC with or without pathology may lead to higher aggression. Within BPD, another common structural finding in the past has been hippocampal atrophy (Zetzsche et al., 2007). This sparked interest within the research realm on whether or not this cortical difference was related to the emotional dysregulation seen within BPD. Within this study, hippocampal volume loss was shown to be related to higher aggression, suggesting that dysfunction of the hippocampus may affect several of its functions including aggression mediation (Zetzsche et al., 2007).

Within BPD, other potentially aggressive symptoms such as suicidal ideation may be present. The lethality of suicide attempts in particular could be a possible link to aggression as well in that high lethality of suicide attempts (i.e., guns) are more aggressive in nature (Soloff, White, & Diwadkar, 2014). In one MRI study, researchers attempted to focus on whether or not lethality of suicide attempts related to levels of aggression in individuals with BPD. Results found that individuals with high lethality showed increased gray matter volumes in the middle-inferior OFC. This differs from what would be predicted from previous research involving the frontal lobes. Most research studies have shown atrophy or lower volume of the frontal lobes in individuals with high aggression. However, albeit atrophy is a general indicator of potential dysfunction in a cortical area, increased cortical volume can also indicate dysfunction. Although it does not match with previous research studies regarding the frontal lobes, this particular MRI study still exhibited an abnormality of the OFC, supporting previous hypotheses that dysfunction of the OFC is likely related to aggression (Soloff et al., 2014).

Juhasz, Behen, Muzik, Chugani, and Chugani (2001) completed a PET scan study on children with epilepsy and aggressive behaviors to determine whether or not any functional differences were present. Results were consistent with results found in adults with epilepsy and aggression. The

prefrontal cortex in children with high levels of aggression was found to have lower levels of glucose hypometabolism, suggesting lower activation of the prefrontal cortex. Interestingly enough, they also found bilateral hypometabolism in the temporal neocortex with normal functioning of the medial temporal regions. This suggests that there may be a loss of input from the neocortex, reflecting a functional imbalance within the temporal region. This functional imbalance in turn may lead to a higher likelihood of experiencing aggression (Juhasz et al., 2001).

## Discussion

Each of these lines of research, when taken together, clearly indicates that aggression is a complex biological process which arises from very basic genetic components even in insects with a minimal central nervous system to complex integration of the higher cortical centers of the human brain with no single area fully responsible for aggressive behavior. These, in turn, interact with the environment, with even the fruit fly able to learn whether or not to be aggressive in a specific situation.

Looking at the human research, aggression is related to both hemispheric asymmetry of cortical activity and disruption of the balance between regulating higher cortical areas and limbic functioning. Hemispheric asymmetry is predictive of aggressive behavior throughout development and asymmetric functioning may improve prediction of and early intervention in the lives of aggressive individuals. Increased aggression may result from hemispheric asymmetry with either hemisphere dominant. The dominant hemisphere may give some indication as to whether aggression is state- or trait-related. These findings appear to hold across many different psychiatric disorders (as well as different methods of evaluation).

Whether it be borderline personality disorder, alcohol dependence, ADHD, temporal epilepsy, or any other disorder that involves aggression,

results have shown similar abnormalities of the brain. Frontal lobe dysfunction seems to be a highly prevalent finding within brain imaging studies. Hypoperfusion, low glucose metabolism, or structural changes have all been observed within the general frontal regions using SPECT, PET, and MRI scans. Several studies have found specific areas of the frontal lobe to be involved with the control and mediation of aggression such as the OFC and the vmPFC. Moreover, when this region is abnormal, the overall threshold for aggression decreases. Another common finding is temporal lobe dysfunction and deficits within the limbic system and amygdala, a specific cortical structure that mediates and produces aggression in individuals. The limbic region is one of the many cortical structures that is controlled by the frontal lobes. Once again, if the frontal lobes are deficient, the control over the production of aggression in the limbic system is reduced. Other studies have shown their own unique differences with regard to aggression such as caudate and hippocampus dysfunctions.

In considering this research we must remember that in all species there are different types of aggression which may be the result of different patterns of brain function or brain dysfunction. Most of the human studies have failed to look at different types of aggression, so the findings, while informative, depend on your definition of aggression, which can be physical or emotional or verbal, and may differ depending on whether it is the result of anger, frustration, stress, and cold calculation or whether it is accidental, and may also differ depending on the gender and age of the target. Second, in all species but especially humans, there is a clear role for environmental interaction with these neurobiological findings. Even the fruit fly can learn to mediate aggressive behavior: it is expected that humans have greater control except in extreme situations to control their own behavior. A complete understanding of human aggression and violence will need to understand the interaction of all of these factors.

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# Psychological Theories of Criminal Behavior

Laurence Miller

As objectively scientific as we may like to regard them, theories of criminal behavior are hardly immune to the vicissitudes of the prevailing culture. Indeed, the cycles of biological vs. psychological vs. sociological theories of crime seem to rise and fall in waves, according to the prevailing political and economic climate of the times. Under conservative administrations, the predominant attitude seems to be that people are responsible for their own behavior, so that when winners win it is to their credit, and when losers lose, it is their own fault. In more liberal political climes, we are more likely to regard ourselves as our brothers' keepers, and believe that how we structure the social and economic hierarchy can influence the actions of our fellow citizens for good or for ill. Not bad brains or bad morals, but bad social policies are what turn people into criminals, according to this view.

The present chapter introduces the reader to the main psychological models of criminality that consider the inner man but respect the outer influences upon his development—for good or for ill.

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## Early Criminal Psychological Typologies

Given its disruptive effects on societies around the world, and in all historic eras, people have always attempted to account for criminal behavior since the beginning of civilization. More recently, this eventuated in what might be termed the "era of typologies" of criminal behavior, spanning the past 100 years.

### Early Twentieth Century

At the beginning of the last century, the psychiatrist Havelock Ellis (1907) proposed a division of criminals into three major types:

*Instinctive Criminal*. This was the "born criminal" made popular in both the pulp fiction and scientific writings of the day. This individual was an impulsive, uncontrolled brute (in many depictions, complete with caveman-like beetling brows), whose criminality was so much a part of his personality and identity as to be impervious to correction or change, what Ellis characterized as a "moral monster." Ellis observed that this kind of dangerous, habitual offender is, thankfully, relatively rare.

*Occasional Criminal*. More common was the usually law-abiding individual who may on occasion succumb to the impulse to commit a crime

out of economic necessity, social pressure, or other situationally motivating factor. However, with repeated acts, and especially with the reinforcement of criminal peers, some occasional criminals might develop a taste for their depredations and evolve into the next type.

*Habitual Criminal*. This person has, over time, come to adopt crime as a way of life. While usually not as violent and dangerous as the instinctive criminal, the habitual criminal may engage in a string of petty crimes, punctuated by the sporadic major felony, until he is ultimately caught.

## Mid-Twentieth Century

Hans Abrahamsen (1952) took a more explicitly psychological approach, derived partly from psychodynamic theory, to categorize criminal offenders into four categories:

*Monetary offenders* are motivated by practical, materialistic needs; they steal for money or other valuables, or commit violence to maintain lucrative criminal territories.

*Neurotic offenders* are impelled by unresolved unconscious conflicts, which give their crimes a seemingly "senseless" character, such as in some cases of kleptomania, firesetting, or sexual fetishism.

*Unconscious guilt* drives still other offenders, the primary motivation being to place themselves at risk of being caught and punished; this subtype may sometimes overlap with the neurotic offender above.

*Character disorder* underlies the criminal activity of those offenders described as pathological liars and cheaters, swindlers and conmen, alcoholics and drug addicts, nymphomaniacs and pedophiles, rapists and murderers.

## Latter Twentieth Century

Allen Edward Guttmacher (1972) divided criminals into four groups, including:

*Normal criminals*. What is "normal" about these offenders is simply that they are the most common type, typically raised in dysfunctional families, associating with like-minded criminal peers, and generally engaging in a pattern of repetitive, petty, and mostly nonviolent crime.

*Accidental or occasional criminals*. Those in this smaller group are ordinarily law-abiding, but are lured or pressured into isolated acts of crime by particular persons or circumstances.

*Organically or constitutionally predisposed criminals.* These are criminals whose mental retardation, dementia, epilepsy, or other organic brain syndrome render them especially susceptible to impulsive criminal behavior or to being influenced by others to commit illegal acts.

*Psychopathic or sociopathic criminals*. This is the hard core group of dangerous, violent, repeat offenders who exploit and injure other people seemingly without compunction or restraint.

## Criminal Psychology Typologies: Common Factors

Distilling the common elements across these typologies seems to identify a number of prototypes: (1) a mostly law-abiding citizen that is occasionally tempted or goaded into committing an isolated crime; (2) a more habitual criminal who makes a lifestyle out of mostly petty offenses, but occasionally may commit a major offense; (3) a hard core predator who regularly commits serious offenses; and (4) a disturbed offender who, out of neurosis, psychosis, or organic brain syndrome is either driven, or cannot stop himself, from committing crimes, many of which may have a bizarre or seemingly senseless pattern. In modern criminological theory and daily forensic psychology practice, these major types still appear to have practical currency (Miller, 2012).

## Psychodynamic Theories of Crime

*Psychodynamic,* or *psychoanalytic*, models of the mind stem from the work of Sigmund Freud and his followers, although Freud himself would have been the first to concede that the philosophical

foundations of his theories go back further in time (Ellenberger, 1970; Miller, 1991b).

## Conscious and Unconscious Motives

A basic assumption of psychodynamic theory is that a large portion of human motivation and mental life is unconscious. We may think we are behaving for self-chosen, rational reasons, but much of the true motivation for what we do is purposefully kept out of conscious awareness. This is because much of our true motivation for doing things ultimately stems from sexual and aggressive instincts whose overt expression we are barely able to restrain under the demands of civilized living. In this model, human personality is formed in childhood as the result of how successfully each child negotiates the conflicts around sex and aggression that arise in a largely invariant set of developmental stages. Failure to adaptively work through these conflicts between instinctual drives and parental controls—later represented by the demands of society—leads to unhealthy repression of these conflicts and the potential development of various kinds of personality disturbance and psychopathology. On a day-to-day level, repressed instinctual sexual energy (*libido*) could also impel unconscious material to leak out in disguised form through the "big three" expressive modalities of psychoanalytic theory: symptoms, dreams, and parapraxes ("Freudian slips").

## Tripartite Mental Model

Freud developed several paradigms of the mind to encompass his theories, but the final model he endorsed, and the one most recognized today, was a tripartite model consisting of the id, ego, and superego. The *id* is the repository of instinctual drives and urges, a seething mental cauldron of secret desires that would be too disturbing for the individual to consciously acknowledge. Through development, the individual learns how to satisfy his or her instinctual needs (food, sex, power) by dealing constructively with reality, the main task of the *ego,* which employs the more rational cognitive functions of reason, reflection, memory, planning, organization, and task-persistence that enable the person to get what he or she needs in an appropriate manner, e.g., buying a meal at a restaurant instead of stealing someone else's sandwich, or bringing flowers to woo a prospective romantic partner instead of committing rape.

However, whereas the ego knows *how* to negotiate the demands of the real world to get the person's needs satisfied, it does not necessarily know *when* it is appropriate to do so; i.e., the ego is practical but amoral. As part of the process of learning the rules for being a socialized, civilized human being, the developing child internalizes the societal demands, strictures, and punishments as expressed by the first lawgivers he or she ever knows, i.e., mom and dad, and these parental dicta are later reinforced by the formal laws and conventional rules of school life, work life, and society in general. Out of this enculturation process develops each individual's *superego,* the codex of morality that governs our law-abiding behavior—what most people would call a conscience. In the best case, the child successfully assimilates reasonable parental rules, which are modified as appropriate to the child's age and growing responsibility, until a confident, independent, and well-socialized adolescent and young adult emerges. Yet, overly lax, excessively harsh, or confusingly inconsistent parental caretaking and discipline can send the superego careening in any number of unhealthy trajectories. Children with weak superegos fail to develop internalized restraints and therefore spend their lives guiltlessly gratifying their appetites at the expense of others, unmindful and uncaring of the harm they cause, the epitome of the psychopath. Conversely, an overly harsh and punitive superego binds the individual in anxiety and social inhibition, and leads the person to become self-doubting, self-loathing, obsessive-compulsive, and/or paranoid. In these cases, internalized anger at oneself may be expressed as anger at others, leading to seemingly paradoxical outcomes: both too-weak (stunted conscience) and too-harsh (reactionary lashing out) superegos

may be associated with habitual aggressive, anti-social behavior.

## Defense Mechanisms

To keep unwanted thoughts, urges, and painful truths about oneself out of conscious awareness, the ego mobilizes an arsenal of *defense mechanisms,* described most extensively by Anna Freud (1948), Sigmund's daughter. In moderation, psychological defenses are actually adaptive because they allow us to maintain a reasonable degree of self-esteem and productive motivation in daily life; few of us would be comfortable facing all of our own skeletons. Used excessively, however, defense mechanisms throttle self-insight and reduce us to blinkered automatons, buffeted to and fro by our repressed desires, but remaining enigmas to ourselves (even if our motives are sometimes transparently obvious to others). The major classes of defense mechanism, and their possible relationship to criminal or antisocial behavior, are as follows:

*Repression*. This is the basic defense mechanism that underlies all the others. It is an automatic, unconscious process that the ego uses to keep unwanted psychic material from awareness, e.g., not thinking about how you have hurt someone without being aware that you are not thinking about it.

*Suppression*. A conscious, purposeful effort by the person to keep painful information out of awareness, i.e., deliberately forcing yourself not to think about it: "I know that getting that student drunk and having sex with her was bad, but I just won't dwell on it." This is often aided by distraction: "I'll just think about something else."

*Denial*. The person deliberately refuses to recognize a painful truth that is otherwise objectively obvious: "Oh, no, I did not steal that laptop; it really belongs to me. See—it's the same brand as mine."

*Rationalization*. Coming up with a superficially logical or even laudable reason for something that is irrationally or malevolently motivated: "We're not stealing these clothes from the store; we're 'liberating' them to distribute to the poor and even out the unfair economic disparity of our unjust society. You should thank us."

*Displacement*. You want to express an emotion against one person, but it's not safe to do so (usually because they have some power over you or you need them for something), so you take it out on someone safer or more familiar (e.g., your boss has been picking on you, so you come home and violently explode on your family for some minor irritation).

*Projection*. Repudiating your own wishes, feelings, and motives by attributing them to someone else: "You hate me, you just want me to fail so that you'll look good at my expense. I'll get you for that."—when it's really you that harbors the resentment against the other's success. Projection is a fundamental defense mechanism underlying some forms of clinical paranoia, sometimes leading to preemptive retaliatory violence.

*Reaction formation*. Speaking or acting in just the opposite way to how you really feel, but being unaware that you are doing so, thus fooling yourself into believing that is how you really feel. For example, you lather syrupy praise on someone you secretly detest, or you join a celibate or peaceful cult in response to your own repressed uncontrollable sexual or aggressive urges. If challenged, you may resort to rationalization to explain your current lifestyle.

*Acting out*. Sometimes considered a combined subform of projection and reaction formation, the individual repudiates his repressed pain, shame, hurt, vulnerability, and weakness by aggressive displays that highlight displays of strength and rebellion. This is often imputed by criminal psychologists to some adolescents and young adults who "act out" the pain of their abusive upbringing by engaging in delinquent acts.

*Sublimation*. Considered the healthiest of the defense mechanisms, this turns a potentially destructive trait or predisposition into adaptively constructive behavior by channeling dark urges into socially beneficent actions. For example, a boy who likes to cut up animals becomes a respected surgeon instead of a serial killer; another adolescent who finds himself attracted to child pornography becomes a sex crimes

investigator instead of a pedophile; a third young man who is physically large and loves to fight becomes a competitive athlete instead of a street thug.

## NeoFreudian Criminal Psychology

Notwithstanding the examples above, psychodynamic theory has mostly remained within the realm of clinical diagnosis and treatment, not forensics. Nevertheless, a few scholars in the psychoanalytic camp have attempted to apply these concepts more directly to criminology. Freud himself emphasized the role of sexuality (*eros*) in human development, and only later in his career (Freud, 1915, 1923, 1930, 1933) came to acknowledge the role of aggression in human personality, after the horrors of the First World War shattered the illusions of European Victorian gentility and rendered inescapable the reality of humanity's violent side. Even then, Freud seemed to have had trouble accepting human aggression on its own terms and relegated it an artifact of a quasi-metaphysical death instinct (*thanatos*), whereby all life sought to regain its original state of inorganic stasis.

Nevertheless, some of Freud's contemporaries and followers recognized the independent role of aggression in human mental life. An early Freud colleague, and later apostate, Alfred Adler (1912, 1926), wrote about the *striving for superiority* and the *will to power* that drove different forms of human behavior, including criminal behavior. Karl Menninger (Menninger 1938; Menninger, Mayman, & Pruyser, 1963) chronicled the ways in which the aggressive instinct manifested itself in both individual psychopathology and societal disruption. Many of the so-called *neoFreudians,* such as George S. Klein (1958), Heinz Hartmann (1939), and Riley Gardner, Holzman, Klein, Linton, and Spence (1959) placed greater emphasis on the cognitive functions of the ego and discussed how the ego could mold the aggressive instinct into something positive and productively forceful, or allow it to assume a malevolently destructive shape (see Miller, 1988, 1990, 1991a, 1992 for reviews).

More recently, William Menninger (2007) has used psychoanalytic theory to explain the dynamics underlying episodes of mass violence that have become increasingly common over the past decades, and which he conceives of as being triggered by what he terms *uncontained rage.* The initial stimulus for this rage is the perception of some (real or imagined) shame-producing injury, insult, disappointment, or frustration that is regarded as being profoundly unfair, producing what is called a *narcissistic wound.* This outrage is experienced as emotionally intolerable and cries out for some kind of retributory response against the presumed blameworthy party. As recent events have shown, the scope of the destruction is limited only by the lethality of available weaponry. As also highlighted by recent events, the particular rationalization chosen to justify the assault (religious, moral, sexual, or personal motives) often seems inconsequential, as the violent individual will find or create almost any rationalization for his, ultimately internally motivated, act. Note also that theorists from the earliest days of psychoanalysis have pointed out how the gun is not simply a mechanism for killing, but represents, in both shape and function, the ultimate symbol of male potency and power.

As a psychological treatment modality, psychoanalysis requires a considerable dedication of time, and effort, and finances, involving regular and frequent therapeutic sessions, often spanning years, in order to help the patient break through his resistances to recognizing and overcoming the defense mechanisms that keep him from bringing unconscious conflicts to awareness and working them through. Even then, as Freud often pointed out, the best that can be hoped for is to "transform neurotic misery into ordinary unhappiness." Certainly, as a way of counteracting criminal behavior, the enormous expenditure of clinical resources necessary to treat each individual offender would be impractical, even if their cooperation could be elicited. Yet, psychoanalysis survives today, less as a commonly utilized treatment modality as much as a source of ideas and concepts that still hold fundamental validity. For example, the fact that many of us harbor impulses, fears, and wishes we are partly

or wholly unaware of, and the importance of early social relationships in forming character. If anything, many people are actually gratified by the idea that they may have levels, depths, dimensions, and potentialities to their personality that may remain untapped and yet to be explored.

## Behaviorist Models of Crime

Whereas psychoanalysis emerged from the fields of clinical psychiatry and medicine, with meanderings through introspective philosophy, *behaviorism* derived straight from academic and experimental psychology, via the works of Edward L. Thorndike (1932), Ivan Pavlov (1927), John B. Watson (1925), and B.F. Skinner (1938, 1953, 1974).

## Reinforcement and Behavior

The central empiricist premise of behaviorism is that all behavior is shaped and maintained by its consequences, and that what happens to an organism and what it actually does is all we can objectively observe and study—no inferred mental models or putative psychodynamics tolerated here. In its most extreme view, the behavioral scientist recognizes no fixed, innate traits or instinctual forces that differentiate one human being from another, and any individual can learn to be a sinner or a saint, depending on the complex network of rewards and punishment he or she is exposed to, what behaviorists call *contingencies of reinforcement.* Language and higher thinking, although unique to man, nevertheless represent just ever-more complex forms of learned behavior. What the Freudians would call the "unconscious" is, for the behaviorist, comprised of contingencies of reinforcement that the person has simply never become aware of, or that he or she has been reinforced for keeping out of conscious awareness by paying attention to something else. In fact, consciousness itself is no more than the ability to describe and manipulate one's own contingencies of reinforcement.

## Social Learning Theory

Applied to the field of criminology, behaviorism finds its most well-known expression in the *social learning theory* of Albert Bandura (1973, 1977), which recognizes that humans learn by observing others, as well as from direct feedback from their own experiences. Thus, in shaping our socialization within a given community, we can see what kinds of rewards and punishments happen to other people whose behavior we might wish to emulate. In some communities, if good things tend to happen to good people, that is the path we are likely to take; in other communities, where being the baddest punk on the block is what garners respect and material rewards, we will be swayed in that direction.

## Differential Association Theory

At the end of the 1938 film, *Boys Town,* Father Flanagan, played by Spencer Tracy, fixes his gaze heavenward and intones, "There are no 'bad' boys." The good padre could have been describing *differential association theory* (Matsuenda, 1988; Silver, 2000, 2006; Silver, Mulvey, & Swanson, 2002; Sutherland, 1929, 1932), developed within the same era as the movie. Differential association theory posits that criminal behavior, like all behavior, is learned, and that there are indeed no innately "bad" children, no predestined "born criminals." In this model, young delinquents-to-be learn two things from the antisocial families and communities they may grow up in. First, they master the specific techniques and methodologies of crime, such as picking locks, using a firearm, or buying and selling drugs. Second, more broadly, they learn to internalize their identity as a criminal, a rebel, an outlaw, gleaned from their own needs and values and those of their peers, because this identity gives them a sense of meaning and efficacy unavailable through any alternative life activity. Then, to reinforce and concentrate this strength-affirming self-image, they restrict their contacts to, i.e., "differentially associate" with, like-minded fellows and tune out alternative lifestyle perspectives,

further cementing their criminal identity, which leads to further differential associations, and so on, in a recurrently reinforcing cycle of criminal identity affirmation. Readers familiar with behavior genetics will recognize that differential association theory psychologically tracks the sociobiological concept of *gene–environment correlation*, where individuals essentially select and create the very environments that reinforce their natural tendencies (see Lykken, 1995, 2000).

Mechanistically robotic as it is sometimes made to sound, behaviorism may actually be potentially far more optimistic than the previously discussed psychodynamic theories which posit churning instinctual conflicts formed during fixed developmental stages as the origins of personality and behavior. In the behaviorist model, all we need do to improve the individual, or the whole society, is discover the counterconditioning programs that will unlearn the bad behavior and teach more socially adaptive behavior. Or better yet, find out what is the "best" method of parenting and community socialization in the first place, and then apply this to communities across the country, sort of like a vast behavioral immunization program, to prevent our children from going down the wrong path to begin with. Albeit, such an ambitious social engineering project would be dauntingly more complicated than it sounds. However, the behavioral approach at least offers an aspirational model that could, if the basic theory is correct, one day improve the health and safety of societies worldwide (indeed, such a behavioristic Utopia was set out in novelistic form back in 1948 by B.F. Skinner himself, in his novel, *Walden Two*). However, most people intuitively have a hard time accepting the idea that the sum total of their lives can be articulated as a set of contingencies of reinforcement, which they find "dehumanizing," which is why behaviorism has never come close to capturing the popular imagination the way psychoanalysis continues to do (plus the fact that Freud talked about sex way more than Watson or Skinner did).

## Self-Control Theory of Crime

It seems intuitively obvious that many crimes, especially "crimes of passion," result from a person's failure—due either to inability or unwillingness—to control his or her impulses. Indeed, "I couldn't help myself" is a standard exculpatory defense in criminal cases (Miller, 2012, 2013). The question is whether this is a generalized trait that can explain most criminal behavior.

Gottfredson and Hirschi (1990) developed their *self-control theory of crime* to explain why some people are more at risk for criminal behavior than others. A great deal of criminological and psychological research supports the idea that individuals characterized by low self-control are highly impulsive, egocentric, action-oriented, thrill-seeking, frustration-intolerant, easily irritated, prone to take risks, irresponsible to the obligations of school, work, family, and community, and frequently involved in deviant, maladaptive, self-defeating, aggressive, and criminal behavior. The role of low self-control in various crimes, including interpersonal violence, robbery, narcotics offenses, white-collar crimes, and generally recidivistic criminal behavior, has been widely supported, although it is probably not the only factor (Arneklev, Grasmick, & Bursick, 1999; Britt & Gottfredson, 2003; Cretacci, 2008; DeLisi, Hochstetler, & Murphy 2003; Evans, Cullen, Burton, Dunaway, & Benson, 1997; Gibson & Wright, 2001; Higgins, 2004; Longshore, Chang, Hsieh, & Messina, 2004; Paternoster & Brame, 2000; Piquero, MacDonald, Dobrin, Daigle, & Cullen, 2005; Pratt & Cullen, 2000; Schultz, 2004; Stewart, Elifson, & Sterk, 2004; Unnever, Cullen, & Pratt, 2003; Wiebe, 2003; Winfree, Taylor, He, & Esbensen, 2006).

In fact, many of the preceding descriptors sound like the traits associated with frontal lobe impairment which forms the basis of many neuropsychological theories of criminal behavior (Blair, Mitchell, & Blair, 2005; Glenn & Raine, 2008; Miller, 1987, 1990, 1998; Palermo, 2009;

Raine, Meloy, Bihrle, Stoddard, & La Casse, 1998). However, self-control theory's pointed repudiation of any biological explanatory framework has thus far unfortunately limited what could certainly be a fruitful area of collaborative research into the cognitive neuropsychology of crime.

## Crime and Human Nature

Attempting a grand synthesis of biology, psychology, sociology, economics, and politics, James Q. Wilson and Richard J. Herrnstein published their best-selling and now-classic volume, *Crime and Human Nature,* in 1985, at the height of what might be called the conservative social movement in American society. Based on exhaustive scholarship in multiple fields, these authors arrived at a conceptualization of criminal behavior that combines several key following factors, which coalesce and reinforce one another:

*Innate traits.* Impulsivity, low frustration tolerance, preference for short-term gains rather than long-term goals, and low IQ, especially low verbal IQ.

*Family environment.* Abusive or neglectful parenting and failure to teach self-control and socialization skills.

*Subcultural factors.* Association with delinquent peers and membership in gangs that endorse predatory criminal behavior as a mark of status.

*Schools.* These institutions influence the propensity toward criminal behavior in two ways: first, by the quality of education they provide as a means of personal betterment within the legitimate societal workforce, and second, by the values they inculcate as representatives of mainstream society.

*Economics.* This factor may heighten or reduce the tendency toward criminal behavior, depending on the way in which good or hard times influence the opportunities people have to legitimately earn what they want or turn to underground criminal economies, such as robbery or drug dealing.

*Mass media.* This has a twofold effect: first, setting up expectations of what constitutes the "good life," and second, legitimizing and glorifying aggressive behavior through TV, movies, and sensationalistic journalism.

## Criminal Thinking

In the traditional psychodynamic model, much attention is paid to unconscious emotional motivators or behavioral influencers. However, consistent with the work of the later neoFreudian *ego psychologists,* and paralleling the so-called "cognitive revolution" in general psychology, there has been a recent trend toward analyzing how criminals consciously think, reason, and rationalize to see if their mental processes are in fact fundamentally different from that of the noncriminal population (Samenow, 1984, 2002, 2007; Wellman, 1990; Yochelson & Samenow, 1976, 1977). Accordingly, in the typological tradition, a number of classifications of criminal thinking have been developed.

## Criminal Thinking Styles

One of the first modern systematic explorations of criminal cognition came from the work of Yochelson and Samenow (1976) who emphasized a qualitative difference between the way career criminals conceptualize the world and the rest of us do. For example, the authors described three cognitive processes, spanning different time periods in the commission of a crime, that enable a criminal to carry out a given offense:

*Corrosion.* This is a process of rationalization and justification that allows the criminal to discount the psychological impediments prior to committing a criminal act: "I deserve what they all have"; "It's a dog-eat-dog world"; "Everybody does it"; "The victim deserves it."

*Cutoff.* At the time of the crime, any last qualms about committing the deed are banished by a rapid cognitive cutoff device, often accompanied by an internal verbal cue, sometimes expressed aloud: "Screw it"; "Let's rock"; "Just freakin' do it."

*Power thrust.* After the fact, the criminal continues to justify his actions and to bolster his

self-image as a tough guy who takes what he wants: "I'm the man"; "No one messes with me"; "There are wolves and there are sheep, and I'm a wolf."

## Criminal Cognitive Patterns

Walters (1990, 2002) has adapted and expanded Yochelson and Samenow's (1976) conceptualization to elaborate eight cognitive patterns that he believes characterize criminal thinking:

*Mollification*. Rationalizing criminal behavior by blaming external forces: "The deck is stacked against me: I have no choice but to steal"; "He disrespected me so I have to smack him down so I don't look like a punk."

*Cutoff*. Quickly squelching any thoughts that would deter a criminal act: "Just do it"; "Don't wuss out."

*Entitlement*. Feeling that one is special and has the right to commit the crime: "I'm smarter/stronger than him, so I deserve to take what he's got"; "I bought her dinner, so she owes me sex, whether she wants to or not."

*Power orientation*. Having a need to be in control at all times: "They better know they can't mess with me"; "You gotta crack a few heads so they'll respect you."

*Sentimentality*. In some cases, the criminal tries to offset the perceived wrongfulness of his acts by invoking thoughts of the good things he has done: "Sure, I rob people—you gotta do that to survive. But at least I give some of that money to my old lady and her kids; I know plenty of guys who blow it all on drugs."

*Cognitive indolence*. Using mental shortcuts instead of trying to figure out complex problems: "I don't have time to think about getting extra money. I'll just buy those drugs and worry about the rent later."

*Discontinuity*. There is a lack of stability, reliability, and perseverance to the criminal's overall behavior and lifestyle; behavior is propelled impulsively, rather than being guided reflectively: "Hey, why waste brain cells thinking about consequences—I'm too smart to get caught." In many respects, this seems similar to the preceding category.

## Hostile Attribution Bias

*Hostile attribution bias* is the predisposition to interpret otherwise harmless or neutral words and actions of others as having malicious intent: "The world is a mean place and people will always try to get you if you don't get them first." These are children, adolescents, or adults who always seem to be "looking for trouble," and this may overlap with the clinical syndrome of paranoid personality disorder (Miller, 1990, 2012). Vicious cycles usually arise when other people become irritated and alienated by the constant suspicion, even direct attacks, on the part of the subject, and so come to really shun, revile, or retaliate against him, which only fuels his hostile attribution bias still further, in an escalating vicious cycle of recrimination and violence (Graham & Hudley, 1994; Matthews & Norris, 2002; Nasby, Hayden, & DePaulo, 1980; Quiggle, Garber, Panak, & Dodge, 1992; Tiedens, 2001; Zelli, Huesman, & Cervone, 1995).

### Me Versus Them

From detailed study of seriously violent inmates and parolees, Toch (1992) observed that these subjects harbor two main cognitive schemata that heighten their risk for violent behavior. *Self-preserving strategies* consolidate and enhance one's own view of oneself as powerful, entitled, and deserving of respect and high status: "I'm big, I'm bad, so do what I say or stay out of my way." *Dehumanization of others* mentally reduces other people to inconsequential worms who deserve to be exploited or defeated in order to enhance the subject's own status: "Who cares what they think—I'm the boss."

## Criminal Cognitive and Personality Traits

Analyzing FBI files utilized in criminal profiling, Palermo and Kocsis (2005) have derived a set of cognitive and personality traits that they believe underlie the thinking of habitual criminal offenders:

*Egocentricity*. The criminal believes that the world revolves around him and that other people's possessions property, sex, and status—are his for the taking.

*Impulsivity*. Emotionally shallow, rapid, and nonreflective is the criminal's response style, with little regard for the consequences or long-range implications of his actions.

*Frustration*. The downside of habitually failing to look before you leap is that many of your decisions will not actually get what you want—and may frequently bring you the exact opposite. Consequently, the offender may often feel powerless, overwhelmed and unable to handle the normal demands and responsibilities of life, but attributing this to the unfair and malevolent actions of others, dismissing his own role in this predicament, and leading him to project his anger outward onto others whom he either blames directly for his plight or at least resents for "unfairly" having what the criminal's blatantly unjust fate has denied him.

*Narcissism*. The criminal's frustration and outward projection of blame is underlain by a characteristic egocentricity, grandiosity, sense of entitlement, and hypersensitivity to criticism that is a core narcissistic component the criminal thinking style. For many criminals, failure to get the admiration and deference they think they deserve, leads to the aggressive acting-out of *malignant narcissism* (Kernberg, 1976), in which case the subject can go from seductively charming to explosively violent in the blink of an eye.

*Obsessive-compulsiveness*. Some criminals compensate for the impulsive, frustrated directionlessness of their lives by developing a rigid, opinionated, and stereotyped style of thinking and behavior; in essence, they veer back and forth between impulsive and compulsive, but virtually never attain that middle point of being adaptively reflective (Miller, 1989, 1990). Thus, their overall behavioral pattern shows a labile, inconsistent quality to it, often veering from a compulsive lack of flexibility at one point in time, to impulsive aimlessness at another; in both cases, perpetuating the sense of frustration noted earlier. Obsessive rigidity may also be seen in the

ritualistic behavior of some serial offenders (Miller, 2000, 2014a, 2014b).

*Paranoia*. It was David Shapiro (1965), the exponent of modern ego-psychology, who first delineated the continuities between the obsessive-compulsive and paranoid cognitive styles, both involving a rigid, stereotyped way of viewing the world and the actions of people in it. As numerous scholars have noted, many criminals carry around a major chip on their shoulder, mistrusting the motives of others and viewing every human interaction with suspicion. Being generally dishonest and deceptive themselves, they use the defense mechanism of *projection* (see above) to attribute these qualities to others, often provoking confrontations that only further confirm and entrench their jaded view.

*Sadism*. The essence of sadism is power, which is enjoyed through the infliction of pain and humiliation upon a vulnerable victim. This feeling of control and dominance is something the sadistic criminal craves, which explains why many crimes are committed with gratuitous violence beyond that necessary to accomplish a utilitarian goal (e.g., pistol-whipping or sexually molesting store employees and customers during a robbery). This sense of power offers a powerful antidote to the feelings of frustration and failure periodically experienced by many criminals, and, again, may be a key component of the motivation of some types of serial offenders (Miller, 2000, 2014a, 2014b).

*Aggressivity*. This is the obvious tendency of many criminals to use force as a means of getting what they want, but it also refers to a more general orientation toward interpersonal interactions, i.e., that talking and negotiating is for chumps and that power and dominance represent "the only language people listen to."

*Ambivalence*. Inconsistent in most things, this also applies to many criminals' relationships with other people, often showing conflicting feelings of love and hate toward mates, friends, and family members. In part, this is aggravated by the criminal's own lack of a stable self-image, which makes it hard to form stable relationships with others, and which is further fueled by his

characteristic suspiciousness and mistrust of others around him; this, it should be noted, is a core feature of the borderline personality disorder (Miller, 2012).

## Maladaptive Criminal Thinking Patterns

Recently, Mandracchia, Morgan, Garos, and Garland (2007) studied the thinking patterns of 435 convicted offenders, and derived a total of 77 *thinking errors* that they factor analyzed into three major categories:

*Control*. Most habitual criminals are into power in all aspects of their lives, and they shun any trace of weakness: it's all-or-nothing. To keep this inflated sense of invulnerability going, criminals attempt to control, manipulate, and intimidate others, while banishing any thoughts or feelings of anxiety or sentimentality from their consciousness.

*Cognitive immaturity*. In ironic contrast to their tough-guy image, many of these offenders are characterized by a childlike self-pitying attitude and a set of immature cognitive patterns by which they interpret the world and make decisions. They react impulsively, rather than think about consequences. They plan poorly and fail to follow through on commitments. They rely on generalization and intuition to the neglect of analysis and reflection. They have a rigidly stratified view of other people as allies, enemies, or victims to be exploited, and yet these perceptions can change abruptly. They externalize blame and self-justify their actions.

*Egocentrism*. It's all about me, me, me, and what I can do—and what others are supposed to do—to make me feel good about myself. Criminals assume the world is supposed to revolve around them. They consider themselves special and entitled. They avoid any activity at which they cannot excel quickly and easily. They assume people are always talking about them, and this may acquire a paranoid quality, impelling them to retaliate for perceived slights and confrontations.

## Implicit Theories and Criminal Cognitive Schemata

As we have seen, some theorists attribute criminal behavior to blind, irrational psychodynamic forces, others highlight the contingently reinforcing effect of social rewards and punishments, and still others focus on how criminals actually think about their choices and behaviors, how they make the decision to commit crimes or not. In one view, we all harbor our own idiosyncratic *implicit theories* (Polaschek, Calvert, & Gannon, 2009; Polaschek & Collie, 2004) about our lives and the world we live in. Implicit theories are composed of structured interconnected networks of beliefs, organized around a dominant theme or narrative that explains how the world works. An implicit theory provides an explanatory scaffolding to our identity, by which we justify our own actions and explain the actions of others. As guardians of identity (Staub, 2003), implicit theories are extremely resistant to revision and we naturally come to skew our interpretations of events in the direction of our implicit theories, which explains why ingrained beliefs and behaviors are so hard to change. Influenced by a combination of our genetic heritage, family upbringing, and experiences within our communities, our implicit theories may be cynical and malevolent or benign and accepting. Law-abiding citizens have their implicit theories and criminals have theirs. In this view, implicit theories typically express themselves in a series of *cognitive schemata* by which we recurrently interpret and direct our behavior in given situations.

Polaschek et al. (2009) describe five types of cognitive schemata that they have identified in their study of violent prisoners:

*Beat or be beaten*. If you do not make the first move to establish your dominant status, then others will take you for a punk. Usually this means that, on the slightest pretext of challenge or confrontation, the subject had better beat down his opponent decisively so there's no mistake about who's on top. Of course, this means that inevitably, the defeated party will be obliged to retaliate in order to reaffirm his own status in the power cycle.

*Self-enhancement.* Far from being seen as a threat or a burden, many of the violent prisoners in this study welcomed aggressive challenges precisely for the opportunities they provided to display their prowess and dominance. In this way, these men are constantly enhancing their own power image, and if sufficient challenges are not forthcoming, they may actively seek out confrontations to keep their power affirmations from getting stale. Since defeat or capitulation in any form is unthinkable, even a single such lapse will impel the burning urge for retaliation and reassertion of dominance, so essentially, the person is never finished fighting.

*Self-preservation.* Some of these men justify their "badass" reputations and behavior by convincing themselves that they have no choice: the world they live in is a cold, mean, predatory place and it is eat or be eaten. In some settings, such as a prison community or gang-ridden neighborhood, this may not be far from the truth. Sometimes, however, this paranoid attitude may generalize to people who might otherwise be considered harmless or even friendly, such as family members or romantic partners.

*I am the law.* Another kind of self-justification relates to a sense of inflated self-importance in which many of these men feel morally superior and entitled, even obligated, to "discipline" others when they believe the situation calls for it, all presumably in the service of keeping order or protecting those things and people important to them, thus elevating their violent activities to a noble purpose. Naturally, they expect the recipients of their one-man toughlove peacekeeping patrol to be grateful and, when the thank-you's fail to materialize, these erstwhile protectors may turn on their reluctant charges and punish them for their ingratitude and betrayal.

*I get out of control.* Heightening their sense of unpredictable and uncontrollable dangerousness, these men revel in their reputations as loose cannons or "crazy motherf—rs" because it imparts a force-of-nature invincibility to their reputations. It also provides an excuse for the overkill response that many of these men show in their rageful attacks: "If he didn't want his head beat in, he shouldn't have messed with me—every-body knows that once I get going, I can't stop till it's over." Interestingly, loss of control is rarely attributed to the effects of drugs or alcohol, which would impart an outside cause to the mental brake failure and thereby dilute its dangerously unpredictable impact: after all, if I'm only a potential monster when I'm drunk or high, does that mean you can mess with me when I'm straight? In fact, many of these men pride themselves in being able to "hold my juice" without getting overwhelmed by substance effects, and have utter contempt for those who become careless and sloppy when intoxicated or who let their lives be controlled by addiction.

## Commonalities in Criminal Thinking Typologies

Across the numerous typologies reviewed above, certain consistencies about the "criminal mind" seem to emerge. The habitual criminal is egocentric and narcissistic, and sees everything and everyone in terms of how they can benefit him. He is extremely invested in status, dominance, and power, and pursues these through a combination of cunning manipulation and explosive combativeness. He is rigid and inflexible in his thinking and sees everything from a me-versus-them perspective. He accepts little responsibility for his actions and justifies everything he does in an inconsistent and self-serving way. He eschews sentimentality, but may become agitated and depressed when he fails to get what he wants. His relationships are characterized by mistrust, hostility, exploitation, shallow emotionality, and instability. He lives in cold, cruel world, partly of his own making because he acts coldly and cruelly toward others, and partly because he surrounds himself with others like himself who mutually reinforce one another's adversarial worldview.

## Evolutionary Criminal Psychology

If certain people habitually act like animals, is it too far a leap to suppose that they may really *be* like animals? It was the Italian physician Cesare

Lombroso (1876, 1889) who first articulated the *theory of atavism* to explain the evolutionary basis of criminal behavior. Informed by the just-published works of Charles Darwin (1859, 1871), Lombroso regarded violent criminals as *atavisms*, throwbacks to earlier developmental human forms, some of whose members managed to elude extinction and now loped recklessly among us (Bernard, Snipes, & Gerould, 2010; Flowers, 2002). This conceptualization conveniently affirmed the separation maintained in the minds of polite European Victorian society between the more refined (and, according to the theory, therefore more evolved) social aristocracy and the brutish "lower classes," many of whom could now be viewed as essentially cavemen in modern clothing (the first Neanderthal skull was unearthed in 1856, coincidently, the year Sigmund Freud was born), whose feral natures were evidenced by their lust for mayhem. Lombroso even opined that these atavistic criminals could be identified by distinct physical characteristics, such as stooped stance, ambling gait, disproportionate limb length, sloping cranial shape, and "beetling brows."

Over a century of research and theory in anthropology, psychology, criminology, and evolutionary theory has resulted in a more refined model of *evolutionary psychology* (Buss, 2004; Gaulin & McBurney, 2003), which seeks to apply the principles of Darwinian evolution by natural selection to complex human behavioral traits and behaviors, including criminal behavior (Duntley & Buss, 2008; Duntley & Shackelford, 2008; Walsh & Beaver, 2008).

## Principles of Evolutionary Psychology

In Darwinian evolutionary theory (Darwin, 1859, 1871, 1872), all traits—physical or behavioral—survive within a population of organisms if they have individual or collective survival value with regard to the surrounding physical and social environments. Summarizing a vast literature (Buss, 2004; Cochran & Harpending, 2009; Duntley & Shackelford, 2008; Shackelford & Duntley, 2008; Walsh & Beaver, 2008), we can

boil down the major principles of evolutionary psychology as they apply to normal and abnormal, criminal and noncriminal, behavior (for a comprehensive review, see Miller, 2012):

*Many organisms, including humans, are social organisms*. Living creatures of many kinds, including humans, have evolved to live in interdependent social groups that increase the probability of species survival and perpetuation.

*Successful group living involves a balance of cooperation and competition*. Group living typically involves a complex combination of self-interest and communal cooperation, so humans had to evolve traits of compromise and deal-making, along with those of deceit and self-interest.

*Males and females have different reproductive strategies*. Generally, males seek to maximize the dissemination of their DNA by coupling with as many females as possible, while women strive to pick someone with the strength and status to be a good provider, while at the same time, being as sure as possible of his fidelity.

*Sex and aggression are powerful motivating forces in human societies*. Here, Darwin could easily agree with Freud or Adler. Males compete for the most attractive and reproductively fit females, which women vie for physically powerful and high-status males. Social hierarchies give the group a certain day-to-day stability, but the order may be periodically challenged by rivals.

*"Survival of the fittest" applies to groups as well as individuals*. For close-knit communal species like humans, *inclusive fitness* refers to the fact that individual members of a given clan or group will likely be bonded by varying degrees of genetic relationship: mothers and fathers, sisters and brothers, aunts, uncles, cousins, and so forth. So extending oneself, even risking one's life, for the safety and welfare of the group carries the probability that, among the saved, there will be some genetic relatives of the volunteer. Even when the bond is not genetic, but merely social, a second evolutionary behavioral principal, *reciprocal altruism*, means that if you help me now, I will help you later. Group cohesion and reciprocal altruism are thus powerful forces for mutual survival and perpetuation of social organisms,

which probably accounts for our modern concepts of social fairness and communal ethical obligation.

*Diversity contributes to overall group fitness.* We all know that people are different and not everybody can do everything. In humans, cognitive, personality, and behavioral diversity contribute to overall inclusive fitness by providing a range of talents for natural selection to operate on, thus giving a psychologically diverse group more flexibility in meeting a wider range environmental challenges.

## Why Have Psychopathology and Criminal Behavior Not Been Selected Out?

Some personality and behavioral traits, especially those that shade over into what we today call psychopathology or mental illness, may seem too extreme to have any appreciable adaptive value. For example, traits like severe aggressiveness and selfishness, not to mention psychosis and depression, would seem to be woefully maladaptive in most social groups and lead to ostracism, diminished mating opportunities, and the eventual extinction of these traits in the human population. Yet they persist, generation after generation, in small segments of almost any society. Why? Because most such traits and characteristics are not all-or-nothing entities; instead, within a given genetic family line, traits are expressed in greater or lesser degrees of intensity across different family members, and traits that are an adaptive liability in their extreme form may be a survival asset in more moderate doses.

Thus, one family member may be delusional, while some of his relatives are simply creative inventors or imaginative storytellers. Another group member may be destructively impulsive and violent, getting into fights with fellow tribemates, while his brother and cousins are fearless and bold, and make good soldiers and defenders of the group, as long as they keep their hands to themselves when at home. Since carriers of the more mild–moderate versions of the trait may occasionally have offspring in which the trait is abnormally concentrated, the severely afflicted

### How Evolutionary Psychology Made a Monkey Out of a Professor

In February 1992, psychiatrist Frederick Goodwin, director the US Alcohol, Drug Abuse, and Mental Health Administration, was addressing a meeting of the Mental Health Advisory Council convened to study the issue of violence, especially urban youth violence, as a public health concern. Seeking to place the problem in a broader evolutionary context, Dr. Goodwin drew an analogy between the behavior of male monkeys in the wild and violent young men in rough city neighborhoods. It was no coincidence, he said, that certain inner city areas are referred to as urban "jungles," because "the loss of social structure in this society has removed some of the civilizing evolutionary things that we have built up."

For example, Goodwin noted, only about half of male monkeys in the wild survive to adulthood, the remainder eliminated by their hyperaggressive and hypersexual rivals. An equivalent phenomenon, Goodwin seemed to suggest, existed in modern urban ghettos, wherein dwell a large proportion of disadvantaged minority citizens. Perhaps by studying the biobehavioral commonalities between ourselves and our primate cousins, the doctor mused, we might develop the tools to combat inner-city violence. Laudable enough, right?

*"U.S. Government Scientist Compares Poor Minorities to Monkeys!"* screamed the headlines, coast to coast. Of course, that wasn't what Dr. Goodwin was saying, just as readers of this chapter understand that phylogenetic behavioral continuity across species does not mean that we actually *are* those species. But the story was too good for the media—and Dr. Goodwin's critics— to pass up. Political activists with axes to grind pressed the case against Dr. Goodwin for incorrigible racism, and he was forced to resign his position from an organization that, remember, was supposed to be dedicated to the dispassionate scientific study of human behavior (Miller, 2012).

offspring need not mate himself or herself, as long as his less-affected siblings or cousins do, in order to assure a small but steady supply of such individuals in any particular population. The extreme forms of the trait are the societal "side effects" of the more moderate and adaptive forms, and that's why a few of each will always be with us.

## Evolutionary Psychology of Crime and Violence

Criminal behavior may seem like a form of extreme maladaptive behavior, but in certain contexts, it can be a highly efficient survival and reproductive strategy. Egocentric, aggressive, and remorseless individuals who are *resource poachers* and *reproductive cheaters* sacrifice a certain degree of solidarity and support from their communities and may risk censure, punishment, banishment, or execution for their actions. However, enough of them will survive by their cunning and intimidation long enough to disseminate their DNA and thus ensure the persistence of a small, but perniciously energetic subset of the breeding population. Indeed, all the things that most of us consider fun in moderation—"sex, drugs, and rock and roll"—are in some respect connected with reproductive fitness, e.g., getting a pumped-up high to dance all night and ultimately score for the evening. But for the hard core criminal cheater, these are not occasional recreations, they are his whole lifestyle. And, since he and his ilk devote so much extra time and effort to filching, fighting, and fornicating, at least some of them are likely to survive on the backs of ordinary solid citizens, at least long enough to leave copies of themselves behind to perpetuate the cycle (Miller, 2012, 2014c).

Evolutionary psychology has even been applied to what is arguably the most serious crime in most societies, homicide. According to *homicide adaptation theory* (Buss & Duntley, 2003, 2004; Duntley & Buss, 2008), the wanton killings of some individuals by others within a small interdependent tribal clan would have had a devastatingly destabilizing effect on group cohe-

sion and, therefore, on the survival of a widening circle of group members. Rival families would become embroiled in a vicious cycle of destructive blood feuds. Hunting, foraging, and tool-making would grind to a halt, and fractured group cohesion would make the clan more vulnerable to hostile groups, while fewer resources would be available to raise offspring. Powerful social forces, then, would have evolved to discourage frequent lethal combat within a clan, since groups that permitted such destructive free-for-alls were less likely to survive and pass on their genes.

Therefore, the theory argues, the rare circumstances in which killing a member of your own clan, tribe, village, or community would be evolutionarily advantageous would have to be where the benefits of killing a neighbor or even a family member clearly outweighed the attendant risks of censure, ostracism, or lethal revenge. According to the theory, these circumstances would include the following.

*Defensive or preemptive strike:* homicide to stop or prevent the killing, rape, injury, or exploitation of self, kin, mates, or coalitional allies, either now or in the future. Premeditated murder depends on the ability to plan ahead, which is a cognitive skill most highly developed in humans, but also seen more rudimentarily in many predatory species who stalk and hunt for a living.

*Resource protection*: killing to preserve the essential survival and procreative resources of food, clothing, tools, weapons, shelter, and mates from being robbed or pilfered by another group member. Naturally, this would be expected to vary according to the relative abundance or scarcity of such resources at any given time.

*Reputation management*: killing to prevent having to continuously fend off rivals by "making an example" of one or two prominent adversaries to establish your dominance status. Even today, homicide-related reputational enhancement—and with it, higher social status and greater mating opportunities—are seen in groups as diverse as the forest-dwelling Yanomamo of Venezuela (Chagnon, 1988) and the urban-dwelling gang members of New York and Los Angeles (Alvarez & Bachman, 2002; Ghiglieri, 1999; Vigil, 2003).

## Reproductive Primacy

Stepchildren would have been at increased risk of neglect, abuse, and murder by any new male mate of their mother, since this man would have had a genetic investment in maximizing the survival success of his own offspring, not some other man's. In good times, these stepchildren may have been tolerated or even welcomed as members of the male's new extended family, but in leaner times, they may well have been seen as expendable burdens. Even in modern societies, stepchildren are still at heightened risk for abuse and homicide (Miller, 2012).

## Quality Control

In the grim calculus of ancestral human survival, preservation of your family or the group as a whole, especially in tough times, may have depended on eliminating "dead weight," i.e., group members who could not or would not fend for themselves or contribute to the group's living activities. This might include genetically impaired children, infirm elderly members, or disabled adults. As in preindustrial societies today, ancestral humans probably did not make these decisions lightly, and these sacrificial homicides would not likely be regarded as murder, unless there was some intragroup political dispute over who should go and who gets to stay.

Duntley and Buss (2008) cite numerous examples of similar homicidal and infanticidal behavior across diverse species of social animals, including lions, wolves, hyenas, cougars, cheetahs, monkeys, chimpanzees, and gorillas (Crockett & Sekulic, 1984; Fossey, 1984; Ghiglieri, 1999; Wrangham & Peterson, 1996). In most of these species, infanticide of another male's offspring to induce estrus and sexual receptivity in the female is the primary motive, with intraspecific aggression between males typically being limited to ritualized combat displays involving nonlethal injury. Primates, however, especially chimpanzees, the hominoid apes most closely related to us genetically, have been observed to form coalitions to attack, murder, and often cannibalize rival group members or even unpopular members of their own group.

Applied to modern criminal law, homicide adaptation theory—and evolutionary psychology generally—may provide some insight into why human societies divide homicides into a variety of legal categories, such as first and second degree murder, manslaughter, and so on, each carrying a different weight of culpability and blameworthiness. According to the present theory, for a murder to be accepted without severe consequences within a small interdependent community, it had better have occurred for a legitimate or understandable reason. Killing another person to obtain more resources when you already had enough would likely not be tolerated in almost any society. Even when some justification could be found for your actions, such as clubbing a man to death upon discovering him in your cave with your mate (resulting, perhaps, in your killing her, too), this might be viewed more leniently when occurring as a "crime of passion" than where you plan, stalk, lie in wait, ambush, and kill your rival, i.e., murder in the first degree.

Nevertheless, like all theories, homicide adaptation theory and others which appeal to evolutionary psychology still must explain why some members of a group are more susceptible than others to aggression and homicide as an adaptational strategy. After all, there must be a reason why diversity of human personality has persisted in the human race, indeed, in most social creatures, or we would all have long ago become the same—or extinct.

## Summary and Conclusions

Psychological models of crime should be seen as complementary to, not competitive with, the biological and sociological explanations discussed in other chapters of this book. Psychodynamic theories of crime view deviant behavior as an expression of unresolved unconscious conflicts that drive antisocial acting-out through a series of defense mechanisms. Behavioral and social learning theories attribute all behavior, including antisocial behavior, to differential learning

experiences that occur in varied environments. Historically early theories of crime focused on the identification of a set of "criminal types," while more recent conceptualizations focus on temperamental and cognitive features of habitual criminals, such as levels of self-control and criminal thinking styles. The emergent psychological profile of the prototypical habitual criminal includes common traits of impulsivity, immaturity, narcissism, paranoia, sensation seeking, low self-control, and power orientation. These appear to reflect admixtures of biological predisposition (nature), environmental reinforcement (nurture), and self-selection (differential association/gene–environment correlation).

Finally, evolutionary psychology attempts perhaps the broadest integration of human criminality into the realm of normative adaptive behavior of people in the past and present, and, indeed, within the natural world as a whole. Individuals with extreme maladaptive traits may have relatives with lesser degrees of those traits that confer adaptive advantages for survival and self-perpetuation. Resource exploiters and reproductive cheaters (i.e., criminals) may be punished or banished when caught, but enough of them manage to get away with it so there will always be a subset of these scalawags in our gene pool. We still await the felony case where defense counsel endeavors to creatively utilize evolutionary theory as an exculpatory factor: "Darwin made me do it." Overall, modern psychological theories attempt to integrate finding from diverse fields, such as biology, psychology, sociology, economics, and criminology, working toward a kind of "unified field theory" of criminal psychology and of human behavior in general.

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# Behavioral Science Research Methods

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## Research Design

In a grave crisis situation, such as a hostage negotiation, it may be foolish and reckless for an individual to engage in behavior that is not supported by research—behavior that would be defensible to a police captain, lawyer, or jury. Yet, every day people rely on their intuition to guide their decisions; some of these decisions are benign, while other choices have serious consequences. Decades of research have repeatedly shown how easily influenced people are by pseudo-science, attractive individuals, authority figures, and others who they view as similar to themselves (e.g., Milgram, 1963). Therefore, criminologists must rely on research in order to overcome the flaws inherent in intuition and reduce crime most effectively. For example, many readers may be familiar with the Drug Abuse Resistance Education (D.A.R.E.) program, a drug prevention program for kindergarten through 12th grade. First launched in 1983, the D.A.R.E. program is currently being used in all 50 states and 53 other nations (D.A.R.E. Board of Directors, 2014), with estimated annual costs between $1 and 1.3 billion (Shepard, 2001). However, the results of multiple empirical evaluations have concluded that the DARE program is ineffective and may even be counterproductive (e.g., Clayton, Catterello, & Johnstone, 1996; Ennett, Tobler, Ringwalt, & Flewelling, 1994). Other programs that have been found to be ineffective or even detrimental through research include boot camps to reduce recidivism (e.g., Bell, 2012; MacKenzie & Souryal, 1994; Wilson, MacKenzie, & Mitchell, 2005) and peer-group interventions to reduce delinquency in adolescents (Dishion, McCord, & Poulin, 1999).

These examples illustrate the importance of using research to guide decision-making and to critically evaluate existing programs. Examples used throughout this chapter will elucidate other uses for research and explicate the valuable information that can be obtained from methodologically sound research studies.

This chapter reviews foundational descriptive, quasi-experimental, and experimental research design strategies, while highlighting each of their strengths and weaknesses. Clinical applications of each design will be presented, and their unique vulnerabilities to validity threats will be discussed. A summary of the different designs is presented in Table 1. After

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**Table 1** Categories of research

| Category | Key characteristics | Purpose | Types/designs |
|---|---|---|---|
| Descriptive research | • The systematic observation of behavior<br>• There is no attempt to manipulate the variables<br>• Data collection may occur at one point in time, across multiple time points, or may include analysis of previously collected data (archival) | • Gather information about a group or individual<br>• Develop theories and hypotheses<br>• Explore the statistical and temporal relationship between variables | • Naturalistic observation<br>• Participatory observation<br>• Case study<br>• Survey/Interview<br>• Case–control<br>• Cohort design |
| Quasi-Experimental | • There is manipulation of the independent variable(s)<br>• Random assignment is not feasible or appropriate<br>• Limited ability to evaluate causality<br>• Includes data collection at multiple time points | • Examine differences between groups on specific variables of interest | |
| Experimental | • Random assignment is used to assign participants to groups<br>• There is manipulation of the independent variable(s)<br>• Includes data collection at multiple time points | • Temporal precedence, statistical association, and nonspuriousness can be evaluated<br>• More resistant to internal validity threats, increasing the researcher's ability to assess causality | • No treatment control<br>• Waitlist control<br>• Nonspecific treatment or attention placebo<br>• Treatment as usual |

reading this chapter, the reader should have a firm grasp of the various foundational research design strategies and should have the skills to develop a strong study that is resistant to internal validity threats. Perhaps more importantly, information presented in this chapter should alert the reader to various flaws that are inherent in research, boosting the reader's critical thinking skills that are necessary to function effectively in nearly any field of study.

As this chapter is intended for a more scientifically mature audience, it is assumed that the reader has an understanding of some basic principles of research, such as the definition of: a theory, a hypothesis, dependent and independent variables, random selection and random assignment, and an operational definition. For a more rudimentary discussion of research design in criminology, the reader is referred to Schmalleger (2006).

## Descriptive Research

### Purpose

A researcher may decide to conduct descriptive research in order to gather more information about an individual or a group of people that share some common characteristic. For example, the researcher may:

• Wonder how early exposure to physical abuse is related to delinquent behavior in adult life.
• Be interested in the effectiveness of current interventions to reduce depression in inmates.
• Want to design a new treatment to reduce the incidence of drunk driving among those who abuse alcohol.

- Need to understand the relationship between physical aggression and violent video games.
- Like to identify the factors that put an individual at risk for joining a gang.

Goals of descriptive research depend upon the research question to be answered. These goals may include generating theories and hypotheses about human behavior, or exploring the statistical or temporal relationships between variables. In many cases, the goal of the research study will influence the study design and data collection strategies that the researcher will choose. Data may need to be collected across multiple time points by employing a longitudinal design (e.g., gathering information from the same person or group of people once a month for a full year), at one point in time with a cross-sectional design, or by reviewing and analyzing previously collected data through archival research. Additionally, the researcher might choose to collect data from a group of participants over time (a *prospective* longitudinal study), or might choose to collect data from participants *retrospectively*, after an outcome has occurred. Although not always feasible, prospective strategies should be used whenever possible due to increased reliability and accuracy. Although studies have shown little agreement between "real-time" and "retrospective" data (e.g., Nagurney et al., 2005), retrospective instruments vary regarding their degree of reliability. For instance, the Time Line Follow Back (Sobell et al., 1996), a retrospective calendar-based measure of daily substance use, has demonstrated excellent reliability for assessing retrospective substance use for up to 1 year (Robinson, Sobell, Sobell, & Leo, 2014). Whether considering retrospective or prospective data collection methods, psychometric properties of the data collection strategy should always be explored to increase the likelihood that data is accurate and meaningful.

### Gathering Information

Descriptive research strategies can provide rich sources of data, helping researchers better understand a phenomenon of interest, and assisting with the development of conceptual models, theories, and hypotheses. For example, if a researcher is wondering what variables put an individual at risk for joining a gang, he/she may decide to conduct unstructured interviews with family members of adolescents who joined gangs as well as family members of adolescents who did not join gangs. Examining differences between the two qualitative profiles may help the researcher develop theories about the risk factors for gang participation. This information could eventually be used to develop deterrent programs for youth who are considered to be at high risk.

Importantly, when the purpose of research is to gather descriptive information, causational conjectures cannot be made. That is, just because a team of researchers noticed that *Variable X* occurred more frequently in the profile of individuals who joined gangs than in the profile of individuals who it does not provide evidence that *Variable X* caused a person to join a gang. Nevertheless, they may develop a hypothesis from this type of research, which may fuel further exploration through an experiment to evaluate the causative relationship between variables.

While many different types of research designs might be employed when a researcher's goal is to gather information, the aforementioned example (i.e., exploring what variables put individuals at risk for joining gangs), would be considered a retrospective case–control design, a type of observational design where the researcher gathers information about two groups of adolescents (adolescents who joined gangs and adolescents who did not) to examine differences between the groups after the outcome (gang participation) already occurred. This type of study is not intended to provide causal information, but instead to create a theory or a hypothesis that can be tested in future research.

### Statistical Association

Another use of descriptive research is to determine whether or not there is a statistical association between variables. For instance, a researcher may be interested in learning whether or not there is a relationship between education and delinquent

behavior. To answer this question, the researcher would collect quantitative data about years of education (the independent variable, or IV) and frequency of delinquent behavior (the dependent variable, or DV), and then calculate a correlation coefficient between these variables. The correlation coefficient, often a *Pearson product moment correlation coefficient*, is a quantitatively derived description of the linear relationship between two variables, and ranges from −1 (a perfect inverse relationship between two variables, whereby if one increases the other simultaneously decreases at the same rate) to 1 (a perfect relationship between two variables, whereby as one variable increases or decreases so does the other in the same direction at the same rate). A correlation of 0 would indicate a lack of relationship between two variables. It should be noted that it is extremely rare to find a perfect correlation between variables because behaviors are multiply determined; that is, the DV is influenced by other factors aside from the IV. In fact, if two variables are perfectly correlated, the researcher should explore why a perfect correlation exists, and may determine that there is an artificial reason for the perfect correlation.

When examining the statistical relationship between variables, the researcher should also be mindful of the possibility that a confounding variable may wholly or partially explain the relationship between the IV and DV. For example, there is a strong positive correlation between ice cream sales and violent crimes, and there is also a strong positive correlation between the number of churches in a town and the frequency of violent crimes. In each of these situations, there is a third variable (warm temperatures, geographic areas of low socioeconomic status) that explains the relationship between the IV and DV. Ignoring the impact of confounding variables while also forgetting that correlation does not equal causation may incorrectly lead a researcher to hypothesize that eating ice cream causes a person to become violent.

Further, when two variables are found to be strongly correlated, the correlation coefficient does not provide any indication about which variable occurred first and may have influenced

the other variable. For example, a city that has fewer guns may have fewer violent crimes (a strong positive correlation), but does the low rate of crime explain why so few people have guns, or does the low rate of guns explain why there are so few violent crimes? Archival data of registered guns and police reports of violent crimes in the city from the last 20 years may help the researcher determine which came first, a concept which is discussed next.

## Temporal Precedence

Aside from understanding what variables are statistically related, a researcher may also be interested in knowing the order in which variables or behaviors occur. For example, the researcher may want to know whether: (a) exposure to violent video games led to physically aggressive behaviors, or (b) if the physically aggressive individual was simply drawn to these games, and consequently spent more time playing than those who were not physically aggressive. Understanding the order in which events occur is necessary to determine causation, and is called *temporal precedence*. Temporal precedence is best established with longitudinal prospective designs, as cross-sectional designs that ask individuals to recall the temporal order of events are generally less reliable.

It is important to note that just because two variables are statistically related and one occurred before another, does not mean that the first *caused* the second. In order to determine causation, a researcher would need to implement an *experiment*, which is described in detail below.

## Descriptive Research Designs

While there are many types of descriptive research, six commonly used descriptive research strategies will be discussed in this chapter: naturalistic observations, participatory observation, case studies, surveys/interviews, case–control designs, and cohort designs. Depending on the research question, the behavior of interest, ethical/legal guidelines, and available resources, one or more of these descriptive research strategies

may be most appropriate. Each of these descriptive research methods have strengths and weaknesses, and threats to validity must be carefully considered prior to initiating a study. Moreover, researchers must obtain appropriate institutional review board (IRB) approval to ensure that any research project that involves human subjects is being conducted in accordance with federal, institutional, and ethical guidelines (see Sect. "Ethical Issues" below).

## Naturalistic Observation

In a *naturalistic observation*, or passive observational study, the researcher does not intend to manipulate the environment or the individuals that he/she is observing in any way; in fact, in order to obtain the most objective data and prevent observer reactivity (i.e., conscious or unconscious change in behavior as a consequence of knowing that one is being observed), the researcher may take precautions in order to ensure that the individuals being observed are unaware that they are being observed.

Before beginning an observation, the researcher should operationalize the behavior that he/she is going to observe, and decide: who will be observed, the setting in which the participant(s) will be observed, and when to observe. Depending on characteristics of the behavior being observed, the researcher must determine the frequency of the observation(s), the length of observation(s), the duration of the observation(s) (over 1 day, over several months, etc.), and how the data should be collected. Narrative, event-based, or time-based recording strategies may be considered (see Suen & Ary, 2014). For example, a researcher may utilize a longitudinal "high risk" cohort design (Kazdin, 2003), where a group of individuals who were exposed to a risk factor (e.g., children who have a history of being physically abused by a biological parent and were removed from the home) are observed over time. Specifically, the researcher may choose to observe the children for 30 min on the playground using an event-based coding scheme, collect academic test scores (considered "permanent product recording"), and have the children's teachers complete surveys once

per month for 12 months following the last incident of abuse.[1]

Because data are being collected by humans, there is always error and subjectivity. However, there are steps that researchers can take when collecting observational data to increase reliability and accuracy. Strategies to increase the psychometric properties of the observational data should also be considered before data collection begins. For instance, two raters may be trained in data collection procedures and may be required to reach an interobserver agreement of 0.80 before data collection can commence. Of course, depending on the type of data being collected, different types of agreement (e.g., occurrence and nonoccurrence, correlation between two sets of scores) may be considered (Hintze, 2005).

According to generalizability theorists, an essential property of observational data is that data are *generalizable* across observers, time, setting, methods, and targets. That is, the incidents of physical aggression observed in the prison exercise yard collected during five 3-h observations this week using a specific event-based coding scheme are not useful for the researcher to understand the "usual frequency of physical aggression in prison exercise yards" unless this observational data is generalizable across observers, time, settings, method, and targets (i.e., prisons being observed). Although a discussion of generalizability theory is beyond the scope of this chapter, the reader is encouraged to consider the factors that may be limiting the generalizability and external validity of their observational data when making decisions. It is important to not make unfounded statements regarding the generalizability of findings.

## Participatory Observation

Conversely, there are instances when a researcher may choose to interact with the individual or group that he/she is observing in order to gain a

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[1] In this example, data was collected through multiple modalities and included multiple raters. This type of data collection is considered optimal because it provides the greatest amount of information and reduces error associated with each source of data.

more complete understanding of the group dynamic. For instance, policemen go undercover and join gangs or drug rings in order to learn more about the motives, roles, and inner workings of these groups. However, by joining these groups the police officers must take into account that their presence and behavior undoubtedly impacts group functioning, possibly biasing and distorting the data that they collect. Further, participating as a member of a gang or drug ring unconsciously impacts perceptions and beliefs, which may also threaten validity of observational findings. These biases must always be taken into account when interpreting participatory observation data.

Unique ethical issues arise in both naturalistic and participatory observation studies, because the individuals being observed are not consenting to be observed. Further, in the example above, there may be instances when an officer acts in unethical ways when he is engaging in activities with the gang members. The manner in which the officer handles these transgressions must be in line with ethical guidelines and the benefits must outweigh the costs. Thus, IRB approval is vital when considering an observational study, a topic which is discussed further in Sect. "Ethical Issues" below.

## Case Study

One type of descriptive research, a *case study*, is particularly helpful when the subject of interest is extremely rare, such as studying aggressive behavior and lack of empathy in men with XYY syndrome. There are also instances where a researcher may be interested in studying human behavior that cannot (ethically or otherwise) be manipulated through an experiment. For example, researchers have interviewed serial killers in order to understand their backgrounds, the ways in which they view themselves and the world, criteria for victim selection, and their motivations and behaviors (Beasley, 2004). Although information obtained from interviews with these serial killers provides detailed and personal data, information acquired from a handful of self-selected male criminals may not generalize to other serial killers or other types of perpetrators (the limits of

external validity are discussed later in this chapter). Further, the veracity of this type of data cannot always be verified (and serial killers may be particularly prone to lying as part of their pathology!). In case studies, the possible benefits of gathering rich qualitative data to help inform theory often outweigh the cost and obvious external validity limitations when other types of research are not feasible.

## Surveys and Interviews

Surveys, behavioral rating scales, and unstructured, semistructured, and structured interviews are frequently incorporated into research studies as methods to gather information. Surveys that are delivered and completed over the internet may be particularly cost effective for researchers, but have lower response rates (33%; Nulty, 2008) than paper surveys handed out face-to-face, or interviews conducted face-to-face or over the phone. Examples of surveys and rating scales that may be used in the field of criminology include the Personality Assessment Inventory (PAI; Morey, 1991, 2007), the Detailed Assessment of Post-traumatic Stress (DAPS; Briere, 2001), the Trauma Symptom Inventory, Second Edition (TSI-2; Briere, 1995), the Minnesota Multiphasic Personality Inventory, Second Edition (MMPI-2; Butcher et al., 2001), and the Test of Memory Malingering (TOMM; Tombaugh, 1996).[2]

In addition to formal surveys and interviews, data can also be collected by asking the individual to self-monitor their behaviors through journaling or electronic data collection strategies such as cellular phone applications. Other monitoring devices, such as wearable health technology, may also be used to gather data, and the researcher should ensure that these technologies are compliant with healthcare laws and patient privacy, such as the Health Insurance Portability and Accountability Act (HIPAA).

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[2]It should be noted that some of these instruments must be administered, scored, and interpreted by a licensed psychologist, an individual working under the supervision of a licensed psychologist, or another qualified mental health professional.

## Case–Control Design

Case–control designs refer to strategies where the researcher studies groups of individuals who vary on the outcome, or criterion, of interest. The most basic case–control design includes two groups, one group (the "case") which has the criterion of interest (e.g., a history of physical abuse as a child), and one group (the "control") which does not. By evaluating differences between the two groups, the researcher hopes to better understand the impact of the criterion on the groups of individuals who were exposed to it (Kazdin, 2003). Case–control designs may be cross-sectional, where case and control groups are selected and assessed in relation to current characteristics. They may also be retrospective, where the goal is to draw inferences about some antecedent condition that has resulted in, or is associated with, the outcome (Kazdin, 2003). For example, the researcher may be interested in studying two groups of adolescents who were both exposed to physical abuse as a child; the first group (case) has a history of delinquent behavior, while the second (control) has no history of delinquent behavior. By studying these two groups, the researcher hopes to identify variables that are associated with the outcomes. As previously discussed, when participants are asked to retrospectively recall information, this information is subject to biases and distortions, including selective recall, inaccurate recall, and recall biased by the outcome (Kazdin, 2003). Therefore, prospective designs are generally preferred to retrospective designs.

## Cohort Design

Also known as a prospective longitudinal study, the cohort design involves following groups of people over time to identify variables that lead to an outcome of interest. For example, the researcher may be interested in following groups of young children from neighborhoods with high gang involvement in order to identify the variables that lead to future gang participation. By tracking these children over time before they are involved in gangs (and assuming not all of the children end up joining gangs), the research will have the ability to quantitatively determine which variables predict gang participation and which variables may constitute protective factors, and predict resistance to gang involvement. This example is considered a single-group cohort design, because one group of children is studied over time to evaluate the emergence of an outcome (gang involvement). A researcher may employ a *multi-group cohort design* by following two or more groups who vary on a criterion (e.g., exposure to a risk factor) over time, or an *accelerated multi-cohort longitudinal design*. This modified longitudinal design is able to reduce the amount of time need to complete the full longitudinal study by evaluating multiple groups of individuals who are different ages across shorter intervals of time. For example, three groups of children (5, 8, and 11 years) may each be tracked for 2 years to understand the developmental path to gang participation from ages 5 to 13 without having to study the same group of children for 8 years. The accelerated multi-cohort longitudinal study may also reduce cost and attrition associated with more traditional lengthy longitudinal designs.

## Experimental Research

Whether a researcher chooses to use a descriptive research strategy or an experimental method depends on the research question, the population of interest, ethical/legal matters, and available resources. The key difference between descriptive research and experimental research has to do with whether or not the researcher is manipulating the IV. Examples of IVs that cannot or should not be manipulated include: exposure to physical or sexual abuse, gang participation, the number of times that a person has committed a violent crime, frequency of engaging in drunk driving, etc. In these cases, a descriptive strategy should be used in lieu of an experimental design. However, when feasible and appropriate, an experiment is preferable over descriptive research because an experiment is able to provide information that is not attainable through other designs—namely, it can determine causality.

There are many different types of experimental research designs, several of which will be explicated in this chapter. Frequently, researchers will incorporate a *control group* into the design that does not receive the experimental manipulation (IV). The purpose of the control group is to evaluate the effects of the IV on the DV *above and beyond* changes observed in the DV that are not due to the IV. For instance, if a researcher implements a new depression intervention for inmates, reduction in depressive symptoms at the end of the intervention could be explained by numerous factors aside from the actual intervention—the prison may have increased the time that inmates spend exercising or the time that they spend outside in the sunlight, a new friendlier warden may have been transferred to the prison, depression may have decreased with the coming of the spring months, or depression symptoms may have simply remitted over time. Similarly, the researcher might find that depressive symptoms actually increased following exposure to the intervention. While it is possible that the intervention was actually counterproductive and increased depressive symptoms, this change could also be due to other environmental factors. Therefore, the researcher may include a control group in the study as a way to measure the effect of these other variables on inmates' depressive symptoms. Without a control group, the researcher would not have a "bar" to compare results from the intervention group, making it impossible to know whether or not the intervention was effective.

Through various design strategies, the researcher attempts to control for variables aside from the IV that may influence the DV, which are considered threats to internal validity. In general, random selection and random assignment of participants to experimental and control conditions can help control for many threats to internal validity. Just as there are instances when the experimenter is unable to randomly select participants, there are also occasions when the experimenter cannot (for feasibility or ethical reasons) randomly assign participants to the experimental or control groups. For example, a researcher may implement Intervention A (radio messages warning against drunk driving) in City A, and Intervention B (road signs warning against drunk driving) in City B, to evaluate their impact on DUI rates. Because the researcher cannot randomly assign people to live in one of the two cities during the course of the study, a quasi-experimental research design may be necessary.

## Quasi-Experimental Designs

The key differentiating factor between experimental and quasi-experimental designs is that in the latter, the researcher does not randomly assign participants to groups. One of the serious threats to internal validity inherent in a quasi-experimental design is *selection*, as the lack of assignment makes systematic group biases more likely (Kazdin, 2003). Although researchers can identify potential confounding variables and attempt to control for them statistically through regression-based models, there is no guarantee that these corrections will equalize groups on important variables. For example, if the group of children who were abused largely came from single-parent homes while the children who were not abused came from two-parent households, it is not possible to truly "equalize" these groups of children through statistics.

Moreover, just because the groups may be equal on measured characteristics (e.g., family income, number of children in the household) that are believed to influence the DV, does not mean that they are equivalent on *unmeasured* characteristics. If these unmeasured characteristics are related to the DV, they can threaten the internal validity of the study. For example, adolescents who were physically abused as children likely differ from same-age peers who were not abused in many important ways. That is, teens with a history of abuse were likely exposed to countless other risk factors, such as inadequate housing, limited education, exposure to violent behavior, poor diet, etc. Consequently, without random assignment it is not always possible to statistically equalize groups of people on important variables that may influence the DV. Researchers must consider this possibility when drawing conclusions from a quasi-experiment.

## Features of Experimental Designs

In a true experimental design, participants are randomly assigned to study groups, and are strategically exposed to certain conditions or variables for a certain period of time, as determined by the experimenter. Before introducing the various experimental designs, several important features of experiments are discussed, including the selection of participants, ethical issues, and random assignment. Next, popular research designs are presented, including the no treatment control, waitlist control, nonspecific treatment or attention placebo, treatment as usual, and multiple group designs.

### Selection of Participants

In experimental studies, there are several ways to select participants. First, they can be *randomly selected* from the population of interest so that each individual from this population has an equal chance of being chosen to participate. Use of random selection is intended to increase the representativeness of the sample that is collected, decreasing potential bias in the sample.[3] Although random selection is highly preferable, it is not always possible. For example, if membership in a particular population is unknown (e.g., serial killers, drug dealers, sexual abuse victims), random sampling is impossible.

When considering potential participants for a sample, the researchers should consider the population to which they want to generalize the results. That is, studying drug use behaviors in adolescents from private schools and middle to upper socioeconomic backgrounds would not generalize, or accurately represent, drug use among adolescents from public schools and low socioeconomic backgrounds—an issue pertaining to external validity, discussed later in this chapter. Alternatively, a researcher may be interested in studying inmate behavior X. For practi-

cality reasons, it would be impossible to collect a random sample from the population of all inmates in the world. However, random sampling would become more feasible if the population is defined as "inmates from maximum security prisons in the Midwest United States." However, generalizability of results obtained from this study to other inmate populations is unknown—an empirical question that would need to be answered through follow-up studies.

Another way to select participants is through *convenience sampling*. This sampling method is "convenient," because the participants may have volunteered to participate or are easily accessible. Beyond accessibility, there is no scientific reason for the particular individuals to participate. While convenience sampling is generally economically advantageous when compared to random sampling strategies, the sample produced by convenience sampling cannot be considered representative, seriously threatening external validity of the study. For example, if researchers are interested in the effectiveness of different types of therapeutic preventative interventions in a prison setting to reduce recidivism, those who volunteer to participate may differ in important ways from those who declined participation. Inmates who volunteered for the study may be highly motivated, or may have different attitudes toward therapy than those who did not volunteer. Therefore, the results may not extend to other groups of inmates. Alternative sampling approaches, such as cluster or stratified sampling may also be considered, and the reader is referred to Daniel (2012) for more information about sampling.

### Ethical Issues

The Nuremberg Code, created in 1948, was the first document to advocate for voluntary informed consent from human subjects. This international document was developed following criminal proceedings against German physicians and administrators in 1946, which included charges for conducting medical experiments on thousands of concentration camp prisoners without consent. Most subjects died or were permanently crippled as a result of the experiments. The continued violation of human rights in research studies

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[3]While random selection strategies are intended to provide a representative sample of the population, random selection strategies sometimes fail, producing a sample that is not similar on important characteristics (e.g., race, age, gender) to the population. For information about alternative sampling strategies, see Daniel (2012).

(e.g., the Tuskegee Syphilis Study (Center for Disease Control, 2015), Milgram's Obedience Study (Milgram, 1963), Zimbardo's Stanford Prison Experiment (Haney, Banks, & Zimbardo, 1973)) led to the National Research Act (1974) and development of the Belmont Report. This report, considered a foundational document for the ethics of human subjects in the United States, outlines the principles of respect for persons, beneficence, and justice in research (United States, 1978).

In 1981, the United States government developed Institutional Review Boards (IRBs), and mandated that all research involving human subjects cannot initiate until it has been reviewed and approved by an IRB. The explicit purpose of the IRB is to ensure that all research studies are ethical, safe, and in line with federal, state, and international guidelines. In order to gain approval from the IRB, a study must take steps to reduce risk and to maximize benefit, and benefits from the study must outweigh potential risks for participants.

The IRB also classifies certain populations as "vulnerable populations," providing additional protection to ensure that their rights are protected. Vulnerable populations, as defined by the IRB, include: pregnant women, human fetuses and neonates, prisoners, children, cognitively impaired persons, students and employees, minorities, economically and/or educationally disadvantaged, and individuals who are AIDS/HIV positive. Therefore, when criminologists intend to work with one of these vulnerable populations, they must follow specific guidelines when developing research studies to safeguard potential participants' rights. Additionally, in 1996 the Health Insurance Portability and Accountability Act (HIPAA) was passed by Congress. This act provides additional protection of health care information, including confidentiality and regulations surrounding data collection, storage, and management. More information about IRB and HIPAA can be found at the U.S. Department of Health and Human Services website (http://www.hhs.gov/).

## Random Assignment

After participants are selected, they must be assigned to one of the study's groups. If possible, participants should be *randomly assigned* to a group to increase the likelihood that groups are equivalent on all important characteristics. Because random assignment is based on probability, similar to flipping a coin, it does not ensure equivalency. Therefore, before initiating a study, the researcher must verify that the groups are indeed similar on important variables so that any differences found at the end of the study can be attributed to the IV instead of another variable. If the groups are not equal, the researcher may need to reassign participants to groups. The researcher may also implement other techniques (e.g., matched-pairs design, randomized block design; Kazdin, 2003) to ensure equivalency.

To illustrate, consider the depression intervention scenario discussed above. If inmates self-selected or were assigned to a treatment group based upon when they entered the study, there may be meaningful differences between the groups at baseline. For example, one group may have more severe depressive symptoms and a history of recurrent depression. This example represents a threat to validity, called *selection bias*. When this threat is not accounted for, there is doubt as to whether preexisting differences between the groups are actually responsible for between-group differences in depression rates after the intervention, rather than the intervention itself. Although it is impossible to identify or measure all of the variables that may be related to depressive symptoms, researchers must decide a priori which variables are most important to equate between groups. For instance, they may decide that years in prison, gender, medication, or possibility for parole are important, as they are likely to affect depressive symptoms and response to intervention. Previous research can provide information about which variables may be most relevant. By equalizing groups on these variables, the researcher is strengthening the internal validity of the study.

## Popular Experimental Designs

Now that the reader is familiar with features of experimental designs, several popular designs will be introduced. This is not an exhaustive list of experimental designs, and interested readers are referred to Hagan (2014) for a more comprehensive review.

### No-Treatment Control

One common design in an experimental study is a no-treatment control design. In this type of design, one group receives an active intervention (the experimental group) and another does not (the control group). The two groups are assessed on the DV before the intervention takes place, called *baseline*, and again after the intervention. Importantly, the control group is only contacted twice—once for baseline measurement and once when the treatment group is finished with the intervention. In this manner, participants in the control group are receiving limited amounts of special treatment from researchers, such as attention or special privileges, factors which could increase *reactivity* and function as an intervention itself (Kazdin, 2003).

Take, for instance, a researcher who wants to evaluate the impact of a depression intervention for inmates. Inmates who meet a minimum level of depressive symptoms qualify for the study, and may subsequently be selected from a pool of other qualified inmates and assigned to either the experimental or control group. Both groups then complete a measure of depressive symptoms prior to initiation of the 8-week intervention, and complete the same measure at the end of the 8 weeks. If the two groups are relatively similar on levels of depression and other important characteristics at baseline, and if the intervention group showed significantly reduced rates of depression at the end of the study, the researcher may conclude that the intervention was effective.

This design controls for many types of threats to the internal validity of the study, namely maturation and history. By incorporating a control group into the study, the researcher is able to determine if changes in the experimental group's depressive symptoms are due to the intervention, or if they simply decreased with the passage of time. This threat to validity is called *maturation*. If the experimental group's depressive symptoms decreased while the control group's symptoms persisted, the most probable and parsimonious explanation is that the intervention was effective. Use of a control group also reduces the threat of *history*, or the possibility that an event other than the intervention accounted for changes in the DV.

Like any design, a no-treatment control group has limitations. One main limitation is the ethical issue of withholding treatment from people who may need it. A second limitation is related to the construct validity of the study, which speaks to the causal attribution for the intervention's effectiveness (i.e., why did depressive symptoms decrease in the experimental group?). The experimental group received not only the intervention, but also attention and special treatment that was not afforded to the control group. Therefore, it is possible that the reduction in depressive symptoms in the experimental group is due to the differential attention that this group received.

Last, in a setting such as a jail, the intervention may be diffused to the control group. For example, if an inmate from the experimental group and an inmate from the control group share a cell, the inmate receiving the intervention might share components of the intervention with the cellmate. This diffusion could attenuate actual differences between the groups.

### Waitlist Control

A similar, yet distinct type of experimental study is one that utilizes a waitlist control group. In this design, the control group receives the intervention after the experimental group received the intervention. This design addresses the ethical issue of withholding treatment from a vulnerable population, while simultaneously addressing validity threats of history and maturation.

A limitation of this design when compared to the no-treatment control is that a waitlist control group does not allow for the inclusion of follow-up studies. That is, in a no-treatment control design, researchers could feasibly assess differences

between groups *X* months after the intervention to evaluate rates of relapse. However, in a waitlist control design, these comparisons are impossible to conduct. Further, differential attention and diffusion of treatment remain possible threats to validity with this design.

## Nonspecific Treatment or Attention Placebo

In order to disentangle the effects of attention and contact with participants from the true intervention effect, a nonspecific treatment (also called an "attention placebo") can be incorporated into the study design. In the attention placebo group, participants experience some nonspecific aspects of an intervention that are potentially "active" (i.e., they have the potential to influence the DV), such as attention from a researcher and active listening from a therapist.

While intended to account for issues created by no-treatment or waitlist control groups, the use of an attention placebo has its own unique limitations. First, developing a "nonspecific" treatment is conceptually problematic. Second, it is difficult to create a control group that specifically provides attention without exposing participants to other potentially active components of the intervention. For example, in an attention placebo group with a therapist, the therapist may utilize jargon or therapeutic language that may be considered part of the active intervention. Third, if the attention placebo is expected not to produce an effect, then it may be unethical to administer an ineffective intervention to a vulnerable population. Finally, depending on the setting of the study and the contact of participants across intervention and control groups, diffusion of treatment may be a potential limitation of this design.

## Treatment as Usual Group

A researcher may need to know whether a new intervention is more effective than the standard of care that is currently being utilized (referred to as "treatment as usual," or TAU). For example, a new educational prevention program to reduce rates of drunk driving may be compared to the current educational materials that are provided during standard Driver's Education courses. In this

scenario, new drivers may be randomly assigned to receive the new educational materials (experimental group) or the standard educational materials (TAU), and their driving records may be tracked for DUIs over the next 12 months.

Treatment as usual (TAU) comparison group studies eliminate the ethical dilemma of withholding treatment inherent in the no-treatment control, waitlist control, and attention placebo designs by providing standard treatment. Unfortunately, the TAU design is unable to account for maturation, or the possibility that the behavior decrease on its own without any intervention. Consequently, this limitation has led some researchers to use multiple groups designs, discussed next.

## Multiple Group Design

In a multiple group design, more than two groups are incorporated into the study. The choice of which type of groups to include depends on what the researcher is studying and the question that he/she is trying to answer. Further, in some cases, no standard of care may exist, or withholding intervention through a no-treatment control or waitlist design may be considered unethical or denied by the IRB.

In general, incorporating different types of control groups into a study increases the researcher's ability to rule out threats to validity. However, the benefits of having multiple groups needs to be weighed against the costs; having several different groups may tax limited resources and make it more challenging for the researcher to obtain an appropriate sample size for adequate power.

## Threats to Validity

Although threats to validity have been mentioned throughout the chapter, this section reviews these threats and highlights additional threats that may be encountered in research. When designing a study and considering various threats, the researcher should prioritize internal validity. Simply, internal validity is the likelihood or plausibility that the IV accounts for changes in the DV. To protect internal validity, the research

study must render alterative explanations of the results implausible through careful study design (Kazdin, 2003). Without internal validity, the results of the study are uninterpretable and meaningless. External validity, or the extent to which results generalize to the population of interest, should be prioritized next, along with construct validity, or the presumed reason for *why* the intervention produced the outcome. Finally, statistical conclusion validity, or the extent to which the statistical analyses used in the study support the conclusions drawn about the intervention and the outcome, should be considered. The following review focuses on threats to internal validity. Further information about validity threats can be found in Kazdin (2003).

## History

The internal validity threat of history is plausible when events common to all subjects within the experiment or outside of the experiment may be responsible for the results. Consider the following example: during the course of an intervention intended to reduce drunk driving, several teens from a high school within the community where the study is taking place pass away from an automobile accident related to drinking and driving. This tragic event may easily explain reduced rates of drinking and driving over the next few months. If the research study did not include a control group that was administered during the same time as the intervention, the impact of the intervention would be unclear.

## Maturation

Maturation, or the process of changing over time, is often associated with change in a variety of outcomes. For example, psychological symptoms may change as individuals get older (e.g., only about half of children diagnosed with oppositional defiant disorder will meet criteria for the disorder 3 years after diagnosis (Barkley, 1997); symptoms of attention-deficit/hyperactivity disorder typically decline over time (Biederman,

Mick, & Faraone, 2000)). This threat, which often co-occurs with history, can be evaluated with the use of control groups.

## Selection Biases

Selection biases can seriously threaten validity when differences between groups at baseline are related to the DV, or outcome of interest. Often, selection biases can be prevented through the assignment of subjects to groups, and verifying that the groups are equal on important characteristics prior to intervention.

## Attrition

Another serious threat to internal validity is *attrition*, or participant drop out. Attrition becomes problematic when there is differential attribution between groups, which disrupts random assignment. For example, when considering the treatment study for depression described above, the researcher may initially conclude that the intervention demonstrated a significant decrease in depression symptoms and that this decrease was significantly greater than the change in the control group's depression symptoms. However, this finding might be explained by attrition if, for example, the individuals with the most severe levels of depression were not benefitting from the intervention and dropped out of the experimental group. Thus, researchers should attempt to understand the reasons for attrition and should attempt to quantify attrition across groups and, in some cases, attempt to statistically control for the attrition.

## Diffusion of Treatment

Diffusion of treatment occurs when participants in the control group receive the intervention. This may be more likely when participants live in close proximity to one another and have frequent contact, such as in a prison. If the intervention is effective, diffusion of treatment attenuates the

impact of the treatment, and enhances the impact of the control condition (e.g., TAU, attention placebo). In this case, the effect of the intervention may be found not significantly different from the control group, causing the effective intervention to be deemed "ineffective."

## Reaction of Controls

When individuals participate in a control group, they may receive additional attention, support, special privileges, or monetary compensation. Each of these factors can significantly impacting the participant's behavior and mindset, potentially influencing the study's outcome. Additionally, if an individual knows that they are participating in the control group, this knowledge could also influence their behavior in unpredictable ways (e.g., compensatory performance or demoralization; Kazdin, 2003). In fact, if a participant is aware that they are participating in an experiment, even if do not know whether they are in the experimental or control group, this could led to attenuation or exaggeration of the outcome. Therefore, when appropriate researchers should strive to utilize "double-blind" (the researchers delivering the intervention and the participants receiving the intervention are unaware of group status) procedures, these procedures may not fully protect against reactivity.

## Conclusion

The purpose of this chapter was to provide the reader with an understanding of the importance of research design and its impact on the type of information gathered through empirical studies. Important issues such as ethics within research, threats to validity, and types of experimental and nonexperimental design were presented. Types of participant selection and recruitment, and data collection were also outlined to help readers appreciate the ways in which study design methodologies can be employed to counter validity threats. The ultimate goal of this chapter was to increase readers' acumen as consumers of research and research scientists.

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# Part II

# Violent Crime by Children and Adolescents

# Animal Cruelty Offenders

Tia A. Hoffer and Holly Hargreaves-Cormany

## Case Example 1

The offender was arrested for killing a 19-year-old female. David[1] initially came up in the investigation when witnesses came forward identifying a work pick-up truck that he was driving that day. The investigators interviewed David and asked to look in his truck. The investigators noticed something that looked like blood. David stated that a young woman walked in front of his truck and was injured. He tried to drive her home, but she became very upset, jumped out of the truck and hit her head. He stated that he put her in the back of his truck and since she was already dead he disposed of her body in a beautiful place. David was given a psychological evaluation and made statements regarding killing feral cats that were in his neighborhood. David did so by catching them, cutting them, eviscerating them and drowning them. A friend of his observed him killing the cats and stated that David was very excited and bragged about it. The psychologist did not incor-

porate this information into the evaluation because he did not think it was relevant to the homicide allegation of the young woman.

## Description of the Problem

The link between violence against animals and humans has been well documented in the literature (Arluke, Levin, Luke, & Ascione, 1999; Ascione, 1998, 2008; Ascione & Shapiro, 2009; Ascione, Weber, & Wood, 1997; DeGue & DiLillo, 2009; Gullone, 2012; Taylor & Signal, 2013). The Federal Bureau of Investigation (FBI)'s Behavioral Analysis Unit (BAU) conducted a research project examining 259 offenders[2] who were arrested for active animal cruelty offenses against 495 animal victims. Active Animal Cruelty is defined as physical abuse towards animals such as torture, beating, burning, drowning, suffocating, shooting, and other forms of physical abuse. A number of research studies in the literature collapsed samples of active, sexual and neglect animal cruelty cases. Hoffer, Hargreaves, Muirhead, and Meloy (n.d.) conducted a project that focused solely on active animal cruelty offenders to provide additional insights into offenders' propensity for violence

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[1]Case examples have been adapted from true events, however the names have been changed.

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[2]Though the majority of the sample was male, female animal cruelty offenders certainly exist. However, for ease of reading the authors will use the pronoun he/his.

among this population. In addition to those insights, the authors will also provide considerations for the investigative approach to these cases and the assessment of animal cruelty offenders' violence potential based on a review of animal cruelty literature as well as discussions with investigators, attorneys, mental health professionals, and veterinarians. The authors examined animal cruelty through the broader lens of antisocial behavior, such as violence and aggression, through the model of affective and predatory violence against persons (Meloy, 1988, 2006; Woodworth & Porter, 2002). Affective violence, which is also referred to as reactive violence, can occur impulsively as a result of emotions such as anger and/or fear in response to a perceived threat. For example, a man who hits his girlfriend because she is talking to another man and thinks that she is cheating on him. His violent actions are triggered by his feelings of anger and jealousy. Predatory violence is characterized more by greater planning and cognitive awareness and less by physiological arousal and emotions. It typically lacks a specific threat. An offender who targets victims, stalks them, plans the attack by obtaining weapons prior to the incident, plans the approach act and routes of escape is an example of predatory violence.

## Historical Background

Multiple studies have supported the association between animal cruelty and interpersonal violence referred to as "the link" (Arluke et al., 1999; Ascione, 1998, 2008; Ascione & Shapiro, 2009; Ascione et al., 1997; DeGue & DiLillo, 2009; Gullone, 2012; Taylor & Signal, 2013); however, a definitive link between animal cruelty and Interpersonal Violence (IPV) cannot be assumed for every animal cruelty offender. Research into the link may provide a greater understanding about individuals who commit acts of violence against humans and animals. The results of studies of offenders who commit animal cruelty and interpersonal violence can be useful to law enforcement, animal control, veterinarians, mental health professionals, and

prosecutors during the investigative, prosecutive, and assessment processes.

The connection between animal cruelty and violence against persons has a long history. In 1961, MacDonald proposed a theory, the "triad," which indicated that children who have a history of enuresis, fire-setting, and cruelty to animals may have increased propensity for violence (Unti, 2008). Hellman and Blackman (1966) examined MacDonald's theory in a study with results which suggested that the aforementioned triad of childhood behaviors was associated with animal cruelty (Arluke et al., 1999; Unti, 2008). However, when MacDonald conducted a controlled study comparing a group of violent psychiatric patients to a group of nonviolent psychiatric patients, the results suggested that there was not a statistically significant association or difference between violent psychiatric patients' and nonviolent psychiatric patients' likelihood of committing animal cruelty (Arluke et al., 1999). Although the theory of the "triad" was not empirically supported in further research, the link between animal cruelty and interpersonal violence remains and has been supported in a number of studies.

There have been two main theories regarding how the link between aggression and violence against animals and humans develops. Initially, the violence graduation hypothesis theory was presented to explain the link, indicating that offenders initially commit animal cruelty and then "graduate" to perpetrate violence against humans (Arluke et al., 1999). There has been little support in the literature regarding the temporal aspect of this theory (Arluke et al., 1999). Subsequently, the deviance generalization hypothesis asserts that offenders who commit one form of social deviance will likely have a greater propensity for other social deviance (Hoffer et al., n.d.; Arluke et al., 1999; Randour & Gupta, 2013).

With the inclusion of Animal Cruelty as a felony charge in the FBI's Uniform Crime Report (UCR), additional data will soon be gathered to obtain more accurate numbers related to offenders who commit Animal Cruelty and the trajectory of violence perpetrated against humans and animals. This will allow the theories of the link, including

the graduation hypothesis and the deviance generalization hypothesis to be further examined in studies with larger samples across a wider time spectrum.

Hoffer et al. (n.d.) examined 259 adult offenders who were arrested for active animal cruelty including offenses such as: beating, shooting, burning, kicking, punching, etc. against 495 animal victims. The majority were Caucasian males, with an average age of 34 and the majority of the animal victims were dogs (64%, *n* = 316). Although the study captured criminal history using NIBRS, the report categories were reorganized and the following results were obtained: Interpersonal violence; Sex Offenses; Sex Offenses against Children; Other Offenses against Children; Property/financial crimes; Substance Uses and Abuses; Rule/court violation; Traffic; Arson; Animal Cruelty; Weapons; and Minor Miscellaneous.

## Epidemiology

There are a number of factors that have been identified that may contribute to the likelihood of crossover violence towards animals and humans. Ascione (2008) found that the following factors have been identified as indicating the link: (1) Frequency of animal cruelty acts perpetrated by the offender; (2) The attempt to conceal the animal cruelty act; (3) Whether the offender committed the act alone or with others; (4) Expressions of empathy; (5) Demographic characteristics, such as race, gender, age, education, and occupation; (6) Whether the offenders lived in a rural or urban location; (7) Socialization; (8) Past experiences; and (9) Nature of the animal. Agnew (1998) observed some of the same factors to explain animal cruelty, in addition to the individual's level of strain or stress, degree of social control, social position, and nature of the animal victim. Merz-Perez, Heide, and Silverman (2001) found other factors that might contribute to the link between animal cruelty and interpersonal violence including: (1) The type of animal cruelty committed; (2) The type of animal targeted, and (3) The offender's response to the animal

cruelty. Finally, multiple acts of animal cruelty indicated that the offenders were more likely to commit animal cruelty to control the animal (Merz-Perez et al., 2001).

Many of the studies examining animal cruelty and its link to violence against humans include small sample sizes, which might decrease confidence in the findings and limit the generalizability. Alternatively, Vaughn et al. (2009) conducted an epidemiological study in the United States of America with surveys completed by a nationally representative sample of 43,093 adults. The results indicated that all of the antisocial behaviors examined within the study, such as robbery, harassment, forcible sex acts and arson, were associated with animal cruelty. In addition, Abel's (2008) study of 44,202 adult males found that sexual abuse of animals was the most significant predictor of child sexual abuse (G. Abel, personal communication, 11/06/2013).

## Characteristics of the Offenders and Offenses

### Animal Cruelty Perpetrated by Children

The majority of the literature regarding animal cruelty has focused on children who perpetrate animal cruelty. The literature has also examined animal cruelty within the context of other antisocial behaviors (Hoffer et al., n.d.; Randour & Gupta, 2013; Vaughn et al., 2009). Tapia (1971) found that children who committed cruelty towards animals displayed various antisocial behaviors in addition to the animal cruelty. Although the sample size for the study (Tapia, 1971) was only 18 participants, this research was the first sound and systematic study on children who commit animal cruelty (Arkow, 1997). Tapia found that children who are perpetrators of animal abuse have an average IQ of 91 (thus excluding mental retardation as an etiological factor); are typically an average of 9.5 years of age (Range: 5–15 years of age) and male with histories of parental neglect and abuse (Arkow, 1997).

Rigdon and Tapia (1977) also completed a follow-up study in 1977 on the same group of children (*n* = 18), composed of all males whose primary presenting issue was cruelty to animals. The follow-up study results on the same group of participants indicated that the vast majority of participants continued to engage in animal cruelty and experience external factors (e.g., unstable and dysfunctional families) including incarcerated parents and parents with substance abuse and mental health issues. Thus, further development towards adulthood did not decrease the participants' commission of animal cruelty (Tapia, 1977 as cited in Arkow, 1997). These studies concluded that many of the children exhibited various antisocial behaviors, such as bullying, fighting, stealing, and fire setting; yet, the specific relation to animal cruelty was unclear (Arkow, 1997; Tapia, 1971).

Felthous (1980) continued to examine childhood animal cruelty in a study he conducted with two groups of male psychiatric patients; the first group had a history of animal cruelty and the second group had a history of assault (Arkow, 1997). Felthous's (1980) findings indicated that the two groups were similar in regards to abuse from parents, behavioral outbursts and truancy, however, the group of participants with the history of animal cruelty had enuresis beyond age 5; set destructive fires and had an alcoholic father with whom they were separated (Arkow, 1997).

In the mid-80s, more research began on the theory that aggressive people are more likely to be violent and abusive towards animals in comparison to people who are not aggressive (Arluke et al., 1999; Kellert & Felthous as cited in Arkow, 1997). Kellert and Felthous's results indicated that 25% of aggressive criminals had histories of animal cruelty in childhood whereas only 5.8% of nonaggressive criminals had histories of animal cruelty in childhood and 0% of noncriminals had histories of animal cruelty in which they abused animals more than five times (Arluke et al., 1999).

The American Psychiatric Association included in the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev., *DSM-III-R*; American Psychiatric Association, 1987), "cruelty to animals" as one of the symptoms of Conduct Disorder in children and adolescents (Unti, 2008). The animal cruelty symptom identified in the childhood diagnosis of Conduct Disorder (CD) may be significant when an adult is diagnosed with Antisocial Personality Disorder (ASPD). In order to meet the criteria for ASPD, an individual must have exhibited symptoms of CD prior to adulthood. Gullone (2012) suggested that the addition of cruelty to animals as a symptom of CD was, "… perhaps the single most influential factor spearheading a consistent flow of research examining the link," (p. 15). Indeed, since the inclusion of symptoms of animal cruelty, more research has been conducted on the association between animal cruelty and violence towards humans.

The Pittsburgh Youth Study (PYS) (Loeber, 2004) was a longitudinal investigation that examined risk factors for violence and homicide in young men in order to predict violence. Their sample consisted of three cohorts of inner-city boys who were followed as they matured from children into young adults (Loeber et al., 2003; Loeber & Farrington, 2001; Loeber, Farrington, Stouthamer-Loeber, & Van Kammen, 1998 as cited in Loeber et al., 2005). The results from Loeber and colleagues' empirical study, which utilized best practices in rigorous scientific research, suggested that physical aggression towards people and animals was associated with persistence in aggressive and antisocial behavior beginning in childhood and extending through the adult years (R. Loeber, personal communication, 2004 as cited in Randour & Gupta, 2013). Likewise, Hensley and Tallichet (2005) found that the younger the age at which a child first engages in animal cruelty the more likely they are to continue to engage in animal cruelty.

In summary, some studies have suggested that animal cruelty is most often perpetrated by youth and that engagement in animal cruelty declines as children mature (Alleyne, Tilston, Parfitt, & Butcher, 2015; Gullone, 2012) whereas other studies suggested an association between recurrent engagement in animal cruelty and age.

## Criminal History and Recidivism of Adult Animal Cruelty Offenders

In 1986 Tingle et al. conducted a study that reported a history of animal cruelty in 48% of convicted rapists and 30% of child molesters (Arkow, 1997). Arluke et al. (1999) examined the association between animal cruelty and violence as well as other antisocial behavior. Arluke et al. (1999) aimed to improve upon previous research composed primarily of self-reports of incarcerated individuals who volunteered for the study by utilizing official records from the Massachusetts Society for the Prevention of Cruelty to Animals (MSPCA) and the Massachusetts state criminal justice records system.

MSPCA records spanning 11 years were reviewed and compared to a matched control sample with similar addresses, age, gender and socioeconomic status. The objective was to conduct analyses comparing and testing the "deviance generalization hypothesis" versus the "graduation hypothesis." Results of the study suggested that in comparison to a control group, perpetrators of animal abuse were 3.2 times more likely to have a criminal record and 5.3 times more likely to have a record of at least one violent crime (Arluke et al., 1999). In other words, animal cruelty offenders had greater likelihood to engage in criminal acts with 70% of the perpetrators of animal cruelty committing other criminal offenses compared to 22% of the control group. Further, a chi square analysis was conducted, which supported the assertion that animal cruelty offenders are more likely to engage in criminal behavior than the matched control group ($X^2 = 68.24$, d$f = 1$, $p < 0.0001$).

Hoffer et al. (n.d.) examined criminal history and recidivism among animal cruelty offenders through an affective and predatory model of violence (Meloy, 2006; Woodworth & Porter, 2002). Hoffer et al. (n.d.) found that the most frequently committed animal cruelty acts by affective offenders included beating, kicking, strangling, and throwing as compared with the predatory offenders who most frequently engaged in throwing, beating, shooting, and stabbing in their animal cruelty acts. Over half of the offenders used instruments (knives, hammer, etc.) during the animal cruelty offense, 29% of the offenders used personal weapons (hands and feet) and 18% used both personal weapons and instruments. Affective Offenders most frequently used blunt force instruments (34%), sharp force instruments (29%), and shooting instruments (21%). Predatory Offenders used instruments in the majority of their cases (65.6%), with the most frequently used weapons being sharp force instruments (45%), shooting instruments (34%), blunt force instruments (29%) and asphyxiants (26%).

Seventy-four percent of offenders in the BAU study (Hoffer et al., n.d.) had been arrested for at least one offense. In addition, 60% of the offenders had a documented or undocumented history of violence against persons. Of the 29 types of crimes for which the offenders were arrested prior to the instant animal cruelty offense, the most frequently noted offenses were Property/Financial (140 arrests), Substance Use and/or Abuse (138 arrests), and Rule/Court Violations (120 arrests). In addition, there were 108 offenders arrested for Interpersonal Violence.

In terms of recidivism, almost half of the offenders (45%) were arrested in a separate criminal incident at some point after the instant offense. Of the 24 types of crimes for which the offenders were arrested following the instant animal cruelty offense, the most frequently noted offense was Interpersonal Violence ($n = 66$ cases), along with Rule/Court Violations ($n = 88$ cases), Substance Use and/or Abuse ($n = 55$ cases) and Property/Financial offenses ($n = 38$ cases). Interestingly, in 20 cases, arrests following the instant offense were for subsequent acts of animal cruelty. When examining Interpersonal Violence offenses, 60% of the offenders in the sample had a documented and/or undocumented history of violence against persons. The study provides additional support for obtaining a thorough and accurate criminal history of the animal cruelty offender.

## Case Example 2

After an altercation with his elderly mother, Roger put her dog into a plastic bag and placed it in the car where he held her at gunpoint and forced her to drive him to a specific location. He had his mother stop at a remote location near the woods where Roger dug two holes while proceeded to beat the dog with a hammer and stomp the dog into the second hole where the dog was eventually buried (potentially alive). Roger threatened his mother's life and told her at gunpoint that if she told anyone that he would "put her in the hole."

During this incident, Roger told his mother that he had also killed two of her other dogs and had buried them in her backyard after beating them. He also claimed to have killed a person and buried the individual. Roger subsequently strangled and beat his mother after a family dispute. Roger's mother contacted the police about the continual beatings and abuse she had endured.

## Interpersonal Violence (IPV): Predatory and Affective Violence and Domestic Violence Offender Typology

Literature on Intimate Partner Violence has indicated that domestic violence offenders may threaten and/or commit animal cruelty towards pets that belong to their partner(s) in order to control and/or to seek revenge against their partner(s). Ascione et al. (2007) found that the women in a domestic violence shelter were 11 times more likely to report prior animal cruelty incidents used by their partners to prevent them from leaving compared to the control group and that the severity of the domestic violence was a factor indicating animal cruelty. Another groundbreaking longitudinal study conducted over 7 years included a control group and randomized sample, which examined risk factors for individuals engaging in intimate partner violence (Walton-Moss, Manganello, Frye, & Campbell, 2005). The findings from this study indicated that threat or actual abuse of a pet by a former or current partner was one of five main risk factors

for becoming a batterer (Adjusted Odds Ratio 7.59; $p < 0.011$) (Walton-Moss et al., 2005). Although similar findings suggesting the relationship between pet abuse and intimate partner violence had been found in other studies (Flynn, 2000; Faver & Strand, 2003; Siegel et al., 2003, as cited in Walton-Moss et al., 2005), this study was the first known controlled study examining the association between pet abuse and intimate partner violence (Walton-Moss et al., 2005).

Intimate Partner Violence is influenced by attachment disorders that have initially affected the child and later the adult to react to perceived threats or rejection based on the relationship developed with his/her caregiver. Bowlby (1973) suggested that children become angry in response to a pervasive lack of support, safety and protection by their caregiver. Levinson and Fonagy (1998; 2004) reported that a sample of violent men experienced early childhood trauma and a dismissing attachment style. They also lack a sense of self as they learned to detach from feelings such as anger, hurt, pain, and shame due to their past parental abuse. As a result they can be self-serving and interpret unacceptable behavior as acceptable.

Ascione (1998) asserts that among batterers it is imperative to determine the prevalence of animal cruelty as well as the various forms of animal cruelty due to the fact that it may be related to the following issues: (1) A method utilized by batterers with the objective of controlling their partners; (2) Degree of batterers' lethality, and (3) Increased likelihood of mental health issues in children due to exposure to animal cruelty, which is often indicative of other forms of violence occurring within the home. Faver and Strand (2003) also emphasized how batterers control, manipulate and coerce victims of domestic violence (primarily females) by threatening and/or committing acts of abuse towards their pet. This sort of manipulation often results in the victim refusing to seek help and/or go to a shelter out of fear for the safety and welfare of their companion animal(s) (Faver & Strand, 2003). Ascione hypothesized that information about the domestic violence offender may be beneficial to mental health professionals who work with animal welfare and domestic violence issues, as well as other

professionals who serve clients facing these issues (Ascione, 1998).

Like other types of violence, IPV against intimate partners can be characterized as Affective or Predatory. In Hoffer et al. (n.d.), 60% of the offenders were arrested for IPV prior to the instant animal cruelty offense, at the time of the instant offense (co-occurring at the time of the instant offense of animal cruelty) and/or after the instant animal cruelty offense. In addition, 29.7% ($n = 77$) of the animal cruelty offenders in Hoffer and colleagues' study ((n.d.)) had documented or undocumented reports of domestic violence, child abuse, elder abuse and/or other interpersonal offenses, such as threats and/or stalking behavior.

## Case Example 3

Three subjects tortured and killed approximately 24 cats over a 26 night timeframe. The subjects would go out at night and catch cats and confine them in locations until one subject's wife would go to work. After the subject's wife went to work the subjects would torture and kill the cats by burning, stabbing, beating, hanging and various other methods.

When interviewed by law enforcement, one subject stated that he and another subject, "were losing interest in killing cats because it was becoming too easy and not as exciting." He stated that they, "were talking about sexually assaulting a woman next." One subject reported that torturing the cats, especially if they put up a fight sexually aroused him. The investigator reported that he had not seen anything like this case before or since, and that he believed that if the subjects had not been arrested for animal cruelty that, "women would have been kidnapped, raped and killed."

## Relationship Between the Offender and Animal Victim

Factors, such as offender's access to and control over an animal victim and the offender's relationship to the animal victim, may contribute to the animal cruelty act. There have been extensive studies regarding how relationships between offenders and human victims impact the violence and aggression. In addition to the human victim being more available to offenders with whom they have a relationship, the intimacy may intensify the interaction and elicit aggressive reactions to emotional arousal such as fear of loss, anger and anxiety. Early attachment/bonding issues and empathy deficits may also impact interpersonal relations and contribute to the animal cruelty violence (Ainsworth & Bowlby, 1991; Bowlby, 1969/1982; Magid, 2008; Marvin & Britner, 1999).

Struggling to resolve early experiences of loss, abuse, and/or trauma can affect the child's ability to securely attach to his/her caregiver, which could result in deficits of personality and/or dysfunctional relationships with, friends, intimate partners, coworkers, and pets or other animals (Pascuzzo, Moss, and Cyr, 2015). Individuals who exhibit insecure attachment often experience conflict in their adult relationships and a decreased ability to develop empathy for others. They often have negative views of self and others, which is distorted and difficult to change. When insecure individuals experience difficult or painful events and feelings, such as anger and sadness, they interpret the events more negatively, which can intensify the negative thoughts and feelings (Ainsworth & Bowlby, 1991; Bartholomew & Shaver, 1998). With limited research examining the relationship between attachment and psychopathology, Dozier, Stovall-McClough, and Albus (2008) noted two studies from the Minnesota parent–child project's longitudinal study (Carlson, 1998; Warren, Huston, Egeland, & Sroufe, 1997 as cited in Dozier et al., 2008). They examined how experiences that impact attachment, such as trauma and separation, might be related to the development of psychopathology. When something or someone threatens one's sense of safety, or sense of self, they may hyperactivate or deactivate their attachment system, resulting in anxiety or avoidance as a coping mechanism. An Insecure attachment may leave them vulnerable to developing psychopathological disorders depending upon biological precursors, developmental and environmental factors. With the connection between "attachment states of mind" and psychopatho-

logical disorders, insecure attachment may be considered a risk factor for the development of affective schizophrenia and personality disorders, such as Borderline and Antisocial Personality Disorders (Dozier et al., 2008). Even 10-years-later adolescents who formed insecure attachments with their caregivers exhibited greater psychopathological symptoms (Pascuzzo et al., 2015).

The relationship between the animal cruelty offender and the animal victim often includes an animal: owned by offender; owned by an intimate partner, owned by family or friends; or owned by neighbors or other relationship. Hoffer et al. (n.d.) found that 63% of the offenders had a relationship with the animal victim and 37% had no relationship. Of those with a relationship, almost half of the animal victims were owned by the offender and an additional 29% of the animal victims were pets of current or prior intimate partners. Among affective offenders, 86% had a relationship with the animal victim and 48% of the Predatory offenders had a relationship with the animal victim.

## Family Patterns

### Impact of Witnessing Animal Cruelty

The development of aggressive behavior is highly impacted by the experience of witnessing aggression (Cummings, 1987; Davies et al., 1999; Margolin & Gordis, 2000; Maughan & Cicchetti, 2002 as cited in Gullone, 2012). Vicarious learning is a theory emphasizing the importance of observing behavior on the learning of performing the behavior (Bandura, 1977). Thompson and Gullone (2006) examined the impact of witnessing animal cruelty in a population of 281 adolescents composed of 168 females and 113 males who were 12–18 years of age. They reported that, "Participants who observed either a friend, relative, parent, or sibling abuse an animal reported significantly higher levels of animal cruelty in comparison to those who reported never having witnessed individuals belonging to these categories," (p. 232). Gullone and Robertson (2008)

examined the pathways for animal cruelty and other aggressive behaviors and found that witnessing animal cruelty is a "pathway for the development of different aggressive behaviors" (Gullone, 2012, p. 118).

Gullone (2012) reviewed multiple studies examining the association between family violence and animal cruelty and summarized that, "between 29% and 75% of children in violent families have witnessed animal cruelty" (p. 117). Gullone (2012) further discussed how results from other studies suggest increased likelihood of engagement in animal cruelty by children exposed to family violence in comparison to children who are not exposed to family violence (Baldry, 2003: Becker, Stuewig, Herrera, & McCloskey, 2004; Flynn, 2000; Hensley & Tallichet, 2005 as cited in Gullone, 2012, p. 117). DeGue and DiLillo's (2009) found that children who witnessed animal cruelty were 8.14 times more likely to become perpetrators (Gullone, 2012; Phillips, 2013). Ascione also contends that the experience of witnessing animal cruelty impacts the development of a child significantly. He states that witnessing animal cruelty, "can begin to erode a child's emotional and moral development" (p. 623). It is also argued that a child's empathic development is significantly altered through observation of aggression such as animal cruelty.

Bandura (1977) also demonstrated that individuals are more likely to learn a behavior when they observe someone with whom they have a relationship model the behavior, such as animal cruelty. Thompson and Gullone (2008) found that witnessing animal cruelty perpetrated by a parent, sibling, or relative predicted higher levels of cruelty than if the individual modeling the behavior was a stranger.

Similar to Thompson's and Gullone (2006) and Gullone and Robertson's (2008) results, Hensley and Tallichet (2005) and Hensley, Tallichet, and Dutkiewicz (2012), in their studies of incarcerated males, found that witnessing a significant model (such as a friend or family member) engage in animal cruelty led to an increased likelihood of committing animal cruelty acts. These findings suggest that animal cruelty is

a learned behavior at least to some extent, and that witnessing of animal cruelty by significant models likely leads to desensitization for violence and decreased capacity for empathy (Hensley et al., 2012).

## Assessment, Diagnosis, and Treatment

Research and theories of violence are numerous and have a long history. Most theories incorporate factors such as, individual/psychological, social/environmental, and biological components of violence, as indicated in Meloy's Biopsychosocial Model of Violence. Many assessment tools incorporate these violence indicators to assist mental health professionals with assessing individuals for risk for future violence.[3] In order to best utilize these assessment tools, and to evaluate the indicators used to assess how an individual compares to other similar offenders, it is important that a thorough investigation and assessment be completed. Obtaining, reviewing, and integrating background information from a variety of sources is important in these cases in order to ascertain the scope of the violence and aggression that may have been perpetrated by the animal cruelty offender.

Any previously diagnosed psychiatric disorder or lack of prior mental health problems are important to document. As discussed previously, information regarding individuals with severe mental illness, and those who are gravely impaired due to the use of alcohol and other substances, could assist in providing clarity to assess if the violent act was predatory or affective in nature. This is relevant given that some literature indicates that predatory offenders may have

greater violence severity and more victims. In addition, an offender's mental health problems could impact the investigation including the offender interview, prosecution, competency proceedings, and factors that could potentially mitigate or enhance sentencing.

A comprehensive evaluation of the animal cruelty offender will also provide the legal and mental health community with information regarding an offender's prognosis and amenability to treatment. Specific treatment modalities for animal cruelty offenders are limited. Additional treatment needs to be developed to address violence indicators as empathy treatment is not sufficient.

To date, the best known treatment is Anicare developed by experts in the field such as Drs. Mary Lou Randour, Maya Gupta, Kenneth Shapiro and Antonia J.Z. Henderson along with various other mental health professionals (https://www.animalsandsociety.org/helping-animals-and-people/anicare-child/ and https://www.animalsandsociety.org/helping-animals-and-people/anicare/anicare-adult-handbook/). Anicare is an approach focused on identification, assessment, and treatment of animal cruelty offenders. Specialized treatment handbooks were developed specifically for different ages of offenders with an Anicare Handbook tailored for use with adults as well as an Anicare Handbook created for children. The treatment approach employs cognitive behavioral therapy, attachment, psychodynamic, and trauma-based interventions.

The assessment of animal cruelty offenders can provide additional dynamics that could be addressed. For example, animal cruelty offenders who meet the criteria for Conduct Disorder as a child, and/or who as an adult meets the criteria for Antisocial Personality Disorder, or exhibits other personality disordered traits, could be treated for the characterological traits. In addition, offenders who may be dually diagnosed with substance use and/or abuse could benefit from drug treatment. Treatment approaches have been developed for individuals who are violent and/or aggressive towards others. Given the literature showing that animal cruelty offenders have incorporated other antisocial behaviors,

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[3]A number of violence risk assessment tools have been developed and used in clinical, forensic and research settings such as The MacArthur Violence Risk Assessment (Monahan et al., 2005), The Violence Risk Appraisal Guide—Revised (VRAG-R; Harris, Rice, Quinsey, & Cormier, 2015), the HCR-20-Version 3 (HCR-20-V3; Douglas, Hart, Belfrage, Guy, & Wilson, 2014), and the Violence Prediction Scheme (Webster, Harris, Rice, Cormier, & Quinsey, 1994).

treatment modalities developed for individuals who evidence antisocial behaviors may be as effective when applied to this population. Therefore, a one-size-fits-all treatment modality for animal cruelty offenders providing empathy treatment and anger management may not be sufficient for every offender. Offenders who indicate predatory versus affective violence may have different motivations, and additionally may be assessed as having different traits, indicating personality disorders or other mental illness influencing the offenders' violent behaviors.

In addition to assisting the investigation and prosecution, the motivation of the animal cruelty offender may also provide valuable information during the assessment of the offender. Kellert and Felthous's (1985) study resulted in a preliminary classification of motivations for animal cruelty, including controlling an animal, retaliating against an animal, and retaliating against another person among other motivations (Arkow, 1997). Obtaining information about the motivation of the animal cruelty offender from the crime, crime scene, the offender's stated motivation, and the motivation based on witness or owner victim statements, may all contribute to: (1) a more accurate picture of an offender's motivation to commit the violence against the animal victim(s), (2) determining what needs were met as a result of the animal cruelty act(s), and (3) if the motivation could be an indicator of the offender's future potential to act out aggressively or violently against humans. In terms of motivation of the offenders in the study by Hoffer et al. (n.d.), the responses were reported in a multiple response variable with the top three being Displaced/retaliate against an animal, Punishment for unwanted behavior of animal, and the Animal was unwanted.

## Multidisciplinary Considerations

Obtaining a 360° perspective of an offender may provide a more comprehensive understanding of the offender and how he/she may present in different contexts (e.g., childhood, employment, relationships with friends, family, significant others).

Other areas to consider include social/environmental, psychological/mental/cognitive/emotional, and biological/physiological/neurological. Professionals from the varying disciplines who may be involved in animal cruelty and other violence against persons (i.e., law enforcement, veterinarians, legal and mental health professionals) may obtain different information about the offender, which can provide different perspectives of the offender and his/her propensity for violence.

## Law Enforcement and Prosecution Considerations

Most law enforcement officers have experience in investigating interpersonal violence such as assault, domestic violence, and child abuse. Applying similar investigative techniques from crimes such as these can improve investigations of animal cruelty offenses. Hoffer et al. (n.d.) found that most incidents of animal cruelty came to the attention of law enforcement and/or animal control through the reports of witnesses or owners of the animal victims. Similar to other crimes a thorough investigation is important to subsequent to the prosecution and legal outcome. There has been much progress in the legal system regarding the recognition of animal cruelty as a valid criminal charge from misdemeanor to felony. With all of the states currently charging animal cruelty as a felony, the criminal investigations have likely become more involved in order to meet the legal criteria of the felony charge.

Even in cases where the offender is not arrested or charged, information about any prior law enforcement calls to the residence, to include the frequency, type and circumstances of previous law enforcement contact with the offender (e.g., as offenders, victims, witnesses), can be useful in providing prior family violence risk indicators. Information about who the offender lives with, is in a relationship with, or an offender's stressors, including domestic conflicts, can indicate who may be at risk of being a victim and/or if or humans have similar reactive or instrumental elements as the current violent act.

Since there is significant support for the connection between animal cruelty and violence

against persons, conducting a thorough investigation into every case of interpersonal violence (IPV) and/or animal cruelty could provide important information regarding the offender's past violence and aggression and future potential for violence. Investigations of animal cruelty should incorporate searching for evidence of IPV and investigations into IPV should include the possibility of animal cruelty, especially if an offender has access to an animal through his/her living situation or relationship with the animal victims' owner. This comprehensive approach will provide a more accurate, and thorough picture of the offender and could strengthen the prosecution of the case.

Investigators should look for similarities between prior offenses and the current incident such as what provoked the incident, type of instrument/personal weapon the offender used, choice of victim, degree of violence, extent of the victims' injuries, location of incident, victim type, offender motivation, and claims. In addition, knowing the relationship that the offender had with the animal victim can provide additional information regarding the motivation and potential violence and aggression towards other humans and/or animals. If the offender committed multiple offenses against humans and animal victims, this pattern of behavior can be helpful in assessing if the past acts of violence against animals and/or humans have similar reactive or instrumental elements as the current violence act.

Investigators should integrate their observations, collateral interviews, and information obtained from database checks, such as criminal history, and records into the interview with the offender. Given the support for the link, if children are present in the home a thorough evaluation for potential child abuse should be conducted. Working together with Animal Control and Child Protective Services is vital to confirm that the investigation has accurately uncovered all potential violence and aggressive acts by the offender to assist in also assessing potential future risk. In addition, the literature regarding the impact of observing animal cruelty offenses on children should be considered.

Other sources of information include observations by law enforcement at the primary crime scene as well as the offender's residence. His home contains indicators about how he lives, his values and priorities, and the types of relationships he has with others. It also can reveal aspects of his personality, such as his level of responsibility, creativity, how open he is to new ideas, his ability to cope with stressors, and how he gets along with others.

During the course of the investigation, law enforcement often has the opportunity to obtain a wealth of information about the offender from a variety of sources (e.g., family members, current and past spouses/intimate partners, friends, classmates, coworkers, and employers). Collateral interviews can be useful in obtaining information about the relationship dynamics between the offender, his/her spouse/significant other, and children and pets residing with the offender. An interviewer should be prepared for, and understand, the potential for denial and minimization among the offender's associates, particularly those closest to him/her, when asking questions related to the incident itself. Through documentation and interviews with the offender, family members, friends, coworkers, and witnesses, investigators can obtain information about the offender's state of mind and other psychiatric and mental health issues.

## Offender Interview Considerations

How an individual responds to questions related to the incident can provide investigators and evaluators with important information about the motivations for the animal cruelty offense and how the offender felt during the act. Specifically, the interviewer should review the details about the animal cruelty act, videos, and photos and initial statements of family members, friends, coworkers, first responders, and veterinarians. If the offender has been initially interviewed by law enforcement, the interviewer should review the offender's statements for potential motivations. This information can provide assistance in understanding the underlying reason for the animal cruelty incident(s) and the potential for any other displaced aggressive acts.

Due to the potential connection between violence against animals and humans, obtaining a comprehensive understanding of an offender's full potential for violence can provide vital information during the investigation, prosecution, assessment, and treatment of an offender. Offenders who have complete access to a victim, with little to no risk of disclosure due to the vulnerability or inability of the victim to disclose, may provide the offender with the extended time, access, and opportunity to fully perpetrate the level and degree of violence he chooses. Therefore, understanding the type, frequency, and extent of severity of the violence against all victims (human and/or animal) may provide a more accurate picture of what violence the offender wants to perpetrate in addition to other characteristics of the offender.

Since personality factors greatly impact how a person regulates positive and negative emotions, handles external stressors, functions in areas of work, social and intimate relationships, resolves conflicts and makes decisions, it is important for the law enforcement interviewers to understand the offender. It will assist them in knowing how to best make the initial approach with the offenders to increase the chance that they will cooperate and talk with them. Further, the rapport building stage will be more effective if the interviewers understand what rapport would mean to them given their personality, which can impact theme development.

In order to prevent detection and to protect one-self from experiencing feelings of anxiety or self-loathing, cognitive distortions are frequently used by offenders during the interview and interrogation by law enforcement. Offenders may completely deny they are responsible for the incident, may project blame onto others for their actions, may use numerous excuses, such as "I had to shoot the dog when he growled at me" to rationalize their behavior they may minimize the act as not being significant or that the animal's suffering did not matter.

During the interview, the interviewer may hear specific themes that the offender used to describe other experiences in his/her life. Understanding the most frequently used cognitive distortions the offender uses can provide law enforcement insight into the cognitive distortion in which the offender is most likely to respond. Due to society's conflicted reactions to animal cruelty acts, utilizing cognitive distortions to minimize, rationalize, and project blame onto the animal victim assists in indicating that the interviewer will not judge the offender for providing an accurate depiction of what transpired.

## Affective Versus Predatory Offender Interview Considerations

Affective and predatory violence have distinct criteria differentiating each aspect of the violence continuum. The unique aspects could assist law enforcement to develop more effective themes during the interview and interrogation of animal cruelty offenders. An offender's statements can provide important indicators if the offender was acting out of emotional arousal or a more planned, cognitive attack, and may provide important behavioral and personality characteristics of the offender.

*Affective Offenders*. Due to the spontaneous or impulsive aspect of affective violence, interviewers might utilize cognitive distortions, minimizing the offender's actions as being a reaction to feelings of anger and fear. In addition, affective offenders who have impulsivity deficits may feel that they were unable to control their feelings of anger. For example, an offender who thought his girlfriend might leave him described his feelings as "seeing red" in reaction to the perceived threat of loss. As a reaction, he took his girlfriend's Pomeranian and burned the dog's feet. Although he did not "plan" to burn his girlfriend's dog, he was so angry at the moment that she paid more attention to the dog than to him. The interviewer could use minimization to reinforce that the offender most likely did not think through his actions rationally and that his true motivation was not to hurt the dog. He only wanted his girlfriend to understand how angry he felt and to provide him with the attention he wanted.

*Predatory Offenders*. Alternately, the interview themes for predatory offenders would focus less

on the emotional arousal or impulsivity, but may be rationally based. Since predatory offenders act out in a more instrumental, goal-oriented manner, they may not respond to themes related to emotional expression. They may be more responsive to cognitive distortions that project blame onto the victim or rationalization of the act. For example, an offender who hates cats (and was caught killing any cat that came into his neighborhood by shooting the cat) stated the following after he was caught: "Who cares about cats. All they do is spray everything and have more cats. I can't stand them. If they come in my yard … well, that's too bad for them." The motivation for killing the cats was to achieve his goal that they would not come into his yard. He did not feel any remorse or shame in killing them and was able to rationalize the fact that he was justified in killing them. This type of offender may not experience the same need to defend himself against feelings of self-loathing as he may not feel the same degree of shame, embarrassment, or anxiety as an affective offender.

## Mental Health Considerations

The field of mental health has been analyzing the complex factors that have been identified to help predict violent behavior. Some have argued that the currently utilized assessment tools are sufficient to obtain a complete and accurate picture of an individual's propensity for violence. Others advocate that specific assessment tools should be developed to incorporate animal cruelty and its' significance more accurately. It is beyond the scope of this chapter to discuss the assessment tools in detail, or to evaluate the most effective instruments to predict the likelihood that an animal cruelty offender would later perpetrate violence or aggression on another person. What should be emphasized is the importance that a thorough assessment of the offender be conducted to increase awareness by the mental health field of the full scope of the offender's potential for violence against adult men and women, children, and animals. The specifics of the animal cruelty incident should be taken into consideration along with any behavior indicating violence

and/or aggression, such as an offender's ability, willingness, and desire to act out violently.

In the example mentioned at the beginning of the chapter, David, who was arrested for killing a young woman, a mental health that evaluated the other incidents of violence and aggression, i.e., his killing and eviscerating feral cats and later bragging about it to his friends, could be extremely relevant to the overall picture of the offender. Conducting assessments of animal cruelty offenders requires an understanding of offender behavior from a broad perspective, incorporating all violence and aggression behaviors obtained from all investigative documents and interviews conducted during the animal cruelty investigation.

In addition, information collected from collateral interviews regarding the offender's violence risk indicators could provide a more accurate picture of the offender and his propensity for violence. Working with law enforcement, animal control, and prosecution will provide a positive multidisciplinary experience that will result in a more effective evaluation for court and treatment purposes.

Training for mental health regarding animal cruelty and the literature identifying risk factors for animal cruelty can be made available to mental health, so they will have a greater understanding about the dynamics, such as how offenders may threaten or abuse animals to exert control over an intimate partner, or how offenders may displace their aggression from the significant other onto the family pet.

## Summary

It is reasonable to presume that information about prior violence could support the argument that an individual is at risk for future violence (i.e., the best way to predict future behavior is past behavior). Although the link between animal cruelty and interpersonal violence has been supported through the literature, generalizing to individual offenders may not effectively take into account the vast array of variables that could impact an

individual's propensity to act out violently. Placing the animal cruelty act within a context of other antisocial behaviors could provide additional insights into the offender's violence potential. Therefore, it is prudent that practitioners not rely solely on the animal cruelty offense to determine, with certainty, that the offender has or will perpetrate violence against humans. Rather, it is of paramount importance that investigators and other professionals take into account all factors including, but not limited to engagement, in animal cruelty in order to obtain a thorough understanding of the offender and in so doing their potential risk to society.

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# Child and Adolescent Firesetting

David J. Kolko and Joanna E. Foster

## Description of the Problem

Firesetting by children and adolescents is a common, costly, and complex problem across the USA and around the world. Although it may not reflect the most prevalent problem behavior carried out by this population — and it is important to remember that not all intentional fires set by children are motivated by, or treated as, a desire to carry out a violent crime — few acts cause as many potentially serious individual, familial and societal consequences as juvenile firesetting. At the most extreme, these consequences may include death and physical injury but even the less serious outcomes of damage to property are often accompanied by human suffering, family disruption and community degradation.

Between 2007 and 2011, an average of 49,300 fires in which fire involving play was a contributing factor were reported to US municipal fire departments each year. Fires resulting from play caused

annual averages of 80 deaths, 860 injuries, and $235 million in property damage. Fires in properties accounted for 23% of these fires but 98% of the deaths, 93% of the injuries and 91% of the property damage. Children were responsible for the vast majority of these incidents (Campbell, 2014a, 2014b).

Over the same period, an estimated 282,600 intentional fires were reported to US fire departments per year, with associated annual losses of 420 deaths, 1360 injuries and $1.3 billion in direct property damage. According to the FBI's *Crime in the United States*, two out of five of the individuals arrested for arson were under 18 years of age (Campbell, 2014a, 2014b).

This data provides not only an insight into the scale of the potential devastation of this behavior, but also an early introduction to a recurring headache for researchers and practitioners working in the field of juvenile firesetting; defining the behavior and the scope of the problem. Already we have seen descriptions of "fire involving play," "intentional fires," and "arson." Added to these descriptions of firesetting can be "match-player," "firebug," "firesetter," "deliberate firesetter," and even "pyromaniac" (despite the diagnosis of pyromania being incredibly rare in adults, and even rarer in children, due to its exclusion criterion that include motivations of anger, vengeance, or other mental health diagnoses such as Conduct Disorder). Depending upon the paper you are reading or the clinician you are working

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with, the typologies can appear endless and even somewhat unhelpful in attempting to correctly identify the behavior and effectively address it.

The existence of varying typologies is evidence of wide-scale efforts by a number of practitioners over many decades to understand, evaluate, treat, and prevent child and adolescent firesetting. Yet the volume of contributions by practitioners and researchers from various disciplines across the world, and the subsequent rich experience base that has developed far exceeds the availability of new scientific studies and clinical reports in this area. Paradoxically, a scientific barrier to studying and intervening with the problem is the very variability that exists in the description and definition of childhood firesetting or firestarting (Kolko, 2002a). Although a standard definition does not exist, there is still a need to explain any criteria used (e.g., nature and severity of a child's involvement with fire) to select cases for study or treatment. Clearly, how we classify cases varying in level of fire involvement may affect a study's outcomes. The variability that exists in subject samples on this one factor alone suggests that caution is needed when evaluating research in the area and also when attempting to even describe the problem.

With these cautions thus noted, for this chapter the term firesetting will be used to reflect a child's actual commission of a fire (as opposed to simply liking fire), unless otherwise noted.

## Historical Background

Hardesty and Gayton, in their 2002 paper *The Problem of Children and Fire: An Historical Perspective,* spoke about fire as both revered and feared in society. On the one hand fire is essential to our human survival yet simultaneously deadly and dangerous; an ambivalence that would appear to play a central role in explaining the "dangerous and deadly mix of children and fire." Every society has to find ways to teach children the safe use of fire yet during these formative years children are exposed to provocative, positive and appealing images of fire through the media. In the intervening years since the paper was written, the rise

of social media has allowed for the proliferation of these evocative and powerful messages. A single search during October 2015 of "child playing with fire" on social media site "YouTube," which describes itself as a forum for people to connect, inform, and inspire others across the globe, yielded 257,000 results. One such posting had the accompanying text "Young pyromaniac messes up. Hilarious!" and featured a teenage boy setting alight papers with a lighter, using accelerants when the fire failed to develop. The video had received 16,610 viewings and once finished, viewers are automatically connected to a different video entitled "How to hold fire in your hand." The internet age now means a teenager's risk-taking behavior is no longer confined to being popular among their immediate peer group, but can lead to thousands of "likes" from anonymous strangers as their antisocial behavior is "followed" and unchallenged by admirers across the globe.

This equal measure of the appeal and fear of fire appears to have changed little since Greek mythology, which tells us Prometheus stole fire from the gods to benefit humans and when caught his punishment was to spend eternity chained to a mountainside, with vultures picking at his liver. (And for those who benefitted for the crime Prometheus committed? For every safe and beneficial use of fire, humans would be visited with the destructive force of an uncontrolled fire). While our ambivalent relationship with fire continues, there has been a significant shift in explaining its causes. With firesetting no longer seen as a mixed blessing from the gods, thinking has also shifted from the psychodynamic models where firesetting has a sexual root (Simmel, 1949; Stekel, 1924) to theories involving development, family characteristics, peers, social learning variables, and externalizing pathology (Heath, Hardesty, Goldfine, & Walker, 1983; Kolko, 2002a, 2002b; Kolko & Kazdin, 1986).

Another significant change in the history of firesetting causes and treatment has been the shift from agencies working independently to agency co-operation and integration. As recently as the 1980s, few children's services co-operated with fire departments in the treatment of juvenile fire-

setting and far fewer fire departments recognized juvenile firesetting as a problem they intervened in, beyond putting out the fires started. Although fire services continue to take primary responsibility for intervening with juvenile firesetters through the delivery of fire safety education (Mackay, Ruttle, & Ward, 2012), several communities in the USA (Barreto, Boekamp, Armstrong, & Gillen, 2004), Canada (Henderson, MacKay, & Peterson-Badali, 2006), Australia (Adler, Nunn, Northam, Lebnan, & Ross, 1994), and New Zealand (Lambie, McCardle, & Coleman, 2002) have implemented models of care that partner mental health and fire service professionals, with a small number of UK fire and rescue services also starting to enter into the first, pilot stages of formally agreed multi-agency working between fire services and mental health. One example from England is the Service Level Agreement that now exists between Nottinghamshire Fire and Rescue Service and the Psychology Department at the University of Nottingham, where joint collaboration and shared protocols are followed when juvenile firesetter referrals are received. In today's child-focused and family systemic climate, to not address the problem of child and adolescent firesetting in a multi-agency framework when required could be considered negligent on the part of the professionals involved.

Another welcome step forward when reviewing historical approaches to addressing juvenile firesetting behavior is the growing body of robust evidence surrounding the lack of efficacy when using shock tactics to stop the behavior. Despite often being hugely popular with governments, organizations, professionals, and despairing parents, the millions of dollars invested into programs such as "Scared Straight" have evidenced an overall adverse impact. To put it bluntly, such approaches have made the problem worse.

First introduced in the 1970s as a "hard-hitting" way to prevent juvenile delinquency, Scared Straight programs became popular before being thoroughly evaluated. Three subsequent decades of research show that programs premised on Scared Straight approaches are ineffective, counterproductive, and costly, not only failing to deter crime but have shown to result in increased juvenile offending when compared with no intervention (Petrosino, Turpin-Petrosino, & Buehler, 2003; Schembri, 2006). Yet, despite the evidence of what works in changing offending behavior, less-researched outcomes in addressing firesetting behavior still exist in current practice. In August 2015, the activities of Naselle Youth Camp in Washington were suspended after a teenager shot himself. New York journalist Caty Enders reported in the Guardian newspaper how the 16-year-old boy had escaped the camp the previous day and during an attempt to apprehend him, fired a shot to his own head. Although the teenager survived, the program that deploys young inmates to fight wildfires was put on hold.

Naselle Youth Camp, which houses 76 boys, deploys two fire crews throughout the year. Since the 1960s, camps like this one have supplied the Department of Natural Resources (DNR) with inexpensive labor for fire suppression. While the boys working these fire crews are reported not be in the midst of heavy flames, they receive orders from a DNR fire crew, assist with digging trenches, apply pails of water to put out hot spots and support frontline firefighters. They begin their 16-hour days at around 4 am or 5 am, receive a lunch break, and then continue work until the early evening. During a 14-day rotation, the young people on fire prevention work receive between $0.70 and $1.60 per day.

Commenting on the story, David Ball, a criminal justice lawyer and corrections expert at California's Santa Clara University, said he was surprised to learn of fire camps for inmates under the age of 18. "The word about scared-straight boot camps for juveniles is that they don't do any good," said Ball. "For most juvenile programs, there are lots of other things for these kids to do, like get their GED and go to counseling. This is really something that I have not heard of." Ball said it was important for each state to assess whether such programs were rehabilitating inmates, not least when the inmates were minors. "It might be a great idea for these kids going out on these fire crews," said Ball. "But I'd like to know, what evidence do you have that that's true? We don't typically let children do this type of work."

As agencies continue to battle with implementing approaches proven to work as opposed to those that seem like a "great idea," perhaps the one constant in the history of attempting to understand and address juvenile firesetting has been the relevance of considering the behavior in the context of child development. For an adult, interest in an object and involvement with it are often two very different things. Yet, for most children, playing with something is the primary means for expressing their interest in it. The established principles of child development allow us to identify interest in fire from pre-school years through to older adolescence. At each stage of development, the phenomena and "magic" of fire have the potential to attract and hold both the child's and teenager's interest. Quite simply, fire is fascinating and great care must be taken by parents and professionals alike not to pathologize, nor demonize, the children and adolescents' who have expressed this fascination through their actions.

Yet it is equally important to understand potential links between historical firesetting in childhood and adolescence and adult firesetting, recognizing life span trajectories where these can be established. In 2012 the Multi-Trajectory of Adult Firesetting (M-TAFF) was first published by Gannon et al. (2012). The M-TAFF integrates current firesetter theory, typology and research knowledge into a comprehensive etiological theory of firesetting, along with its maintenance and desistance. Within it, five firesetting trajectories are identified that include reference to an individual's caregiver environment (developmental factors), their earliest learning experiences of the form and functions of fire (social learning factors) and the further early influences of attitudes that may well feed into a preference to use fire as a retaliatory tool (cultural factors). This latest theory is important to be aware of, and the expectation should be that in time the M-TAFF will generate significant research activity and associated clinical applications. As we learn more about its application and use in the adult firesetter world, it may help further work with juveniles, both in adolescent practice and improving our understanding of the significance of early years' experiences on firesetting in adulthood.

## Epidemiology

Although firesetting by children and adolescents is relatively common, little is known about its epidemiology. Few studies have examined the prevalence or correlates of firesetting in representative community samples (Kolko, 2002a, 2002b; Putnam & Kirkpatrick, 2005; Sharp, Blaakman, Cole, & Cole, 2005). Rather, the scope of the problem has been understood largely by the number of fires reported to the fire department. For those studies based on self-report surveys or structured assessment interviews with juvenile firesetters, the majority have been carried out among clinically referred children.

Among the few community studies that have taken place (Grolnick, Cole, Laurentis, & Schwartzman, 1990; Terjestam & Ryden, 1996), older children had the highest rates of fireplay and, among the variables examined, exposure to fire materials was found to be related to the child's level of involvement with fire. In terms of clinically referred children, rates of recurrent firesetting are evidenced (Kolko & Kazdin, 1988; Stewart & Culver, 1982), conveying heightened involvement with fire. However, it was acknowledged that newer studies were needed that: (a) examine different forms of fire involvement and (b) incorporate samples with community cases, older samples and high-risk cases (Kolko, 2002a, 2002b).

A 2009 study by MacKay, Paglia-Boak, Henderson, Marton, and Adlaf moves towards addressing this gap by studying the mental health and substance use correlates in an epidemiological sample of community adolescents. The *Epidemiology of Firesetting in Adolescents: Mental Health and Substance Use Correlates* surveyed a total of 3965 students from urban and rural communities across Ontario, ranging in age from 11 to 19 years (grades 7–12), of whom 52% were male. Self-report questionnaires were administered on a classroom basis by research staff, with written consent obtained from students and parents after a full explanation of the study. The youth were classified into four firesetting levels based on age of onset of their fire involvement and frequency of their current firesetting.

Fire involvement was more prevalent among males than females at all frequency levels, a bias identified in previous state and national reports on arson (Fineman, 1980) and previous studies of community youth (Chen, Arria, & Anthony, 2003; Martin, Bergen, Richardson, Roegar, & Allinson, 2004). More specifically, the 2009 study revealed that while a majority (61.5%) of girls reported some lifetime fire involvement, few (8.5%) reported being involved in more than one or two episodes during the past year. These findings indicate that it is the escalation of firesetting to beyond one or two episodes that occurs infrequently in girls. As such, given that many girls have some firesetting during their lifetime, understanding why they desist—and frequent, persistent firesetting is predominantly a behavior of males—is an important issue for future research.

As its focus, the study hypothesized the links between firesetting during adolescence to psychopathology and substance use. The paper highlighted that youths with early onset and more frequent firesetting had higher rates of other problem behaviors and risk factors than youths with less severe firesetting. Smoking, binge-drinking, cannabis use, sensation-seeking and psychological distress were highlighted as sizeable differences between non-firesetters and "desisters" (those who had previously set fires but not done so in the last 12 months). As to the high frequency firesetting group (those who has set 12+ fires in the last 12 months), these were more likely than non-firesetters to report low parental monitoring, high sensation-seeking, delinquent acts, binge-drinking, frequent cannabis use, use of illicit drugs, elevated psychological distress, and suicidal intent. Furthermore, the number of risk factors increased incrementally according to firesetting severity. Across the firesetting groups, the percentage of youth who set a fire during the past year was 12.6% for those with no risk factors, 26% for those with one risk factor, 34.9% among those with two risk factors, and 53.2% for youth with three or more risk factors.

In summary, the study provided evidence that firesetting is associated with some psychopathology during adolescence and that fire involvement was associated with substance use. Perhaps the latter finding is less surprising, given that substance use is known to compromise self-control and result in increased risk-taking and antisocial behavior (Glantz & Leshner, 2000). In addition, substance use often requires the use of ignition materials and it is therefore reasonable to expect that these in the hands of substance-impaired youth may account for some of the high levels of firesetting reported in the present study. Therefore, while the specific relationship between substance use and firesetting remains in need of further investigation, it is likely that assessing and treating the substance use problems of juvenile firesetters should have both direct and indirect effects on their concurrent fire involvement. Similarly, the correlation between daily smoking and firesetting is also noted as of interest in the study. As with substance misuse considerations, the very fact of immediate access to ignition sources by teenage smokers may put them at higher risk for engaging in inappropriate fire involvement. Accordingly, reducing adolescent smoking may impact their firesetting and could therefore be considered an appropriate component of firesetting intervention programs (MacKay et al., 2004).

The 2009 study concludes that the mounting evidence on the vulnerabilities of children and adolescents with firesetting, and the substantial social and economic burden associated with juvenile firesetting, means improving access to clinical services is prudent. In addition, further research is warranted to understand the multidetermined nature and development of child and adolescent firesetting, allowing for greater knowledge and understanding when considering the epidemiology of the problem.

## Characteristics of the Offender

As with other externalising antisocial behaviors, boys are consistently shown to be more likely to exhibit firesetting behavior, with a prevalence of around 2–3 times that of girls across a range of community samples (Chen et al., 2003; Dadds & Fraser, 2006; Del Bove, Caprara, Pastorelli, & Paciello, 2008; Martin et al., 2004). As a result of

the small number of female youth who engage in firesetting, research has largely neglected to address this group and the possibility of differences — including treatment needs — between the genders.

With the bias towards research into male firesetters acknowledged, several empirical studies have examined group differences between firesetting and non-firesetting children and adolescents, based on samples obtained from community, outpatient or residential settings. In general, no consistent evidence has been found for a specific "profile" of the child or juvenile firesetter. Instead, there is considerable diversity in their demographic and individual, parental and familial characteristics. Reviewed in this section are some of the diagnostic and clinical characteristics documented among children who set fires.

In studies comparing children with versus without any firesetting on rating scales and diagnostic interviews, firesetting has been found to be associated with various forms of child dysfunction, such as heightened aggression (Kolko, Kazdin, & Meyer, 1985) and covert behaviors, such as lying, stealing, or running away, than both match players and non-firesetters (Kolko & Kazdin, 1991b). Heightened aggression and other antisocial behaviors in firesetters have been reported elsewhere (Cole, Grolnick, McCandrews, Matkoski, & Schwartzman, 1986; Cole, Grolnick, & Schwartzman, 1999; Gaynor & Hatcher, 1987; Jacobsen, 1985; Kolko et al., 1985; Showers & Pickrell, 1987; Stewart & Culver, 1982).

In more recent years, research has found the characteristics of juvenile firesetters to be similar to those of adult firesetters (Gannon & Pina, 2010) and continued to consistently link antisocial behavior to firesetting. An Australian study using a community sample of grade 8 students to assess the relationship between firesetting and a large range of family and individual factors found serious antisocial behavior to be the best predictor of self-reported firesetting (Martin et al., 2004). In comparison with non-firesetters, firesetters exhibit more antisocial behavior (Dadds & Fraser, 2006) and are more likely to be classified as "extreme" in their antisocial behavior (Martin et al., 2004).

Firesetting has been associated with the diagnosis of conduct disorder in some studies (see Heath, Hardesty, Goldfine, & Walker, 1985; Kelso & Stewart, 1986), but not others (Kolko & Kazdin, 1989a, 1989b; Kolko et al., 1985). It is worth pointing out at this stage that firesetting is one of 15 criteria, of which three are needed, for a diagnosis of Conduct Disorder (American Psychiatric Association DSM-V, 2013). However, it is as important to point out that not all firesetters meet the criteria for conduct disorder, nor do all conduct-disordered children exhibit firesetting behavior.

A history of abuse is a risk factor for various offending behaviors (Connolly & Woollons, 2008; Daigneault, Hebert, & McDuff, 2008; Lee, Jackson, Pattison, & Ward, 2002; Topitzes, Mersky, & Reynolds, 2011) including firesetting (McCarty & McMahon, 2005; Moore, Thompson-Pope, & Whited, 1996; Root, MacKay, Henderson, Del Bove, & Warling, 2008; Showers & Pickrell, 1987). Martin et al. (2004) found that firesetting boys were significantly more likely to have experienced physical or sexual abuse than non-firesetting controls and for boys, physical abuse was found to be a significant predictor of firesetting behavior. Root et al. (2008) found that maltreated youth involvement with fire was motivated by anger or an immediate family stressor to a significantly greater extent than that of their non-maltreated counterparts.

As witnessed in the previous comment, alongside the characteristics of firesetters often sit motivations and general clinical descriptions of different subgroups of firesetters. Cases have been described as "curiosity" (i.e., accidental fires due to curiosity or experimentation), "cry for help" (fires due to a need for attention or assistance in dealing with a recent stressor or crisis), "delinquent" (i.e., fires that reflect more generalized involvement in antisocial behavior, especially due to peer pressure and delinquency) and "pathological" or "severely disturbed" (i.e., serious firesetting characterized by frequent, intentional, concealed and destructive incidents, as well as clinical problems).

Although motivation is an important consideration when working with child and adolescent

firesetters, these typologies are problematic in a number of ways. There is only anecdotal support for these etiologies and the findings suggest more overlap than uniqueness in the primary characteristics of most firesetters. Similarly, by isolating motivations and attempting to group firesetters in this way, we fail to take into account that multiple motivations can play a role in an individual's firesetting behavior. Equally, a single firesetting incident may involve multiple motivations. There is also a danger that the use of "labels" loses sight of the individual, leading to practice that is no longer child-focused and also potentially misleading.

For example, to have a category described as curiosity implies that this is absent from severe, more concerning firesetting behavior. As a result, it could be seen that curiosity firesetters need relatively little in the way of intervention. This approach is particularly concerning when studies show that fire curiosity is actually associated with more severe, frequent and persistent firesetting behavior (Del Bove, 2005; MacKay et al.,2006); Kolko & Kazdin, 1991a). Heightened (versus low) curiosity in juvenile firesetters is associated with greater psychopathology (e.g., externalizing and internalizing behavior problems, hostility, inappropriate social behavior), firesetting risk (including recidivism) and fire interest and involvement (e.g., matchplay). Therefore, curiosity should not be dismissed as a relatively benign motivation.

The etiology of juvenile firesetting and the descriptive characteristics of children and adolescents who set fires provide us with a very general overview into these areas and the precipitants for a child's recent incident of firesetting may or may not be related to any of these documented variables. This is because of the potential influence of other features—such as exposure to fire materials—and that the behavior has multiple motives, antecedent conditions, and consequences.

## Family Patterns

Generally, family and parenting factors of child and adolescent firesetters have not been extensively researched. Yet we can be confident when we say that children and adolescents do not live in a vacuum, nor do they develop histories of setting fires in a vacuum. They live in families and the dynamics at work within a child's family can offer a valuable insight into the factors that may have contributed to the firesetting.

Some family variables, such as single-parent households (Pollinger, Samuels, & Stadolnik, 2005; Root et al., 2008), have been linked to juvenile firesetting; and like many children and adolescents with behavioral and emotional disturbances, firesetters tend to come from families characterized by dysfunction, parent psychopathology and maladaptive parent–child relationships. Although this trend is relatively consistent throughout the literature, there is less consistency in terms of the relationship between specific family factors and firesetting, and the role of family variables in the origins of a given firesetting incident are virtually unknown.

That said, in terms of the parental correlates of firesetting behavior, high levels of personal or relationship problems have been reported, such as psychiatric distress, marital disagreement, exposure to stressful life events and less child acceptance, monitoring, discipline and involvement in activities that enhance the child's personal development and family relationships (Kolko & Kazdin, 1986, 1991a). Firesetters have characterized their parent's child-rearing practices as involving greater lax discipline, non-enforcement, and anxiety induction.

Parents of firesetters have been found to provide limited supervision, while in comparison to non and minor firesetters, severe firesetters were more likely to experience strong feelings of anger at paternal absence, rejection, abandonment, or abuse (Sakheim & Osborn, 1999).

In an Australian study of children aged 4–9 years old, Dadds and Fraser (2006) looked at early screening and intervention opportunities for firesetting children in the community setting. The children were assessed using a seven-item fire interest history screen with other measures of antisocial behavior, children's mental health, and parenting style, quality, and parental stress included. The assessments were followed up with parent and teacher report measures and a diagnostic interview at 12 months. The study concluded

that, in addition to the child's own psychopathology, families of firesetters tended to be characterized by higher parental stress.

The parental and family factors related to children's firesetting mean that they are frequently identified as in need of clinical intervention. Just as the dynamics at work within a family can offer valuable insight into what may be contributing to the firesetting, these very dynamics can also play a significant role in the family's response and support for any interventions recommended for the child or adolescent. In addition to belief systems and family "rules" that may endorse antisocial attitudes and behaviors, does the family even take seriously the basic need to practice fire safety at home?

The practitioner may need to integrate parental or family interventions, such as communication training and family problem solving (Cole, Grolnick, & Schwartzman, 1993; Gaynor & Hatcher, 1987; Kolko, 1989, 1996a). The parent characteristics that are often important to include reflect on the adult's personal effectiveness and dysfunction, any history of psychiatric disorders (e.g., depression, substance abuse), parenting practices (e.g., limited management skills or monitoring/discipline, harsh or inconsistent punishment), and general interpersonal competence and appropriateness (e.g., poor judgement). Other aspects that bear consideration reflect on the parents' relationships with their children (e.g., limited supportiveness, warmth, or involvement; unaware of child's activities).

Ultimately, it has to be borne in mind that the family needs may be so acute that additional services or treatments are needed for the whole family before the child or adolescent can be expected to change their own behavior.

## Assessment and Diagnosis

Assessments of firesetting children and adolescents are essential in gaining an understanding of the behavior and selecting an appropriate treatment approach. Practitioners need to establish if this was the first and only fire set or whether it merely represents one of many fires. Understanding the history and pattern of the firesetting behavior is crucial in devising an effective intervention. Each time a child or adolescent intentionally starts a fire, they have made an active choice to create fire again. They have extended a repertoire of behavior, which although unsafe and potentially quite dangerous, has taken on some meaning for that child or teenager. Therefore, while there are no nationwide guidelines for capturing a history of firesetting behavior, it is important to know of structured assessments available that enable children and adolescents to talk about the fires they have set.

One example of a structured approach to collecting firesetting history information is found in the work of Kolko and Kazdin (1988) who developed a basic set of questions that quantify both the occurrence and the frequency of firesetting or match play incidents. The Firesetting History Screen (FHS) is a 14 question, structured form that asks about incidents within two time frames: the last 12 months (current period) and more than 12 months ago (past period). The child or adolescent is asked to answer these questions as a first step in determining how many times they have engaged in firesetting behavior. Vitally, parents are also asked the same questions about the child's behavior in the parent version of the screen. Relatively high agreement is found between the parent report and the reports of the children when administering the screen in both an inpatient and outpatient setting (Kolko & Kazdin, 1988).

The FHS provides a clear and succinct glimpse of the child's history of firesetting behavior. It offers a sense of how often this behavior has occurred and what was burned, while also delineating a time frame during which these events transpired. The parent and child screens are easy to administer and can be applied in a clinical or non-clinical setting, including schools and fire departments.

Designed to parallel the FHS, the Firesetting Incident Analysis (FIA) was developed to provide a quantitative assessment of various parameters

or details of a specific firesetting incident, especially the most serious firesetting incident (Kolko & Kazdin, 1991a, 1991b). Designed to be administered to parents, a shorter measure was developed for children and adolescents in 1994 (Kolko & Kazdin, 1994).

The parent version (FIA-P) consists of 50 questions, covering four domains. Firstly, the details and characteristics of the firesetting incident; second, the levels of behavioral and emotional correlates that were evident in the 2 weeks prior to the fire; third, the child's potential motives for the fire, and fourth any consequences following the fire. The child version (FIA-C) has 21 questions that parallel those of the parent version, similarly soliciting information about a specific firesetting incident and exploring the areas of motive, consequences and details of the fire, including where the ignition materials came from. The measure has identified that when parents respond to a firesetting incident with few or no consequences, there is a greater likelihood that the child will engage in future incidents of match play or firesetting. Furthermore, if a child shows a positive reaction to the fire or even a neutral reaction with little or no remorse, there is a greater likelihood of future incidents of firesetting. Setting a fire can very often be a rewarding, positive experience in itself, and when there are no negative consequences for this act it can become a rewarding experience that often begs to be repeated. Trying to get a sense of how often this has occurred for the child allows an insight into how often the child has used fire as a vehicle to satisfy their curiosity, act out anger, relieve boredom, or assert themselves with peers. In the course of gathering this history of the child's firesetting behavior, we begin to understand what has motivated and possibly reinforced or rewarded their continued interest in setting fires. It can also give us a better understanding of the role firesetting plays within the life of the child and their family.

Given the interplay of fire interest, the child's individual clinical characteristics, and family dynamics, there is widespread agreement among clinicians and researchers working with firesetters that the need for comprehensive assessments that consider the domains of fire history have to be accompanied by assessments looking at individual functioning (cognitive, behavioral, social, and emotional) and family functioning (Kolko, Wilcox, Nishi-Strattner, & Kopet, 2002; Stadolnik, 2000).

The Firesetting Risk Inventory (FRI) (Kolko & Kazdin, 1989a) for parents, and the Children's Firesetting Inventory (CFI) (Kolko & Kazdin, 1989b) can be administered as a self-report or, as needed, an interview. The CFI can also include the use of certain props (e.g., fake box of matches, cell phone) for use in role play with the child or teenager. The items are scored simply by summing items within a given domain to get a total score. The inventories evaluate several fire-specific characteristics (e.g., curiosity about fire, involvement in fire-related acts, exposure to peers or family fire models, complaints about fire behavior, early experiences with fire), general child or parent behavior (e.g., increased negative behavior) and family environment (e.g., greater use of harsh punishment, less effective mild punishment). The FRI and CFI have good test reliability and are noteworthy for their use of structured, objective scoring procedures and for their being subjected to empirical evaluation.

The Oregon Office of State Fire Marshal convened a task force of treatment providers, program co-ordinators, and project supervisors to develop the Oregon Model (1996). The model developed Fineman's (1995) dynamic-behavioral theory—where firesetting is the result of the interaction of risk factors from three domains: personality and individual factors, family and social factors, and immediate environmental conditions—and presented firesetting behavior as a dynamic and repeating cycle. The cyclical pattern involves the community (the Community Cycle), family reactions (the Family Cycle), the child's behavior (the Behavioral Cycle) and the child's psychological factors (the Cognitive/ Emotional Cycles). In this model, each of these four cycles contributes to the recurrence of the firesetting behavior, and should be targeted for assessment and intervention.

A further assessment tool has been developed by Dr. Robert F. Stadolnik. The Firesetting Risk Assessment Tool for Youth (FRAT-Y) is designed to be consistent with best practice guidelines for clinical risk assessment, uses multiple methods, measures, and domains, and provides the practitioner with a framework for firesetting assessment that was derived from existing literature and research evidence. The FRAT-Y is appropriate for use with children aged five to 17 years and is completed by a mental health clinician who is looking at 17 risk factors in five key areas of parent/family functioning; behavioral functioning; social/emotional functioning; school/cognitive functioning, and firesetting behavior.

With respect to the child's dysfunction, the use of some type of measure of emotional and behavior dysfunction, as well as measures of general adjustment, are encouraged. As noted earlier in this chapter, several diagnostic and clinical characteristics have been documented among children who set fires, including heightened behavioral dysfunction (both overt behavior problems, such as aggression, as well as involvement in covert or concealed antisocial acts). Other important constructs for assessment include impulsive/emotional reactivity, cognitive distortion, and the child's history of victimization/trauma. Lambie, Ioane, Randell, and Seymour (2013) in their 10-year study of offending behaviors by child and adolescent firesetters recommended the Strengths and Difficulties Questionnaire (Goodman, Ford, Simmons, Gatward, & Meltzer, 2000) as an easily accessible assessment tool for practitioners with no clinical training. They concluded that the adoption of such an assessment tool would reduce potential practitioner bias, help ensure referrals are consistent and help facilitate co-operation with other services such as mental health.

In addition to the clinical assessments cited in this section, it is worth noting that fire departments receiving referrals for children and adolescents setting fires often administer brief screening measures administered by fire service staff to triage their needs and determine intervention approaches. However, little is known about the validity or usefulness of these measures due to the absence of empirical data.

## Course and Prognosis/Recidivism

Much of the evidence for reductions in the frequency and severity of firesetting has been reported by fire departments anecdotally or in case reports or uncontrolled studies in the research literature. In general, most community programs report low recidivism rates. This optimistic impression is consistent with the results of controlled studies that included fire safety and clinical intervention components that have reported significant reductions in the frequency of firesetting after intervention, with modest 1-year recidivism rates.

A prospective study that followed a sample of 138 children for 1 year showed that 14 out of 78 non-firesetters (18%) had later set a fire, and that 21 of 60 firesetters (35%) had set an additional fire by follow-up (Kolko & Kazdin, 1992). Late starting was associated only with limited family sociability, whereas recidivism was associated with child knowledge about combustibles and involvement in fire-related activities, community complaints about fire contact, child hostility, lax discipline, family conflict, and limited parental acceptance, family affiliation, and organization.

A 2-year follow-up study of 268 patient and non-patient children (aged 6–13 years) that included some of the sample reported above used fire history reports to classify cases into one of three mutually exclusive categories in order to determine how many children engaged in firesetting or matchplay only (Kolko, Day, Bridge, & Kazdin, 2001). Based on the aggregated reports of children and their parents, both patients and non-patients reported high levels of follow-up firesetting (49%, 64%) and matchplay (57%, 76%), though the frequency of each behavior was generally higher for patients than non-patients for both firesetting and matchplay. In these samples, 25 of 50 non-patients (50%) and 26 of 44 patients (59%) were recidivists, whereas 14 of 110 non-patients (13%) and 11 of 42 patients (26%) became late-starters. Such findings highlight the prevalence of firesetting in clinic and non-clinic samples, and the continuity of firesetting over time.

This study also examined fire-specific and general psychosocial measures as predictors of follow-up firesetting and matchplay, separately for patients and non-patients (Kolko et al., 2001). Early firesetting and matchplay were significant predictors of follow-up fire involvement in both samples. The psychosocial predictors of firesetting that added incremental variance beyond this fire history varied by sample. In the non-patients, two other predictors were found (i.e., exposure to fire models, parental psychological control). In the patients, several variables served as predictors (e.g., fire competence, complaints about the child, parental distress, harsh punishment, social service contact). These findings highlight some of the potential risk factors for later involvement with fire which included, not surprisingly, prior firesetting and matchplay.

As with the onset of firesetting, the continuation of firesetting generally falls into two domains (Kolko, 1996a). The first, *involvement with, interest in, and/or awareness of fire*, includes matchplay and firesetting, and circumstances that support fireplay, such as curiosity about or attraction to fire and limited fire competence (Grolnick et al., 1990). The second domain, *general behavioral/environmental dysfunction or conditions*, reflects factors that may increase children's involvement in deviant behavior. Such characteristics reflect various forms of child (e.g., aggression), parent (e.g., poor monitoring), and family dysfunction (e.g., conflicts) likely to increase interpersonal problems and limit positive family interactions (Kolko, 1999).

At the time of this study, there was little evidence to determine whether firesetting is a robust predictor of delinquent activities. A recent study by Lambie et al. (2013) assessed arson recidivism and other offending rates for a group of 182 firesetting children and adolescents referred to the New Zealand Fire Awareness and Intervention Program (FAIP) over a follow-up period of 10 years, which concluded many firesetters are at risk of further delinquent activities, including severe offences. The study, largely composed of male and intentional firesetters, aimed to investigate predictors of offending behaviors as well as variables associated with previous involvement

in firesetting behavior and offending severity. Data supplied by the FAIP were analyzed against the New Zealand police database.

The FAIP is a nation-wide educational program established in 1992 and available to children and adolescents up to the age of 18 years who have engaged in fire-related behaviors. The FAIP is delivered in a total of five regions across New Zealand and provides intervention for children from the ages of 3–17 years, and their parents. Delivered by fire service personnel in the child's home setting, the FAIP program has an advisory psychologist who acts in a supporting role for practitioners and provides training, advice on referrals to other agencies and regular supervision to practitioners. The consultant psychologist also undertakes assessments where a practitioner identifies a child as being at high risk of further firesetting.

Although the arson recidivism rate was low (2%), rates of general offending were high, with 59% of the sample having committed an offence during the follow-up period. Fifteen percent of the sample was classified as severe offenders e.g., robbery, sexual assault, serious assault), 40% as moderate (e.g., arson, burglary or speeding offences) and 4% as minor (e.g., theft). Of the offenders, 12.6% had been imprisoned during the follow-up period. Offending was predicted by experience of abuse and a previous firesetting behavior at the time of the FAIP intervention. The presence of family stress and a diagnosis of Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD) were associated with previous firesetting behavior. In addition, involvement with family violence (as a perpetrator, complainant or victim) was associated with more severe offending behavior.

The finding that previous involvement in firesetting activity predicted later offending suggest that within a firesetting sample, repetitive firesetting behavior may indicate particular risk for later offending. This finding may reflect the likely relationship between firesetting and severe antisocial behavior, and that the presence of firesetting behavior may, for some individuals, act as a key indicator of an individual at particularly high risk for severity of antisocial behavior and later

offending (Becker et al., 2004); Martin et al., 2004). The lack of understanding as to why firesetting is associated with severe antisocial behavior and risk for future offending remains unexplained and the study recommended this is both acknowledged and investigated further. The study further recommended a need for research involving large samples, a control group of nonfiresetters, extended follow-up periods and the inclusion of psychological measures that could provide greater depth of analysis of risk factors and outcomes.

The clinical implications of the study are to set as imperative the need for intensive services for the child and their family as early as possible. A large number of the children who later became offenders had no previous agency involvement, nor post-intervention referral, meaning firesetting intervention programs provide an important point of contact for at-risk children who are not known to other support agencies. A multi-agency, collaborative approach should be considered to increase the likelihood that wider behavioral and mental health problems can be addressed.

## Treatment

Approaches to treatment for child and adolescent firesetters fall broadly into two categories, the educational (e.g., related to the child's learning abilities and development, and seeking to improve a child's fire knowledge, safety, and competency through activities such as stop, drop and roll; escape plans; and making emergency calls) and the psychosocial (e.g., addressing the psychological and social factors associated with firesetting, often involving cognitive-behavioral treatments and the enhancement of social skills such as problem-solving and consequential thinking). Broadly speaking, the educational interventions are carried out by the fire service and the psychosocial approaches will be delivered by mental health services. Within the educational approach taken by fire service personnel, this can be further broken down into approaches that involve a one-off home visit by firefighters (often in uniform, delivering standardized messages of the dangers

of fire and the role of a firefighter) versus tailored visits by personnel from within fire services (including both fire-fighters and non-firefighters) that are trained to work with children and young people who have set fires.

Kolko (2001) reported 1-year recidivism rates for these three intervention approaches as 24% for Fire Safety Education (FSE), 22% for Cognitive-Behavioral Treatment (CBT) and 44% for Home Visit from a Firefighter (HFV). Assessments were conducted with 38 children who were randomly assigned to CBT or FSE and with another 16 children who received a brief HFV. There were several improvements at posttreatment for all conditions on measures of fire involvement, interest and risk, but CBT and FSE proved more efficacious including the frequency of firesetting at 1-year follow-up.

Kolko et al. (2008) conducted a survey of juvenile firesetter intervention programs to empirically depict the nature of the work being carried out across North America. A total of 150 programs, serving 8501 children, completed surveys of which 31 were affiliated with state-wide coalitions. Survey questions examined staff and program composition, child and family characteristics, program operations and areas that needed development. Comparisons between state coalition and independent programs revealed many similarities (e.g., program size, number of referrals and ages, training, and program type) and a few key differences in methods, infrastructure, and philosophy. Coalition programs often include inter-agency relationships with law enforcement and juvenile justice agencies and as a result, tend to see older children who have been referred for firesetting services. The coalition programs also reported higher rates of some mental health problems and abuse histories in their children, a greater need for referrals to mental health professionals, and higher rates of repeated firesetting in their samples.

It was identified that over the previous two decades, there had been significant growth in the availability and scope of community-based intervention programs and materials to educate and treat juvenile firesetters. Results indicated that fire safety education delivered by the fire service

(about 75%) was the most commonly used intervention to treat juveniles, with the remaining 25% representing several disciplines (law enforcement, mental health, social services). Most of the clients were males between the ages of 7 and 12 years. The clients were characterized as having heightened levels of hyperactivity, peer problems, and behavioral dysfunction, a 10% rate of suicidality, and rates of child maltreatment that paralleled national rates for physical (27%) and sexual abuse (14%). Paralleling the diverse clinical problems reported among child firesetters, nearly two thirds of parents were perceived as having multiple stressors or problems, including marital/partner problems, poor understanding of fire safety/prevention, substance use problems, use of harsh discipline and poor parenting practices, and a lack of involvement with the child; underscoring the need to target parental and family dysfunction found in families of firesetting children as highlighted earlier in this section.

The most common service offered to clients' involved child or parent interview (80% and 90% respectively). Screening or triage assessment were generally used to determine whether or not a child should remain in the fire service but could also help to characterise the child's risk status and areas for targeted intervention. About one-half of the programs offered brief counselling for both children and parents, with less than one-third offering more extended services. Importantly, one half of the programs conducted some type of pre, post or formal evaluation on the effects of fire safety training, the inclusion of which is essential for accurate program evaluation. Survey respondents indicated that fire safety education was by far the most effective service and it was the most commonly recommended service designed to discourage a child's firesetting. The average recidivism rate among participants was about 3%, far lower than many of the empirical studies cited earlier in this chapter. Although these results highlight the discrepancies that can occur between retrospective and prospective data, the extremely low average recidivism rate reported in this survey provides an indication of the potential benefits of these existing community services.

Taking into consideration the limits of the study (e.g., a single, self-reporting instrument, and many existing programs may not have contributed surveys to the study), it establishes that the number of intervention programs has increased throughout North America. There appears to be an improved knowledge base regarding background and mental health characteristics of the client population, the use of diverse assessment tools and intervention services, the use of fire safety education as the primary functions provided by these programs and collaborative working, especially with mental health providers.

Such developments in program monitoring and co-ordination are necessary to maximise the efficiency, impact, and accountability of these services, thereby helping us to better identify and address the contributors to firesetting recidivism. Accordingly, it is important to examine for each promising intervention its initial and long-term impact on both fire-related activities and other general outcomes, be it improved adjustment or clinical status, reduced system involvement, consumer acceptability, or cost-effectiveness.

## Summary

There has been a steady, albeit modest, growth in the availability of research documenting the prevalence, severity, course, and modification of child firesetting. This chapter reviews what is known in these areas along with some emerging findings in this area. Collectively, these studies provide some directions in screening, assessing, and treating this potentially serious problem behavior in children and adolescents. And, there are a few developments in terms of understanding the role of key variables that contribute to firesetting behavior and novel assessment methods. However, studies with larger samples and more rigorous methodologies are still needed, given that many existing reports are old or limited in scope. The absence of new research continues to hamper our efforts to fully understand, ethically treat and effectively evaluate the impact of our methods to address this often complex and sometimes devastating childhood behavior at the population level.

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# School Bullying and Cyberbullying: Prevalence, Characteristics, Outcomes, and Prevention

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## Description of the Problem

School bullying is an extremely damaging type of aggressive behavior which might start in early childhood and continue throughout the school years. It can occur in any geographic area, and different socioeconomic settings and cultures (Smith, Kwak, & Toda, 2016). Taking into account the complexity of the phenomenon, it is very difficult to define. Recently, a new type of bullying called cyberbullying has been perpetrated through electronic devices.

Throughout the history of the field, bullying has been defined and measured in many different ways (Zych, Ortega-Ruiz, & Del Rey, 2015a, Zych, Farrington, Llorent, & Ttofi, 2017). Nowadays, there is agreement on its most important characteristics. Bullying is a specific type of violence that takes place in schools among students. It is a frequently

repeated, long-term systematic aggressive behavior (Smith & Brain, 2000) perpetrated by some students on their peers who are unable to defend themselves (Olweus, 1999). With time, some students become chronic perpetrators while others become their victims. This happens under a "law of silence," that is, there are many people who are aware of the situation but do not report it.

The use and misuse of information and communication technology by children and youth moved bullying into the cyberspace. A relatively new phenomenon called cyberbullying has been defined as bullying perpetrated intentionally and repeatedly through electronic devices (Patchin & Hinduja, 2015). Cyberbullying can be perpetrated by groups or individuals on a victim who cannot defend himself or herself (Smith et al., 2008). This kind of aggressive behavior can take place in school and outside of school, with or without anonymity (Tokunaga, 2010). In this context, a victim can be attacked 24 h a day and 7 days a week. The power imbalance and repetition are two criteria for cyberbullying that are still being debated (Slonje, Smith, & Frisen, 2013). Taking into account this specific context (i.e., cyberspace), even one short aggressive act, such as uploading a harmful message, picture or video, can have lasting effects for years and a person can be repeatedly victimized even without any further intervention by the perpetrator. Menesini, Nocentini, Palladino, Frisen, et al. (2012) conducted a study with adolescents from

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six European countries who reported on their understanding of the concept of cyberbullying, discovering that it is unclear whether repetition should be included in the definition.

Given that electronic devices are changing very quickly, it is necessary to constantly redefine cyberbullying and the way in which it is measured (Corcoran, Guckin, & Prentice, 2015). For example, some years ago, it was a common practice to describe cyberbullying perpetrated through cell phones and through the Internet. Nowadays, almost all the cell phones have an Internet connection and, therefore, these two types of cyberbullying are no longer distinguished.

Many definitions of bullying include different aggressive behaviors grouped into bigger categories such as direct and indirect bullying (Rivers & Smith, 1994). Direct bullying occurs when a perpetrator directly targets a victim (e.g., when a perpetrator insults or physically hurts the victim) whereas indirect bullying is mediated by other people (e.g., when a perpetrator spreads rumors or encourages others to exclude the victim from a group). Bullying can also be divided into physical (e.g., pushing, punching, kicking) or verbal (e.g., insulting, name calling). Some, but not all, of these forms can also occur in cyberbullying (e.g., a person can be directly insulted through electronic devices or indirectly excluded from a social network).

Bullying is not only an individual aggressive behavior. Above all, it is a group phenomenon in which certain students display relatively stable behavioral patterns and assume specific roles. Salmivalli, Lagerspetz, Bjorkqvist, Osterman, and Kaukiainen (1996) pointed out that there are some students who become perpetrators (also called bullies), others become victims, and there is also a group of bystanders. Among the bystanders, some reinforce the bully, others defend the victim, and others do not get involved in the situation. Perpetrators use violence to achieve social status in a group (Salmivalli, 2010). With time, they learn to behave in an aggressive way in order to achieve their goals. Some children become bully-victims, that is, they display frequent and repeated aggressive behaviors and are also frequently and repeatedly victimized.

Studies on cyberbullying usually focus on the same roles as those described in face-to-face bullying (i.e., cyberbullies, cybervictims, cyber bully-victims, and bystanders). Nevertheless, these roles are still under debate. The specific context of cyberspace should be taken into account when approaching the phenomenon. As pointed out by Smith (2012), bystanders can physically witness an act of cyberbullying with a perpetrator or a victim (e.g., looking at a screen together) or, for example, be present only through electronic devices. It is also possible that a person is victimized even when a perpetrator withdraws from the situation because different people might distribute the harmful content.

Both bullying and cyberbullying should be approached from a broad ecological and systemic perspective that integrates the dynamic interaction of contextual and individual factors (Espelage & Swearer, 2004). There are studies that focus on the positive school climate (Ortega-Ruiz, Del Rey, & Casas, 2013) or more recently, on the positive climate and relationships in online interactions (Ortega-Ruiz, Casas, & Del Rey, 2014). Income inequalities or violence in the cities were found to be related to more bullying, whereas classroom management or teacher support are linked to less bullying, according to a systematic review of studies on bullying and contextual factors (Azeredo, Rinaldi, de Moraes, Levy, & Menezes, 2015). This ecological framework was also applied to cyberbullying (Baldry, Farrington, & Sorrentino, 2015) and it was reported that school policies and school climate are important also for this type of violent behavior. Thus, bullying and cyberbullying are not only dyadic or individual behaviors, but types of violence that are explicitly or implicitly present in different environments and societies.

Cyberbullying is a new form of violent behavior and there is still an open debate about whether it should be treated as a type of bullying or a different phenomenon. Research that focuses on both phenomena at the same time shows that bullying and cyberbullying are strongly correlated (Zych, Ortega-Ruiz, & Del Rey, 2015b) and roles overlap, especially for boys (Baldry, Farrington, & Sorrentino, 2017).

## Historical Background

Bullying and cyberbullying are now being studied in many different countries around the world. Although this research line started about 45 years ago, international interest in the topic is relatively recent. Throughout these 45 years, the field experienced great progress and the accumulation of a lot of knowledge about the nature and dynamics of bullying and cyberbullying.

Although there were different research lines on aggressive behavior in children and adolescents, the concept of bullying was first introduced and systematically studied in Scandinavian countries. In the early 1970s, in Sweden, Dan Olweus published a book entitled "Aggression in the Schools: Bullies and Whipping Boys" (Olweus, 1973). This became the first well known publication on the topic distributed around the world, including the USA (Olweus, 1978). In the early 1980s, Norwegian communication media reported cases of boys who committed suicides that were attributed to bullying. These tragic events led to the development of the first anti-bullying intervention (The Olweus Bullying Prevention Program) supported by the Norwegian Ministry of Education and led by Olweus (Olweus & Limber, 2009).

Social concerns about bullying increased in different countries after it started to become a popular topic in the communication media in the 1990s. Fruitful research lines appeared all over the world including, for example, the UK (Farrington, 1993; Whitney & Smith, 1993), Australia (Rigby & Slee, 1991), the USA (Dodge, Coie, Pettit, & Price, 1990), Finland (Salmivalli et al., 1996), Canada (Atlas & Pepler, 1998), and Spain (Ortega, 1997). Most of these initial studies focused on the nature and dynamics of bullying.

Once the awareness of the problem was raised, the number of studies on bullying started to increase exponentially, and research results from different countries started to be compared and synthesized. A good example can be found in a book edited by six prestigious scientists from different countries (Smith et al., 1999) that included chapters on the nature of bullying in more than 20 countries.

After the success of the Olweus Bullying Prevention Program, with more than a 50% drop in the percentage of perpetrators and more than a 40% drop in the percentage of victims (Olweus & Limber, 2009), interventions started to be designed, implemented and evaluated in many different countries. Dozens of anti-bullying programs were implemented between the 1990s and 2000s, and a meta-analyses of these evaluations published by Farrington and Ttofi (2009) showed that, overall, they were effective in decreasing bullying. Details of the effectiveness of the interventions and their components are described in the last section of this chapter.

Bullying has probably always existed in schools and has been studied for over four decades. On the other hand, cyberbullying is a new phenomenon that appeared along with the massive use of electronic devices, around the late 1990s and early 2000s, and started to be studied shortly after its emergence. Many of these early studies were conducted in the USA (Patchin & Hinduja, 2006; Ybarra & Mitchell, 2004) and then spread very quickly all over the world including the UK (Slonje & Smith, 2008), Canada (Li, 2007), and Spain (Ortega, Calmaestra, & Mora-Merchán, 2008), among others. Most of these studies focused on the nature and dynamics of cyberbullying together with the risk factors (see reviews by Baldry et al., 2015; Smith & Berkkun, 2017).

Shortly after the first descriptive studies on cyberbullying, researchers in different countries started to design and implement interventions to reduce the phenomenon (see reviews by Cross, Barnes, et al., 2015; Della Cioppa, O'Neil, & Craig, 2015). Programs against cyberbullying are being conducted in Australia (Cross, Roberts, & Slee, 2013), Spain (Ortega-Ruiz, Del Rey, & Casas, 2012), the UK (Thompson & Smith, 2011), and at the European level (Athanasiades, Kamariotis, Psalti, Baldry, & Sorrentino, 2015). Again, details on effective programs and their components are provided in the last section of this chapter.

Nowadays, there are thousands of studies on bullying and cyberbullying published worldwide and their number increases exponentially (Smith & Berkkun, 2017; Zych et al., 2015a). Much knowledge has been gathered, but there are still many questions that remain unanswered and issues to be addressed. One of the current challenges is to synthesize what has already been found and achieve a global vision of the field. Recently, many narrative and systematic reviews and also meta-analyses have been published (see, for example, a Special Issue on "Bullying, Cyberbullying and Youth Violence: Facts, Prevention and Intervention" edited by Zych et al., 2015b). Current studies focus also on long-term outcomes (see, for example, a Special Issue on "Interrupting the Continuity From School Bullying to Later Internalizing and Externalizing Problems: Findings From Cross-National Comparative Studies" edited by Ttofi, Farrington, & Lösel, 2014) and possible protective factors (see, for example, Ttofi & Farrington, 2016, Zych et al., 2017). Research is also being conducted in the geographic areas where bullying and cyberbullying are still understudied, such as Asian countries (see Sittichai & Smith, 2015) and Latin America (see Herrera, Romera, & Ortega-Ruiz, 2018). Given that both bullying and cyberbullying are present in schools all over the world, researchers, practitioners, and policy makers are working to eradicate this extremely damaging type of violence.

## Prevalence of Bullying and Cyberbullying

Although there is agreement on the fact that both bullying and cyberbullying are present all over the world, it is very difficult to establish the exact prevalence of the phenomena. Comparing prevalence among different geographic areas or cultures is even more complicated. There are two main reasons of these difficulties, namely, differences in definitions and in the way that the phenomena are measured.

Bullying and cyberbullying are specific types of violence. It is now widely recognized that they involve long-term and repeated acts and that a single aggressive act cannot necessarily be classified as bullying. Nevertheless, there is no agreement on how many acts are required, what the frequency of repetition should be, or how many days, weeks, or months bullying should last. A power imbalance between bullies and victims is an important criterion of the definitions, but it is rarely included in measurement instruments. The terms bullying and cyberbullying have equivalent terms with similar meanings in some languages but seem to be understood in different ways in other languages or cultures (Smith, Cowie, Olafsson, & Liefooghe, 2002). Thus, it is reasonable to suggest that prevalence rates would differ depending on the conceptualization and measurement.

Measurement instruments influence greatly the findings of different studies. Most of the research is conducted with self-reports, although there are also instruments based on peer nominations, teacher or parent reports. There are many studies that have been conducted using a single-item question, usually after providing a definition of bullying or cyberbullying. There are also many investigations, published more recently, that use multi-item scales. Among these scales, prevalence is usually calculated if a person gives an answer above an established cutoff point on any item of the scale. It is also sometimes established by cluster analysis, using a mean total score and standard deviation (e.g., children are considered involved if they score one standard deviation above the mean). Moreover, cutoff points vary among the studies (e.g., some use only one act perpetrated once while others require a weekly frequency), together with the time period (e.g., the past 2 months or "ever"). Some instruments are validated and have good psychometric properties, while others were constructed on a theoretical basis, without any further statistical analyses. Prevalence differs greatly depending on these methodological issues, and our studies on the topic show that rates found with multi-item scales can be twice as high as those found with a single item (Baldry & Farrington, 2004; Zych, Ortega-Ruiz, & Marín-López, 2016).

Taking into account these methodological and conceptual issues, it would seem reasonable to conclude that, at least in some cases, prevalence rates depend more on how bullying or cyberbullying are measured than on the actual rates in a population. Thus, percentages and any possible comparisons among studies, countries, or regions should be interpreted with caution. If this is taken into account, an analysis of national and international studies with broad representative samples can shed some light on prevalence.

The number of studies on bullying and cyberbullying in Africa is small. Boyes, Bowes, Cluver, Ward, and Badcock (2014) conducted a survey with more than 3000 children and adolescents in South Africa. They asked about any bullying victimization and about four or more types of victimization in the past year. Any bullying victimization was reported by 52% (year 1) and 46% (year 2) and four or more types of victimization by 13% (year 1) and 6% (year 2). Also in South Africa, Kyobe, Oosterwyk, and Kabiawu (2016) conducted a study with more than 3000 adolescents. They found that 4% perpetrated bullying through cell phone, 6.3% were victimized by cell phones and 0.5% were bully/victims. In Egypt, Habashy Hussein (2013) found that, among more than 600 elementary school students, 21.7% reported bullying perpetration, 28.6% reported victimization and 9.5% were bully/victims. Olumide, Adams, and Amodu (2015) surveyed more than 600 Nigerian children, among whom 53.9% experienced and/or knew somebody who experienced cyberbullying.

Studies in Asia are also in their early stages. In China, Cheng et al. (2010) found that, among more than 9000 middle school students, 25.7% reported being victims of bullying. Sittichai (2014) conducted research on bullying in Thailand. In her study with more than 1000 adolescents, bullying victimization was reported 16% (occasionally) and 6% (frequently). Cyberbullying rates were slightly lower, with 14.9% occasional victims and 3.7% frequent victims. In Japan, bullying has been studied under the term *ijime*. In a sample of almost 3000 middle school students, Akiba, Shimizu, and Zhuang (2010) reported that 31.7% were victimized and 30.6% were perpetrators.

In Australia, research on bullying and cyberbullying has a long tradition. Prevalence has been reported for many years and only some of the recent findings are described in this chapter. Cross, Lester, and Barnes (2015) conducted a cohort study of 1500 adolescents followed from ages 13 to 15. Cyberbullying and bullying victimization was reported by 24.5% (in 2010), 23.8% (in 2011) and 21.8% (in 2012). Bullying victimization only was reported by 47.7% (in 2010), 40.3% (in 2011) and 35.8% (in 2012). Cyberbullying victimization only was reported by 2% (in 2010), 2.4% (in 2011) and 2.5% (year 2012). Also in Australia, Rigby and Johnson (2016) found bullying victimization rates of 19.8% as a result of a survey of more than 1500 children. Raskauskas, Gregory, Harvey, Rifshana, and Evans (2010) surveyed more than 1000 New Zealand elementary school students. They reported bullying victimization rates of 15% and bullying perpetration rates of 13%.

European research on bullying and cyberbullying is very well established and developed in many European countries. Thus, only some recent findings from different European countries will be described here. In Italy, Baldry, Farrington, and Sorrentino (2016) studied bullying and cyberbullying with more than 5000 adolescent participants. They reported bullying perpetration rates of 13.3%, bullying victimization rates of 12.4% and bully/victim rates of 26.8%. Cyberbullying rates were much lower, with 4.4% of perpetrators, 2.4% of victims and 1.9% of cyberbully/cybervictims. In Austria, Gradinger, Strohmeier, and Spiel (2010) surveyed more than 1000 students aged between 10 and 15. Occasional (47.5%) and frequent (11.7%) bullying perpetration rates were much higher than occasional (6.3%) and frequent (1.6%) cyberbullying perpetration rates. A recent study in Spain (Zych, Ortega-Ruiz, & Llorent, submitted) on more than 2000 adolescents revealed bullying perpetration of 5%, bullying victimization of 23.2%, bully/victim status of 16.4%, cyberbullying perpetration of 4.3%, cyberbullying victimization of 13.1%, and cyberbully/cybervictimization of 10.8%. In Poland, victimization of any type was reported by 18.7% of late adolescents, perpetration was

reported by 13.1% and there were 44.1% of mild and severe bully/victims (Zych, Ortega-Ruiz, & Llorent, 2017).

In the UK, Smith et al. (2008) reported different rates calculated with different timeframes in a study with more than 500 adolescents. Bullying victimization rates were 13.5% (in the last week or month), 5.9% (in this term), 13.7% (in the last school year) and 25% (over a year ago). Bullying perpetration was reported by 9.2% (in the last week or month), 4.4% (in this term), 4.8% (in the last school year) and 7.4% (over a year ago). Cyberbullying victimization rates were again lower with 5.3% (in the last week or month), 5.1% (in this term), 3.7% (in the last school year) and 3.1% (over a year ago). Cyberbullying perpetration was found in 6.5% (in the last week or month), 2.8% (in this term), 1.8% (in the last school year) and 1.4% (over a year ago).

In Finland, Yang and Salmivalli (2015) described self-reported and peer-reported involvement in bullying by a sample of more than 23,000 students. Bullying victimization rates were 10.1% (self-reported) and 7.2% (peer reported), bullying perpetration rates were 3.5% (self-reported) and 7.2% (peer reported), bully/victims were revealed by 2.4% (self-reported) and 1.6% (peer reported).

Latin America is another understudied geographic area with a small number of studies on bullying and cyberbullying. In Colombia, Chaux and Castellanos (2015) surveyed more than 50,000 students in grades 5 (10–12 years old) and 9 (14–16 years old). Bullying victimization was reported by 20.8% (Grade 5) and 10.3% (Grade 9), bullying perpetration was reported by 13.5% (Grade 5) and 15.3% (Grade 9), and being a bully/victim was reported by 8.3% (Grade 5) and 4.4% (Grade 9). Also in Colombia, Herrera-López, Romera, & Ortega-Ruiz (2017) found a prevalence of bullying perpetration of 4.5%, a victimization rate of 23.4%, and 14% who were bully/victims. Cyberbullying rates were lower with 10.7% of victims, 2.5% of perpetrators and 5.5% of cyberbully/cybervictims. In Chile, Hidalgo-Rasmussen et al. (2015) studied more than 7000 adolescents of whom 14.7% reported bullying victimization. In Mexico, Martínez

Vilchis et al. (2015) conducted research with more than 13,000 adolescents and reported a prevalence of bullying perpetration of 3.1%, of cyberbullying perpetration of 7.7% and cyberbullying victimization of 23.9%.

As in the case of Europe and Australia, research on bullying and cyberbullying in the USA and Canada is well developed and established. In a national study of more than 7000 adolescents, Wang, Iannotti, and Nansel (2009) found that bullying was perpetrated by 13.3% (physical), 37.4% (verbal) and 27.2% (relational). Bullying victimization was reported by 12.8% (physical), 36.5% (verbal), and 41% (relational). The prevalence of cyberbullying perpetration was 8.3% and of cyberbullying victimization was 9.8%. Kowalski and Limber (2007) studied cyberbullying with more than 3000 adolescents who reported cyberbullying perpetration of 4.1%, victimization of 11.1% and being a cyberbully/cybervictim of 6.8%. Canadian adolescents (more than 2000) reported cyberbullying perpetration of 8%, cyberbullying victimization of 23.8% and being a cyberbully/cybervictim of 25.7% (Mishna, Khoury-Kassabri, Gadalla, & Daciuk, 2012). Also in Canada, a cohort study conducted over 7 years by Pepler, Jiang, Craig, and Connolly (2008) with more than 800 children found that bullying perpetration was constantly high in 9.9%, while in 13.4% it was high at the beginning and decreased in high school, in 35.1% it was constantly moderate, and 41.6% did not report perpetration at any time.

There are also research syntheses that have calculated mean prevalence rates based on different empirical studies. Modecki, Minchin, Harbaugh, Guerra, and Runions (2014) reviewed 80 studies on bullying and cyberbullying in adolescents. They reported that prevalence rates were higher when a definition was provided and included words such as "fun" or "tease." Lower rates were found when the word "bully" and behavioral examples were included in the instrument. Overall, cyberbullying was less prevalent than bullying; perpetration rates were 35% for bullying and 16% for cyberbullying, whereas victimization rates were 36% and 15%, respectively.

A systematic review of studies on cyberbullying in US middle and high schools (Selkie, Fales, & Moreno, 2016) with 58 empirical studies reported perpetration rates between 1% and 41%, victimization rates between 3% and 72%, and cyberbully-cybervictimization rates between 2.3% and 16.7%. In Latin America, Herrera and colleagues (Herrera-López, Romera, & Ortega-Ruiz, 2018) analyzed 143 articles and reported overall mean prevalence rates of 29.6% for involvement in bullying and 20.0% for cyberbullying (without specifying roles). Zych et al. (2016) reviewed 21 empirical studies on cyberbullying in Spain and found overall mean perpetration rates of 24.6% with multi-item scales (14.1% with single-item evaluations) and victimization rates of 26.7% with multi-item scales (10.7% with single-item evaluations). Two reviews of Asian studies found bullying victimization rates from 2% to 66% and perpetration rates from 2% to 34% (Chan & Wong, 2015) in China and victimization rates between 1% and 7.7% in South-East Asian Countries (Sittichai & Smith, 2015).

## Characteristics of Bullies and Cyberbullies

There are many studies that have focused on characteristics of bullies and cyberbullies, and their most important finding is that there is no specific profile of a perpetrator. Even though there are many features that are related to perpetration, there are many children who have these characteristics and are never involved in bullying and there are also many perpetrators without these characteristics. At the same time, there are some trends in different populations that have been well defined and described.

It is worth mentioning that most of the studies on characteristics of children involved in bullying and cyberbullying are cross-sectional in nature. Therefore, relationships among variables have been reported but, in most cases, no causal direction could be established. There are very few prospective longitudinal studies on the topic, but they deserve special attention since they can clar-

ify causal relationships. Both types of studies will be described in this section.

A systematic review of theoretical studies on bullying and cyberbullying (Zych, Ortega-Ruiz, & Del Rey, 2015c) revealed that some meta-analytic reviews found characteristics that are moderately or strongly related to bullying or cyberbullying perpetration. For example, Cook, Williams, Guerra, Kim, and Sadek (2010) synthesized 153 empirical reports on bullying and related variables. They found that perpetrators displayed externalizing behavior, defined as undercontrolled aggressive, defiant and disruptive conduct. Moreover, perpetrators scored low on other-related cognitions that include perspective taking, empathy, and normative beliefs about other people. Perpetrators tended to have negative peer influences, with affiliation to antisocial groups. Other characteristics that were related to bullying perpetration, with smaller effect sizes, were higher internalizing behavior, lower academic performance and perceived negative school climate, lower social problem solving skills or social competence, and peer status together with worse family/home environment and community (Cook et al., 2010).

Another meta-analysis conducted by Gini, Pozzoli, and Hymel (2014) reported that children who were involved in bullying and cyberbullying others scored high on moral disengagement, and this was also found by Kowalski, Giumetti, Schroeder, and Lattanner (2014). Moral disengagement is a mechanism described by Bandura, Barbaranelli, Caprara, and Pastorelli (1996), which consists of disconnecting emotions related to moral actions in some unjust situations. This can occur in people who have good moral standards but justify their immoral behaviors through different possible excuses. In the case of bullying or cyberbullying, a perpetrator could know that hurting other people is immoral, and they could even feel guilty or ashamed after causing damage to certain people, but they would find excuses to justify hurting a particular victim in certain situations. A study with primary school children in Italy and Spain showed that perpetrators scored high on moral disengagement when they imagined bullying other children (Ortega Ruiz,

Sánchez Jiménez, & Menesini, 2002). Moral disengagement also predicted bullying and cyberbullying perpetration in adolescents (Menesini, Nocentini, & Camodeca, 2013).

Mitsopoulou and Giovazolias (2015) synthesized 19 studies on personality traits related to bullying. They found significant overall negative relationships with openness (being open to experiences, emotions and curiosity), agreeableness (friendliness, good relations with others, and a positive vision of society), conscientiousness (self-discipline, planning, and regulation of self-behavior), and affective empathy (experiencing emotions of other people). They also found a positive relationship between bullying and neuroticism (emotional instability and a tendency to experience negative emotions).

Our recent meta-analysis on empathy and callous-unemotional traits in different bullying roles (Zych, Ttofi, & Farrington, 2016) included 53 empirical reports on the topic. Cognitive empathy, defined as a capacity to understand other people's emotions, was lower in bullies than in non-bullies. This negative significant relationship was even stronger in the case of affective empathy (i.e., experiencing the emotional states of others). Callous-unemotional traits, which were described as traits related to psychopathy and characterized by shallow affect, poor emotional life and low empathy, were high in perpetrators. A recent study conducted by Del Rey, Lazuras, et al. (2016) showed that low levels of affective and cognitive empathy predicted bullying and cyberbullying perpetration in different age groups, genders, and nationalities (including Spain and Greece). Similarly, Gómez-Ortiz, Romera Félix, and Ortega-Ruiz (2017) reported that social competence in adolescent bullying perpetrators in Spain was lower than in uninvolved children.

Kljakovic and Hunt (2016) identified and meta-analyzed seven longitudinal or prospective studies on predictors of bullying perpetration. They found that the strongest predictor of perpetration was social problems, defined as having antisocial friends, and social immaturity. Younger age, low achievement and commitment to school, and conduct problems also predicted higher perpetration.

A meta-analysis conducted by Kowalski et al. (2014) pointed out that perpetrators of cyberbullying have more normative beliefs about aggression. Moreover, their frequency of Internet use is high, and they are involved in more online risky behaviors. They tend to be enrolled in schools with a worse school climate and a lower perception of school safety. The researchers also found that perpetrators show more anger, narcissism and lower empathy. Besides being cyberbullies, they are also frequently cyber-victimized.

Baldry et al. (2015) conducted a systematic review on risk factors for involvement in cyberbullying which synthesized 53 empirical studies. They concluded that there were more boys than girls who perpetrated cyberbullying. Perpetrators used more electronic devices, showed lower empathy and higher moral disengagement, and had a tendency to behave in an antisocial and impulsive way. They had lower parental support or supervision and problems in schools. They were also enrolled in schools that are were safe and that did not have a clear anti-bullying policy.

To our knowledge, there are no meta-analyses of longitudinal or prospective research on characteristics of perpetrators of cyberbullying. An empirical study conducted by Hemphill et al. (2012) with Australian children focused on predictors of bullying and cyberbullying perpetration, with a 2-year gap between the measurement points. They reported that children who showed relational aggression tended to perpetrate bullying or cyberbullying. For bullying only, perpetrators were found to have been involved in bullying before (as victims or perpetrators), and had family conflicts and school failure. You and Lim (2016) studied cyberbullying in Korean adolescents, focusing on variables measured at the age 13 that predicted bullying 1 year later. They reported that cyberbullying perpetrators had lower self-control, a longer use of the Internet, higher aggression rates, and involvement in face-to-face bullying.

Taking into account all the studies reviewed in this section, it can be concluded that perpetrators usually show different conduct problems and aggressive behaviors. They might have some problems in controlling their emotions, be affili-

ated to antisocial friends, and be enrolled in schools with a negative climate and low safety. This antisocial peer group might reinforce the aggressive behavior of bullies who achieve status and leadership through violence. Bullies might also have some problems in school (such as low achievement or school failure) and in the family. Overall, their levels of empathy are lower than in their uninvolved peers and they might justify immoral actions through moral disengagement. The frequent and long-term use of electronic devices is common among the perpetrators of cyberbullying.

## Family Influences

The relationship between families and bullying and cyberbullying has been well studied and established (Zych et al., 2015c). When talking about family influences, there are two aspects that need to be taken into account: (1) family characteristics, including parental styles, which act as risk or protective factors for bullying and cyberbullying; (2) The role of families as active educators with regard to school bullying, what to do, and risks associated with the use of the web.

Most studies on the influence of the family on bullying and cyberbullying address the first point. They are also in the tradition of the field of juvenile delinquency, showing in longitudinal studies (Farrington, 1993) how disruptive families are related to bullying and to the onset and persistence of criminal behavior.

Research conducted on the link between bullying/cyberbullying and family factors has found similar patterns to studies of child aggression and school violence (Eron, Huesmann, & Zelli 1991; Garnefski & Okma, 1996) and future delinquency (Farrington, 2004). Although bullying is a type of antisocial behavior, and most bullies desist from becoming delinquents, but most delinquents have past histories of bullying at school. Also, there is an intergenerational transmission of bullying: many boys who were bullies at age 14 tended, at age 32, to have children who were bullies (Farrington, 1993).

According to Olweus (1978), the learning of aggression (based on learning theory) in the family takes place from very early during childhood, and it can persist for three generations. The use of physical punishment and threats by parents influences boys' and girls' aggression and particularly bullying. Parents might teach children aggression from the way that they themselves behave or from the reinforcement they provide for aggressive behaviors. Baldry (2003) showed a significant relationship between being exposed to domestic violence and bullying peers, supporting the intergenerational transmission of violence, or the cycle of violence (Widom & Wilson, 2015).

With regard to parental styles, there is a relationship between bullying and poor family functioning, indicating that many children with behavioral problems in school tend to suffer from poor parenting. What this means is that some parents tend not to support their children and use an *authoritarian* (i.e., very high demands and control, low affection and responsiveness) rather than an *authoritative* style. An authoritative style of parenting (Steinberg, Lamborn, Dornbusch, & Darling, 1992) is considered to be a protective factor against bullying as it implies high acceptance of the child, good supervision, and rule setting, but still granting psychological autonomy (Baldry & Farrington, 2007; Gómez-Ortiz, Romera, & Ortega-Ruiz, 2016).

Baldry and Farrington (1998) found that bullies differed significantly from non-bullies in having punitive and conflicting parents. Non-bullies more often tended to have supportive and authoritative parents who encouraged and valued their children who then, in turn, developed socialization skills that were useful for their social (school) interaction life (Baldry & Farrington, 1998, 2000). These findings have consistently been found both in bullying and cyberbullying from the very early studies (Baldry et al., 2015).

Bowers, Smith, and Binney (1994) reported a significant relationship between child bullying and conflicts and violence among parents and towards children. Bullies were less likely to have a father at home and to live in cohesive families (Berdondini & Smith, 1996). Olweus (1991) showed that bullies were likely to experience

violence and aggression in their own homes and to react to it in an aggressive way.

Some studies showed that victimization is related to less authoritative parenting, less emotional support and less opportunities for the children to speak out for themselves (Smith & Myron-Wilson, 1998). Some victims grow up with the fear of saying what they want and this might increase their vulnerability to be rejected and victimized at school. Also in this case, supportive and encouraging parents tend to be protective factors which counteract negative stressful circumstances.

Baldry and Farrington (2004), in the framework of social learning theory, found that both school bullies and victims, and the bully/victim group, tended to have more conflicting and punitive parents, compared with non-involved children. Supportive parents tend to be associated with lower levels of school victimization. In the review by Ttofi, Bowes, Farrington, and Lösel (2014), family support is a protective factor that helps children who are involved in bullying to interrupt the continuation into a criminal career (Ttofi & Farrington, 2016).

## Parental Influence and Cyberbullying

Makri-Botsari and Karagianni (2014) support the hypothesis that authoritative rather than authoritarian parents are associated with lower levels of cyberbullying. Ortega-Báron, Buelga, and Cava (2016), in Spain, looked at the relationship between cybervictimization and the family environment, and found that high scores on family conflict and poor family cohesion predicted students' involvement in cybervictimization, but the same was not true for cyberbullying. As mentioned, family functioning and relationships with parents play a part in regard to the educational role played by parents in the active supervision of online activities and setting rules about online and cyber activities (Baldry, Farrington, and Sorrentino, 2016).

Parents can play different roles in decreasing or increasing the risks for cyberbullying, as reviewed by Baldry et al. (2015). The willingness

to report online or offline problems to significant adults might also be affected by perceiving parents as excessively involved in the child's own life or as being of support and use (Segrin et al., 2012). Schiffrin, Liss, Miles-McLean, Geary, Erchull, and Tashner (2013) found that parental supervision of online activities was negatively associated with cyberbullying. Parents who are aware of their children's problems might become more concerned and feel that they should be more aware of what is going on and that they should control or supervise their child more carefully. Parent–adolescent relationships associated with interdependence imply the maintenance of an appropriate balance of autonomy and support from family members, particularly parents (Padilla-Walker & Nelson, 2012; Stein et al., 1998). This would include supervising online activities, sharing concerns about online risks, and providing rules about safe Internet use.

Ybarra and Mitchell (2004) found that cyberbullies and cyberbully/victims, compared to students not involved, had poorer emotional bonds with their parents and lower levels of parental monitoring. In fact, 30% of parents of students who were involved as cyberbullies and cyberbully/victims restricted children in their Internet use by blocking software on their home computer, negatively affecting the willingness of children to tell their parents. DeHue, Bolman and Völlink (2008), in their Dutch study on the presence of rules about online activities, reported that more than half of parents set clear rules about their children's frequency of use of the Internet. In 8 out of 10 cases, they reported that they had established rules about what were allowed activities on the Internet, but adults' views about children's involvement in cyberbullying did not correspond to what children reported, clearly indicating that parents did not know much.

Most students do not share their experiences of cyberbullying with their parents because they fear that their parents could restrict their use of the Internet (Juvonen & Gross, 2008). The same trend was reported by Slonje and Smith (2008), with Swedish students who indicated that less than one out of ten students referred to their parents. Smith et al. (2008), in their survey with UK

students aged 7–11, showed that these children were more likely to report school bullying rather than cyberbullying, which could be due to the fear of children that their parents could restrict their online access. The role of parenting in the risk of cyberbullying was researched by Mesch (2009), who found that monitoring the websites children visited was a protective factor against cybervictimization and cyberbullying, supporting the hypothesis that monitoring—if it is not perceived as control—is a protective factor.

Parental support was found to be negatively associated with cyberbullying by Wang et al. (2009). Low rates of reporting to an adult (parent) or willingness to do so was discovered also by Huang and Chou (2010) in their Taiwan junior high school student sample. This percentage is higher in the Holfeld and Grabe (2012) study in the USA, where half of student said that they were willing to report. Studies cannot always be compared in terms of percentages of "willingness to report" to parents because different measures are used.

Floros, Siomos, Fisoun, Dafouli, and Geroukalis (2013) conducted a cross-sectional study in a high school of the island of Kos (Greece) looking at parental practices. They found that secure online practices by parents had a protective effect against cybervictimization but not cyberbullying. Navarro, Serna, Martínez, and Ruiz-Oliva (2013), with their Spanish sample, concluded that some aspects of parental supervision are protective factors: controlling and supervising children's computer use (restrictive mediation) as well as the joint creation of rules about the frequency of Internet use and about what information that children can share online. In China, Zhou, Tang, Tian, Wei, Zhang, and Morrison (2013) reported that the use of parental restrictions was high and that they were positively associated with the risk of cyberbullying but not with the risk of cybervictimization.

Sasson and Mesch (2014), in Israel, reported that parents' restrictive supervision strategies were associated with students' low involvement in cyberbullying, while guidance and non-intervention strategies were not associated with a decreased risk of cyberbullying.

Álvarez-García, Núñez Pérez, Dobarro González, and Rodríguez Pérez (2015), in their Spanish study, identified parental control as a risk factor for cybervictimization, supporting the concept that control, rather than proactive and shared supervision, does not help. Khurana, Bleakley, Jordan, and Romer (2015) in the USA also found mixed results in relation to parental functioning; parental monitoring was a protective factor that reduced youngsters' odds of being cybervictimized, while parental Internet restrictions were not significantly associated with cyber involvement either as cyberbullies or as cybervictims.

Vaala and Bleakley (2015) looked at perceived parental monitoring, parental Internet mediation and Internet behavior that is the use of the Internet to have instant messaging (IM) or chat with friends. They reported that perceived parental monitoring was associated with a decreased use of IM/chat, social networking, video streaming, and multiplayer online videogames. However, parental Internet tracking was associated with more adolescent IM/chat use.

In Italy, Baldry, Sorrentino, and Farrington (2016) found that low parental online supervision and monitoring was a risk factor for cyberbullying, while cybervictims reported higher levels of parental online supervision and monitoring. They suggested that cybervictimization could cause increased monitoring rather than the reverse. In Greece, Kokkinos, Antoniadou, Asdre, and Voulgaridou (2016) reported that students' involvement in both cyberbullying and cybervictimization were negatively associated with parents' rules regarding the content of Internet use; the more that parents set rules, the less that the children reported cyberbullying or cybervictimization.

Özgür (2016) surveyed Turkish students in order to investigate the relationship between Internet parenting style and children's Internet use. They found significant gender differences in parental style, with boys, more than girls, reporting that their parents were laissez-faire, implying that girls were more restricted and more controlled. A recent study by Shin and Lwin (2016) analyzed the role that parents, teachers, and peers' active mediation had in youngsters'

online risky behaviors. They reported that peer mediation was positively associated with students' involvement in online risky behaviors, while parental mediation was not associated with children's decreased online risk behaviors.

Overall, these studies confirm that parents can have a role and that this can be positive in protecting children from being involved in cyberbullying, but it can also be detrimental if parents are perceived as controlling and students refrain from sharing their problems with their parents. The reviews conducted on cyberbullying (Smith & Berkkun, 2017; Zych et al., 2015c) showed that 12% of articles include some information on parents, but more longitudinal studies are needed.

## Instruments Used to Measure Bullying and Cyberbullying

Measuring bullying and cyberbullying has often been problematic. The operationalization of a construct in the social sciences is quite challenging; once there is an agreement on what constitutes bullying and cyberbullying, the next step is what to measure and how to measure it. Whereas there is a relative consensus about what is bullying, this is not always true with regard to cyberbullying. Measurement instruments resemble the definition of the construct. Several instruments have been developed to measure school bullying. These instruments focus on the types of bullying involved (either as victims or perpetrators), the prevalence, and the characteristics of the children who are involved. There is usually a common agreement on what bullying includes: an imbalance of power, repetition in time, and the intention to harm. Regarding the methods used, children may self-report about their experiences, or others (teachers or peers) may report, or there may be systematic observation. These methods all have advantages and disadvantages, and ideally a combination of methods should be used to build up the most accurate picture of what is taking place (Baldry, 1998).

The instrument that is most frequently used for school bullying is the Olweus Bully/Victim questionnaire (Olweus, 1993) which is a well recognized instrument, also adapted for cross-national surveys (Fonzi, 1997) such as those carried out by HBSC (Currie et al., 2012). Studies on cyberbullying use specific instruments to evaluate this form of aggressive behavior (Berne et al., 2013). Because of its particular characteristics (Baldry et al., 2015; Nocentini et al., 2010) it is studied according to either the ICT means used to bully (e.g., smartphone, social networks, video, emails, instant messaging) or according to the types of cyberbullying committed (Willard, 2007).

For cyberbullying, as shown in Table 1, there are many instruments, not always well described, used in mostly just one or two studies, and many of them have shortcomings. Systematic reviews of 44 cyberbullying instruments conducted by Berne et al. (2013) and Frisén et al. (2013) found that many did not give adequate definitions (only 13/44 mentioned an imbalance of power) and few reported reliability or validity. Reference periods and cutoff points varied (e.g., once or twice or at least sometimes). Similar findings were described by Vivolo-Kantor, Martell, Holland, and Westby (2014).

## Long-Term Outcomes for the Perpetrators

From the very beginning of the research on bullying and cyberbullying, scientists have warned about the extremely damaging consequences of this kind of violence. Nevertheless, until recently, the vast majority of research has been cross-sectional. Therefore, distinguishing causes from consequences is extremely difficult. Nowadays, prospective longitudinal studies on the topic are being published, and it is now confirmed that involvement in any bullying role has long-term harmful effects. Given that the number of prospective longitudinal studies is still small, this chapter will include the most important findings from cross-sectional studies and then some of the long-term outcomes of perpetration will be described in this section. We will focus mainly on

**Table 1** Assessment instruments for cyberbullying

| Instrument | Study | | | No of items | Reliability |
|---|---|---|---|---|---|
| | N | Age | Method | | |
| Greek cyber-bullying/ victimization experiences questionnaire (CBVEQ-G) Antoniadou et al. (2016) Greece | 1097 | 12–17 | Survey | 12 for CB- 12 for CV | |
| European Cyberbullying Intervention Project Questionnaire Del Rey et al. (2015) Spain, Germany, Italy, Poland, United Kingdom, and Greece | 5679 | 11–23 | Survey | 11 for CB- 11 for CV | CB $\alpha$ = 0.93 CV $\alpha$ = 0.97 |
| Multidimensional Offline and Online Peer Victimization Scale (MOOPV) Sumter et al. (2015) The Netherlands | 1124 | 9–18 | Survey | 5 for CB 5 for CV | CB $\alpha$ = 0.82 CV $\alpha$ = 0.88 |
| Cyberbullying Test Garaigordobil (2015) Spain | 3026 | 12–18 | Survey | 15 for CB 15 for CV | CB $\alpha$ = 0.91 CV $\alpha$ = 0.82 |
| Cyberbullying Experiences Survey (CES) Doane et al. (2013) USA | 638 | $M$ = 20.8, SD = 4.8 | Survey | 20 for CB- 21 for CV | All CB items $\alpha$ > 0.70 All CV items $\alpha$ > 0.70 |
| Cyberbullying Scale (CS) Menesini et al. (2011) Italy | 1092 | 11–18 | Survey | 9 for CB 9 for CV | Not reported |
| Cyber victim and bullying scale Cetin et al. (2011) Turkey | 404 | 14–18 | Survey | 22 for CB 22 for CV | CB $\alpha$ = 0.89 CV $\alpha$ = 0.89 |
| Cyberbullying Victmization Scale Hay & Meldrum (2010) USA | 426 | 10–21 | Survey | 3 for CV | Total items $\alpha$ = 0.80 |
| Cyberbullying questionnaire Ang & Goh (2010) Singapore | 396 | 12–18 | Survey | 9 for CB | CB $\alpha$ = 0.83 |
| Revised cyberbullying Inventory Topcu & Erdur-Baker (2010) Turkey | 339 | 13–21 | Survey | 14 for CB 14 for CV | CB $\alpha$ = 0.82 CV $\alpha$ = 0.75 |
| Cyberbullying Questionnaire (CBQ) Calvete et al. (2010) Spain | 1431 | 12–17 | Survey | 16 for CB | CB $\alpha$ = 0.96 |
| Growing Up with Media Ybarra et al. (2007) USA | 1588 | 10–15 | Survey | 3 for victim of Internet harrassment | CV $\alpha$ = 0.79 |

meta-analytic findings that provide a global vision by integrating as many studies as possible.

Bullying became a popular research topic after a series of suicides in different parts of the world that were attributed to bullying. Holt et al. (2015) reviewed and meta-analyzed 47 studies on the relationship between involvement in different bullying roles and suicidal behavior and ideation. Bullying perpetrators (and also victims and bully-victims) were found to have high risk of suicidal ideation and an even higher risk of suicidal behavior when compared to uninvolved children.

Many types of antisocial behavior are related to bullying perpetration, including weapon carrying. A meta-analysis of 24 empirical studies (van Geel, Vedder, & Tanilon, 2014) with different designs (including cross-sectional, cohort, and longitudinal) found that, overall, bullying perpetrators (and also victims and bully-victims) were more likely than uninvolved children to carry weapons. No difference was found between studies from the USA and other geographic areas.

In their meta-analysis of cross-sectional studies on cyberbullying, Kowalski et al. (2014) found that cyberbullying perpetration was related to drug and alcohol use and that the effect size of this relationship was relatively large. Cyberbullying perpetration was less strongly related to higher levels of anxiety and depression and lower levels of life satisfaction and self-esteem.

Ttofi, Farrington, Lösel, Crago, and Theodorakis (2016) conducted a meta-analysis on bullying and drug use later in life. They included nine prospective longitudinal studies with large samples that reported on this relationship for bullying perpetrators an average of 9 years after the bullying. They found that perpetrators were about twice as likely as their uninvolved peers to use drugs later in life. Although this effect was substantially reduced after controlling for other factors such as family variables, academic performance, and conduct problems, it was still significant. The relationship between bullying perpetration and drug use

was also found in a meta-analysis of cross-sectional studies where the effect size was strong (Valdebenito, Ttofi, & Eisner, 2015).

Another meta-analysis conducted by Ttofi, Farrington, and Lösel (2012) with 15 studies on bullying perpetration and violence later in life showed that there was a strong relationship between the two. With an average of 6 years between the measurement points, it was found that bullies displayed more violence than their non-involved peers. After controlling for other factors, perpetration increased the risk of violence by about two thirds. This result probably reflects the persistence of an underlying aggressive personality.

Prospective longitudinal studies meta-analyzed by Ttofi, Farrington, Lösel, and Loeber (2011) focused on the later offending of children who bullied others during their school years. Based on 28 empirical studies with up to 11 years between the measurement points, it was found that the probability of offending was much higher for bullies than for non-bullies. After controlling for other factors, this relationship was slightly weaker but still strong and significant. When bullying was measured in younger children, the relationship with offending was stronger, which might suggest that early onset increases the risk. Results from the Cambridge Study in Delinquent Development showed that bullying perpetration was especially predictive of convictions for violent crimes such as assault, robbery, or possessing an offensive weapon (Farrington & Ttofi, 2011).

The studies described in this section showed that bullying perpetration is followed by very damaging long-term outcomes. The same is true for bullying victimization (see e.g., Ttofi, Farrington, Lösel, & Loeber, 2011). Nevertheless, children who bully others are not necessarily condemned to become delinquents or drug users. On the contrary, as reported in a systematic review conducted by Ttofi et al. (2014), it is possible to interrupt the continuity from school bullying to later problems. Some of the factors that interrupted this continuity were good social skills, low social alienation, having prosocial

friends, and living in a neighborhood with positive features. Having good academic performance and good relationships with teachers were also important. There were also many family factors that interrupted the relationship between bullying perpetration and damaging consequences later in life, including a stable family structure, parental warmth, and good relationships with parents and siblings.

## Interventions

Farrington and Ttofi (2009) carried out the most extensive systematic review of the effectiveness of bullying prevention programs. Their meta-analysis reported an overall decrease in perpetration of about 20–23% for anti-bullying programs. The overall findings that emerged from this review are that the best results are obtained with longer and more intensive programs with multiple components, including intervention with parents and teachers, a whole-school policy, increased supervision, classroom management and rules, together with disciplinary methods (Ttofi & Farrington, 2011). These are optimistic findings, and choosing the right program is crucial in successfully preventing bullying.

The first extensive bullying intervention program was developed, and its efficacy was tested, in Scandinavia in the 1970s. What emerged from the meta-analysis by Farrington and Ttofi (2009) is that what works in reducing school bullying or in changing attitudes is the combination of components in the "whole community approach" or the whole school approach. Students, teachers, parents, and heads of schools are all involved in providing consistent tools and procedures to increase awareness, empathy, bystanders' skills, and changes of social group's norms (Ttofi, Farrington, & Baldry, 2008).

The first and most established program that resulted in decreased bullying among students is the Olweus Bullying Prevention Program (OBPP), which was developed in Norway (Olweus, 1993). Menesini Codecasa, Benelli, and Cowie (2003) in Italy assessed the impact of

a peer support model that aimed to increase students' capacity to support victims, and to promote bystanders' involvement. Results showed a significant effect indicating that the pro-bully and bystanders' roles remained stable or decreased among students who received the intervention, while they increased among students in the control group.

Another well-established program that proved to be effective is the Social Skills Group Intervention (S.S. GRIN, DeRosier & Marcus, 2005) in the US. Students receiving the intervention showed an increase in self-esteem and self-efficacy and a decrease in antisocial affiliations.

Another program that significantly decreased self-reported victimization and self-reported bullying and pro-bullying attitudes is the Kiusaamista Vastaan (KiVa) program in Finland (Kärnä et al., 2011; Salmivalli Kärnä, & Poskiparta, 2011). We also developed, and tested in a randomized controlled trial, the "Bulli e Pupe" program in Italy (Baldry & Farrington, 2004), although the results were more promising for victimization than for bullying.

Ortega, Del Rey, and Mora-Merchán (2004), in Spain, used a program called "*SAVE*" that addressed school bullying from an ecological approach and interpersonal positive relationships. They reported results indicating a decrease in perceived victimization. No significant group differences were found with regard to perpetration.

As was the case for bullying, cyberbullying research moved from focusing attention on the definition, prevalence, nature and impact, to trying to identify and assess good practices in evidence-based approaches in order to inform interventions and public policies (Hinduja & Patchin, 2012; Mishna, Cook, Saini, Wu, & MacFadden, 2009). Because research on the prevalence and consequences of cyberbullying has showed how it (negatively) impacts the lives of young people, intervention programs have been designed and implemented and now tested. Systematic reviews or meta-analysis are still limited including, for example, the one by Mishna et al. (2009) and the work of Tokunaga (2010).

Unfortunately, there are only a very limited number of published articles with methodologically sound evaluations assessing which "anticyberbullying" programs work, making it difficult to establish what may be effective in preventing and/or reducing cyberbullying. A review of 13 intervention models using ICTs was conducted by Nocentini, Zambuto, and Menesini (2015). These authors found that only four of these programs had a satisfactory outcome. Recently, however, several additional papers, all gathered in a special issue of *Aggressive Behavior*, were published, showing promising results. Some of these programs are summarized in Table 2.

Blaya (2015) completed a systematic review of school-based interventions for cyberbullying including some pretest and posttest protocols for the 2002–2012 period. The findings showed that only ten interventions corresponded to the selection criteria, among which four were in Great Britain, three in North America, one in Germany, one in Spain, and one in Italy. Mishna et al. (2009) identified three school-based interventions that were effective in increasing the knowledge of the participants on the risks and safety issues: I-SAFE (www.isafe.org), The Missing Program, and HAHASO (*Help, Assert, Humor, Avoid, Self-Talk, Own it*). I-Safe (Chibnall, Wallace, Leicht, & Lunghofer, 2006) positively impacted on the young people's attitudes to safety: the youths declared that they would wait longer before communicating personal data online to someone who they did not know. HAHASO targeted bullying but with some components relating to cyberbullying. The evaluation did not show any significant effect on cyberbullying, which may be explained by the small size of the sample (Salvatore, 2006). The Missing Program (Crombie & Trineer, 2003), which included the participation of young people and their parents and teachers, was based on an online interactive game for 11- to 13-year-olds who became policemen and had to solve a mystery. The objective was to get the young people to understand how online predators act. The results showed that, after the exercise, participants published less personal data online (city, age, gen-

der), but that the exercise had no effect on the publication of names, schools, or email addresses, or on contacting strangers.

Several other studies in England reported on the evaluation of similar interventions for bullying, cyberbullying, and Internet safety and showed some significant effects on the online risk awareness and satisfaction of the participants: "Let's Fight It Together" from the Childnet International network and "Exposed": CEOP http://www.thinkuknow.co.uk/, the mentoring program Beatbullying (http://www.cybermentors.org.uk/), and the Safer School Partnership[1] (http://www.justice.gov.uk/youth-justice/prevention/safer-school-partnerships) (Tangen & Campbell, 2010; Thompson, Robinson, & Smith, 2012). In Germany, the MedienHelden (Schultze-Krumbholz, Wölfer, Jäkel, Zagorscak, & Scheithauer, 2012) was a school-based program whose objectives were to provide participants with online social skills and increase their awareness of online safety, and also to teach them how to support victims. It included *saynets*, the training of parents and teachers, and an external monitoring of the intervention. The evaluation showed evidence of effectiveness, with an improvement in participants' social skills, self-esteem, empathy, and mental health, as well as a decrease in cyberbullying.

The Spanish intervention "ConRed Cyberbullying Prevention Program" consisted of eight weekly training sessions addressed to students, teachers, and parents, and was coordinated by external experts. It not only increased awareness of Internet safety issues but also decreased students' involvement in cyberbullying, and Internet addiction for both victims and perpetrators (Ortega-Ruiz et al., 2012).

Even though some programs are effective in increasing knowledge about risks related to the Internet, behaviors do not always change significantly. In Italy, Palladino, Nocentini, and Menesini (2012) designed the "Noncadiamointrappola!" program aimed to reduce bullying and cyberbullying and to increase peer support and coping strategies. It included

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[1] Partenariat pour des Ecoles plus Sûres.

**Table 2** Effective programs for cyberbullying

| Anti-cyberbullying program | Type of intervention | Research design | Objectives | Results achieved |
|---|---|---|---|---|
| i-Safe: cyber safety program Chibnall et al. (2006) USA | School-based | Pretest, posttest, control group design | Assess the effectiveness of Internet safety education on children knowledge and behavior | Students reported an increased Internet safety knowledge. |
| Beatbullying cybermentors Banerjee et al. (2010) Thompson and Smith (2011) U.K. | School-based | Pretest, posttest, control group design | Assess the effectiveness of a peer mentoring program. Cybermentors were trained to listen, mentor, and support peers in and out of the school (online/virtual support) | CyberMentors were effective in raising students' awareness of bullying and cyberbullying in schools and students' willingness to report cybervictimization and victimization incidents increased. |
| Kiusaamista Vastaan (KiVa) Salmivalli et al. (2011) Finland | Whole/community-based | Pretest, posttest, randomized, controlled design | Assess the effectiveness of the KiVa program on different types of victimization including cybervictimization | Results indicated that the program is successful also in reducing cybervictimization |
| Noncadiamointrappola "Let's not fall in a trap" Menesini et al. (2012) Italy | School-based | Pretest, posttest, control group design Follow-up after 6 months | Assess the effectiveness of a peer-led approach to prevent and reduce bullying and cyberbullying and victimization and cyber victimization | Students receiving intervention showed significant decreases in both cyberbullying and cybervictimization |
| ConRed: cyberbullying prevention program Ortega-Ruiz et al. (2012) Del Rey, Casas, and Ortega (2016) Spain | Whole/community-based | Pretest, posttest, control group design | Assess the impact of the implemented program on cyberbullying and cybervictimization rates | Students receiving intervention showed significant decreases in both cyberbullying and cybervictimizazion involvement. |
| Kiusaamista Vastaan (KiVa) Wilford et al. (2013) Finland | Whole/community-based | Pretest, posttest, randomized, controlled design | Investigates the effectiveness of the KiVa Antibullying Program on the frequency of cyberbullying and cybervictimization | Students receiving the intervention reported lower frequencies of cybervictimization at posttest than students in the control group, while the effect of condition on cyberbullying was moderated by age. |

**Table 2** (continued)

| Anti-cyberbullying program | Type of intervention | Research design | Objectives | Results achieved |
|---|---|---|---|---|
| Medienhelden "media heroes" Wölfer et al. (2014) Germany | School-based | Pretest, posttest, randomized, controlled design | Assess the effectiveness of a theory-based, built on the theory of planned behavior, cyberbullying prevention program | Cyberbullying and cybervictimization behaviors decreased in classes that received the intervention. |
| Cyber friendly schools project Cross et al., 2015 Australia | Whole/community-based | Pretest, posttest, randomized, controlled design Follow-up after 12 months | Assess the longitudinal impact of the implemented program on cyberbullying and cybervictimization incidents prevention and intervention | Results indicated a significant decreases in both cyberbullying and cybervictimization from pretest and posttest, however no differences were found between the intervention and the control group. |

the active participation of teachers in classroom activities, such as the creation of video clips or posters, participation in a forum, and a Facebook group (http://www.squarciagola.net/cyberbullismo/). The evaluation showed a significant increase in coping strategies and conflict resolution as well as a decrease in victimization.

Few interventions contributed to a decrease in the incidence rate of cyber-victimization. As Perren et al. (2012) and König, Gollwitzer, and Steffgen (2010) showed, cyberbullying has some characteristics that are similar to bullying, and, given the overlap between school bullying and cyberbullying, systemic approaches that aim to improve the overall school climate and that include the genuine participation of the whole school community have the most potential to have a positive impact on reducing cyberbullying. Interventions that showed some effectiveness included the participation of teachers and parents and the active participation of the young people. These results accord with previous findings on the evaluation of anti-bullying programs (Baldry & Farrington, 2004; Juvonen & Gross, 2008; Ttofi & Farrington, 2011; Ttofi, Farrington, & Baldry, 2008; Wilson & Lipsey, 2007). The expansion of cyberbullying, related to the fact that most young people use the Internet, led to an increased awareness of the need to develop policies and programs to prevent cyberbullying.

It can be concluded that there is a need for more research to assess the efficacy of methods of reducing cyberbullying, taking into account the specific characteristics of such behaviors, and the fact that cyberbullying often overlaps with cybervictimization. Also, programs should address both bullying and cyberbullying as part of a general joint program. The approach of Ang (2015), showing how both general empathy training and modifying beliefs supportive of normative beliefs about aggression, provide most promising results. Also, specific guidelines for Internet behavior, strong and positive parent–adolescent bonds, and training for teachers are other components that should be included in effective intervention programs. Intervention programs should also try to investigate which components are the most essential and effective. In order to reduce anxiety and distress among young people, it is very important to reduce bullying and cyberbullying.

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# Child and Adolescent Homicide

Dewey G. Cornell and Marisa Malone

Murders committed by children invariably arouse feelings of shock and dismay, and elicit probing questions about the social, psychological, or even biological factors that might account for such a tragic phenomenon. Yet efforts to characterize "*the* adolescent murderer" or "*the* child killer" are futile in light of the diversity of homicidal youth, which it must be emphasized is a legal rather than a scientific category. Apart from the victim's fatality and the youthfulness of the perpetrator, homicides by juveniles defy a single common explanation. Consider the following case examples:

*17-year-old Michael* goes cruising with friends through a poor urban neighborhood, looking for persons to rob. It is winter and the youth needs a new coat. They confront a young man wearing an attractive leather coat. When the man refuses to give up his coat, a struggle ensues, and Michael pulls out a pistol and shoots him.

*15-year-old Anna* has been sexually molested and forcibly raped by her stepfather on a regular basis for nearly a year. Her mother has been physically and emotionally abusive for

as long as she can remember. One night after an argument with her parents, Anna creeps into their bedroom and shoots them both in their sleep.

*16-year-old Travis* hears voices telling him to "kill the devil" and fatally shoots a neighbor.

It is difficult to imagine a psychosocial profile that would place Michael, Anna, and Travis under a common explanatory umbrella. Their circumstances, motives, and behaviors are diverse, but their actions are united by the common fatal outcome of each of their victims. Were it not for the legal categorization of these behaviors as murder, it is unlikely that behavioral scientists would make an effort to find underlying common factors in their actions, or even that they would choose to describe them in the same book chapter. Michael is much more like the thousands of teenage robbers who never kill anyone than he is like the girl who killed her parents or the boy who molested a young child. Moreover, homicides by youth are not readily distinguishable from homicides by adults, so that the juvenile–adult distinction in the law imposes an unnatural boundary across a developmental continuum.

Nevertheless, appropriately conceptualized, study of homicide by children and adolescents can advance understanding of the circumstances and psychological conditions under which juveniles as well as young adults will engage in lethal or potentially lethal acts of violence. Study of

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juvenile homicide represents a compelling means of contributing to the understanding of juvenile violence, and ultimately, larger efforts to understand human violence and aggression.

A critical and perplexing problem is to understand the decision-making process that leads to violent behavior. An enraged youth might well act impulsively with little forethought, but all youth experience feelings of anger and rage, and may contemplate some form of violent response. What distinguishes youth who act upon their homicidal rage from those who consider violence, but choose some alternative? Are there differences in the nature and quality of the young person's anger, or decision-making abilities in a frustrated state? Or are the differences merely a matter of circumstance, such as the ready availability of a weapon or peer encouragement during a moment of crisis?

Perhaps most troubling are the stark cases of premeditated murder wherein the youth considered the possibility of murder for days or weeks before taking action. Here the decision-making process presents multiple opportunities for more adaptive outcomes. Cognitively, the youth might generate more benign alternatives to violence. Affectively, he or she might experience prohibitory feelings of empathy and concern for the victim. From a deterrence perspective, the youth might reject a course of action so likely to lead to arrest, public shame, and years of imprisonment. The variations across cases underscore the observation that homicide is not a disease or a mental disorder with a specific etiology and a recommended course of treatment, but an extreme outcome reached from different pathways. This chapter will describe some of the main pathways to homicidal violence and the psychological deficits, social influences, and stressful circumstances that shape the terrain.

## Historical Background

Juvenile homicide has long been the subject of case reports and descriptive studies based on small clinical samples (e.g., Bender, Keiser, & Schilder, 1937; Duncan, 2002; Myers, 1994;

Stearns, 1957). Not surprisingly, clinicians in psychiatric settings (Lewis, Shanok, Grant, & Ritvo, 1983; Pfeffer, 1980; Sendi & Blomgren, 1975) have emphasized the presence of major psychopathology while clinicians in correctional or forensic settings (Yates, Beutler, & Crago, 1984; Zenoff & Zients, 1979) have drawn attention to personality disorders or character problems. Historically, theorists have favored explanatory factors that seem commensurate with the severity and seriousness of the juvenile's crime—schizophrenia, brain damage, dissociative conditions, severe sexual and/or physical abuse (see reviews by Adams, 1974; Benedek & Cornell, 1989; Ewing, 1990). Certainly there is clinical evidence to support these factors in some cases, but no profile encompasses the full range of youthful homicide cases.

There is ample documentation of the diversity of juvenile homicide offenders (Benedek & Cornell, 1989; Gerard, Jackson, Chou, Whitfield, & Browne, 2014; Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002). More recent studies have made use of national databases or records drawn from regional catchment areas that are less vulnerable to selection bias (Cornell, 1990, 1993; Heide, Roe-Sepowitz, Solomon, & Chan, 2012; Loper & Cornell, 1996). Not coincidentally, there has been more attention directed to distinguishing among groups of juvenile homicide offenders and identifying developmental pathways, personality profiles, and environmental factors that increase the risk of violent outcomes, as emphasized in this chapter. Major points are illustrated with case examples of youth evaluated by the author (Cornell).

## Epidemiology

Murder, more technically termed "criminal homicide," can be defined as the willful killing of one human being by another, excluding deaths caused by negligence, accident, or legally justifiable actions such as self-defense (Federal Bureau of Investigation, 2014). Epidemiological knowledge of juvenile homicide is based primarily upon arrest statistics, especially the FBI's annual

Uniform Crime Reports and Supplemental Homicide Reports. Arrest statistics have some well-known limitations: they represent only persons apprehended for a crime and they lack clinical and circumstantial information. In 2013, approximately 64% of known murders were cleared by an arrest, compared to about 58% of aggravated assaults, 40% of forcible rapes, and just 29% of robberies (FBI, 2014). Although juvenile homicide garners great public attention, the overwhelming majority of homicides are committed by adults, and the most dangerous age period for homicidal violence occurs in early adulthood—the late teens and early 20s. For example, in 2013, over 93% of the 9458 identified homicide perpetrators were adults (FBI, 2014). Most of the adult offenders were young; nearly 40% were between the ages of 18 and 24, and 56% were between 18 and 29. The frequency of homicide begins to climb in the early teens, peaks in the early 20s, and declines sharply thereafter (Wintemute, 2015).

## Juvenile Homicide Trends

The USA experienced a dramatic surge in juvenile violent crime from 1985 to 1994 when juvenile courts saw a 53% increase in robbery, a 134% increase in aggravated assault, and a 144% increase in homicide (Howell, 1997). The increase in juvenile violent crime has been attributed to the development of the crack cocaine drug market, the growth of gangs, and the increased availability of more lethal handguns (Fryer Jr., Heaton, Levitt, & Murphy, 2013; Levitt, 2004; Wintemute, 2000; Zimring, 2013).

Cornell (1993) found that the 162% increase in juvenile homicide from 1984 to 1991 was almost entirely an increase in deaths by firearms, especially handguns. This trend was not found for older age groups; the early 1990s brought no substantial increase in firearm homicides in individuals 25 and older (Wintemute, 2000). The increase in firearm homicides is closely related to the increase in pistol production and the shift away from revolvers during this time. Pistols, or semiautomatic handguns, are less expensive,

have larger ammunition capacities, and are more lethal than revolvers (Wintemute, 2000).

Due to concerns about the rising juvenile crime rate and the increasing juvenile population, criminologists predicted a surge in heinous crimes by young "superpredators" (Zimring, 2013). These predictions helped stimulate a wave of juvenile justice reform that increased the transfer of juveniles to adult court and placed more juveniles in adult prisons. More broadly, state and federal laws increased prison sentences, instituted mandatory minimum sentences, and limited or abolished parole (OJJDP, 2011; Torbet et al., 1996). However, most of these changes were instituted by legislators who were unaware that the crime rate had already started to fall. Contrary to expert predictions, the juvenile violent crime rate had already peaked in 1994 and declined dramatically over the next 5 years, reaching a 30-year low (Zimring, 2007). No subgroup of youth was identified as super-predators, and the super-predator theory was rejected as a myth (OJJDP, 1999; Zimring, 2013).

From 1992 to 1995, 48 states, including the District of Columbia, enacted laws that substantially increased punishment for violent juvenile offenders (Torbet et al., 1996). Research on the timing and impact of these new laws found that they did not contribute to the decline in juvenile crime and may have had the opposite effect (Howell et al., 2013; Redding, 2010). For instance, juveniles who were tried and convicted in adult courts for violent crimes had an increased likelihood for reoffending after release in comparison to youth with similar offenses who were placed in juvenile facilities (Redding, 2010). Tough laws intended to encourage general deterrence seem to have little impact on juveniles, who are either unaware of the laws or do not think they will be applied to themselves (Redding, 2010).

Why did the juvenile violent crime rate drop so dramatically in the 1990s if increased punishments were ineffective? There is no definitive answer, but many authorities point to the decline in the crack cocaine market and an associated decline in gang-related violence (Johnson, Golub, & Dunlap, 2000; Roeder, Eisen, & Bowling,

2015). In addition, there was a substantial increase in the number of police officers and a shift toward community-oriented policing (Levitt, 2004; OJJDP, Office of Juvenile Justice and Delinquency Prevention, 1999; Wintemute, 2000). Some police jurisdictions adopted innovative strategies that may have contributed to the drop in crime. The evidence is inconclusive whether the widely acclaimed "broken windows" approach, in which police focused efforts on low-level crimes such as vandalism in order to deter more serious crime (Wilson & Kelling, 1982), was effective (Weisburd, Hinkle, Braga, & Wooditch, 2015). There is somewhat stronger evidence that the Boston "ceasefire" program successfully lowered the juvenile homicide rate by targeting gun traffickers known to supply youth with firearms and by delivering direct and explicit messages to gang members that future violence "would evoke an immediate and intense response" (Braga, Hureau, & Papachristos, 2014; Braga & Weisburd, 2015). The Boston program spurred similar efforts in other cities and led to the development of focused deterrence or "lever pulling" programs. In brief, these programs reach out to high-risk groups (e.g., known gang members) with a two-pronged intervention: On the one hand, they notify these groups that there will be especially tough prosecution for certain offenses, such as providing handguns to youth or dealing crack, and, on the other hand, they offer support services such as employment assistance, counseling, and educational programs that give individuals an alternative to criminal activity (Braga & Weisburd, 2015). There is evidence that other efforts to reduce juvenile violence are effective, such as school-based counseling and social skills programs (Durlak, Weissberg, & Pachan, 2010; Wilson & Lipsey, 2007) and summer employment (Heller, 2014).

## Offender Pathways

A series of studies demonstrated the viability of sorting juvenile homicide offenders into three groups or pathways: crime, and conflict, and psychotic offenders (Benedek & Cornell, 1989; Cornell, Benedek, & Benedek, 1987). It may be preferable to describe these patterns as developmental pathways rather than distinct groups. A pathway implies both characteristics of the offender and environmental influences that interact over time so that violence is conceived as a process rather than a behavioral trait. The most common pathway is traversed by crime-motivated offenders who commit homicides in the course of some other criminal activity, such as a robbery or burglary, rape, drug deal, or gang-related dispute. In contrast, homicide offenders on a conflict pathway typically kill friends or family members in the context of an ongoing dispute or conflict. Their cases are less common, but generate extensive news media coverage. Lastly, a small group of psychotic offenders commit homicides under the influence of delusions and hallucinations. Offenders on these three pathways differ in the circumstances of their offense as well as their prior adjustment, including previous delinquency and violence, substance abuse, family problems, and school adjustment. This typology was developed with a sample of 72 adolescents charged with murder in Michigan (Cornell et al., 1987), supported by a second study of 71 juveniles convicted of murder in Virginia (Cornell, 1990) and replicated by an independent researcher (Toupin, 1993) in a sample of 63 Canadian adolescent homicide offenders.

Crime-related homicides are acts of proactive aggression carried out for instrumental purposes that can be distinguished from reactive aggression carried out in anger out of frustration (Berkowitz, 1993; Cornell et al., 1996). Crime-related homicidal aggression is a means of achieving a goal such as robbery or rape. These offenders tend to have a significant history of prior delinquent activity, most notably stealing and fighting. They often have abused multiple substances, especially alcohol and marijuana, with an early (often preteen) age of onset. They have a history of poor school adjustment and may no longer be attending school by the time of the offense (Cornell et al., 1987).

The MMPI profiles of crime pathway youth typically contain high elevations on multiple clinical scales, most frequently scales 1, 6, 7, and

8 (Cornell, Miller, & Benedek, 1988). Their profiles do not differ substantially from those of nonviolent, serious juvenile offenders, but they are significantly elevated in comparison to the conflict group, particularly on scales F, 1, 3, and 8. The Rorschach protocols of crime pathway youth are noteworthy for their sparse content and the primitive quality of their human responses, which generally indicate a low level of object relations or interpersonal maturity, often with poor form quality and in some cases depicting a victim of aggression (Greco & Cornell, 1992).

Conflict-related homicide involves reactive aggression and is motivated by hostility rather than instrumental goals. The unexpected violence of these offenders may seem surprising and out of character to others. Offenders on the conflict pathway are less likely than those on a crime pathway to have a history of prior criminal activity, although some have a history of petty theft or minor fights. Their substance use, if present, is more limited and consistent with that of their non-homicidal peers. Socially, these youth are often described as shy, introverted, and especially sensitive to insult or humiliation. Their infrequent expression of anger suggests a pattern of overcontrolled hostility. They generally have an adequate school adjustment, and some were regarded as very good students (Cornell et al., 1987).

Although some authors (Lewis et al., 1988; Sendi & Blomgren, 1975) have emphasized the role of psychotic symptoms in juvenile homicide cases, the preponderance of studies demonstrates that only a small group of offenders, about 6% or less, have psychotic disorders (Ewing, 1990; Meloy, Hempel, Mohandie, Shiva, & Gray, 2001). Due to the low prevalence of psychotic homicide offenders, some studies only classify offenders into the conflict and crime groups (e.g., Heide et al., 2012; Loper & Cornell, 1996; Sellers & Heide, 2012).

The three juvenile homicide pathways can be further subdivided. Within the crime pathway there may be critical differences between youth who participate in gang-related acts of violence and those who act more independently (Ewing, 1990; Trulson, Caudill, Haerle, & DeLisi, 2012).

Myers (1994) contended that sexual homicide demands separate attention. The conflict pathway in particular contains some distinctive subgroups that are described below.

## Female Homicide Offenders

Female juveniles commit fewer than 1% of violent crimes and homicides (FBI, 2014); yet their actions often draw substantial media attention and public interest. In 2013, only 35 of the 595 juveniles arrested for homicide were females. Girls are less likely to use a firearm and more likely to use a knife than males (Heide et al., 2012; Loper & Cornell, 1996). Many homicides committed by girls are often associated with an interpersonal conflict with the victim, whereas boys are more likely to commit crime-related offenses, such as robbery. Girls are more likely to kill family members than strangers, and boys demonstrate the opposite trend (Heide et al., 2012; Loper & Cornell, 1996; Roe-Sepowitz, 2009). Girls are more likely than boys to kill other girls and intimate partners (Heide et al., 2012). Finally, girls are more likely to kill younger victims; about 20% of girls' victims are under the age of 4, in contrast to fewer than 2% of boys' victims (Heide et al., 2012; Loper & Cornell, 1996). Such offenses may involve girls who are frustrated by caretaking responsibilities, either as mothers or babysitters to young children. Other common offenses involve girls aggressing against abusive parents or boyfriends.

## Parricide

Parricide is the act of killing parents or close relatives. The typical parricide offender acts in response to a long pattern of parental abuse (Buyuk, Kurnaz, Eke, Ankarali, & Oral, 2011; Heide, 1992, 1994; Mones, 1991) and thus implies a conflict pathway. Extensive physical abuse need not be present, although often it is threatened and may be reflected in milder forms of corporal punishment and by slapping and pushing. Sexual abuse may be easily overlooked, often because

the youth is unable to overcome feelings of shame and guilt to acknowledge the abuse and because the abuser may have a flawless reputation that casts doubt on any allegations (Mones, 1991). Although most parricide offenders follow the conflict pathway (Heide, 1992; Heide & Petee, 2007; Mones, 1991), there are some cases of youth who have killed family members for monetary gain associated with property inheritance or life insurance, so that both instrumental and hostile motives are present.

In many cases, the parricidal youth has experienced prolonged and consistent emotional abuse in the form of repetitive derogatory and rancorous remarks (Benedek & Cornell, 1989; Ewing, 1990; Heide, 1992; Malmquist, 2010; Mones, 1991). The pejorative and malicious quality of verbal abuse has a devastating effect on the youth's self-image and fuels a deep and abiding resentment. The offender's abusive parent tends to be a controlling and dominating individual who restricts the youth from typical adolescent activities and privileges (Heide, 1992; Mones, 1991; Post, 1982). Sometimes the conflict precipitating the homicide concerns a relatively minor matter of driving the family car or attending a social event. The offense itself may not take place during the heat of an argument; the youth may act in anticipation of a disciplinary confrontation or in order to free himself or herself from the abusive situation. Ironically, the juveniles most frightened and intimidated by their abusers are consequently more likely to ambush their victims and therefore to be prosecuted for the more serious charge of first degree murder.

## Preadolescents

Homicide committed by preteenage children is rare. National arrest statistics indicate that 14 children under the age of 13 were arrested for murder in 2013, including only three under the age of 9, (FBI, 2014). These numbers include children who merely participated in homicides committed by a group or carried out actions at the direction of older youth. It is questionable whether young children adequately comprehend

the permanency of death or the gravity of their aggressive intentions. Their actions chiefly represent unintended tragic outcomes of acts of aggression expressing their frustration and anger, and are meant to hurt rather than kill their victims. Such children usually kill a younger child in the course of an argument that escalates into a fatal act of rage. Several case reports (Carek & Watson, 1964; Paluszny & McNabb, 1975) described young children left to babysit defiant siblings. Adelson (1972) documented cases of children as young as 2 years old who inflicted fatal injuries on infants in an angry attempt to stop them from crying.

## School Shootings

Over the past two decades, highly publicized and tragic school shootings have evoked widespread public fear that schools are dangerous places. On the contrary, schools are one of the safest places for children to be during the day. One study found that only 0.3% of homicides in occur in schools; homicides were much more likely to occur at residences (52%) or on the streets (24%) (Nekvasil, Cornell, & Huang, 2015). For child victims, school homicides account for only about 1% of homicides for youth under 18 (Centers for Disease Control and Prevention, 2010).

Students who carry out homicide attacks at school are a heterogeneous group and there is general agreement that no profile or set of risk factors are sufficiently specific that they can be used to pinpoint a potential shooter (O'Toole, 2000; Rocque, 2012; Vossekuil et al., 2002). In an analysis of 37 acts of targeted school violence by 41 students, the US Department of Education and Secret Service found that many of these youth had been suicidal (78%), victims of bullying (71%), and intensely interested in violence (59%) (Vossekuil et al., 2002). On the other hand, many were active in peer groups, lived in two-parent homes, did well academically, and had not been in trouble at school (Vossekuil et al., 2002). Almost all of the school shooters (98%) experienced a major loss before the attack, including perceived failure or loss of status.

Most notably, in 81% of the incidences, the youth had told as least one person that they were considering a school attack. In some instances, the shooter divulged the date, time, and location to others beforehand. This is a key finding because it indicates that there is an opportunity to prevent school shootings if threats are reported and subsequently investigated. In its study of school shootings, the FBI identified shootings that were prevented because troubling student behavior had been reported to authorities, investigated, and found to be a credible threat. Based on these observations, both the FBI and Secret Service reports on school shootings recommended a threat assessment approach to investigate and respond to student threats (O'Toole, 2000; Vossekuil et al., 2002). In response to these recommendations, Cornell and colleagues (Cornell et al., 2004; Cornell & Sheras, 2006) developed the first threat assessment program for schools that has been recognized as an evidence-based practice (Cornell, 2015). Students in schools using the Virginia Student Threat Assessment Guidelines report a more positive school climate with less bullying and more positive student–teacher relationships, and schools record lower suspension rates than schools using other approaches to student threats of violence (Cornell, Gregory, & Fan, 2011; Cornell, Sheras, Gregory, & Fan, 2009; Nekvasil & Cornell, 2015).

## Extremist Violence

The radicalization of youth has become a growing concern in the USA, Great Britain, and elsewhere as teenagers and young adults have made attempts to join terrorist organizations such as the Islamic State in Iraq and Syria (ISIS). Acts of terrorism by youth have also occurred within the USA; 19-year-old Dzhokhar Tsarnaev, under the influence of his older brother, planted bombs that killed three people and injured hundreds at the 2013 Boston Marathon. Lee Malvo was 17 years old when he and his surrogate father John Mohammad killed 10 and wounded three in the Washington D.C. sniper shootings of 2002. How does radicalization take place? One pathway involves a charismatic leader or father-figure who inflames the youth with anger about social injustice and ignites an idealistic passion for what are construed as heroic acts of violence (Bizina & Gray, 2014). Many of these youth seek a sense of identity and an outlet to overcome perceived injustices (Baker, Mitchell, & Tindall, 2007).

The potential for youth to be coerced into severe acts of violence by adults is most evident in the phenomenon of child soldiers (Human Rights Watch, 2008). It is estimated that 250,000 child soldiers are currently actively involved in combat around the world (Debchaudhury, 2014). These youth have been abducted, brutalized, and compelled to join a military unit where they carry out savage acts of violence, in some cases killing family members and friends. Rehabilitation efforts for former child soldiers include treatment for posttraumatic stress, providing formal education, reuniting children with their family, and counseling to help former soldiers to express themselves in a nonaggressive manner (Debchaudhury, 2014).

## Etiological Factors

There is a well-established link between ineffective parenting and the development of increasingly antisocial and aggressive behavior (Waller, Gardner, & Hyde, 2013). Yet there are cases in which well-intentioned and seemingly capable parents are faced with the nightmarish scenario of a youth who has engaged in seemingly inexplicable homicidal violence. In one case evaluated by the author, the son of a prominent minister killed his pregnant girlfriend when it became clear to him that she would bring public shame and humiliation to him, his much-admired father, and his entire family. In another case, the son of a well-regarded school principal became angry and despondent when his parents insisted he attend college rather than join the military. When it became apparent his parents would discover that he had secretly squandered his college tuition money, he carried out a methodical plan to ambush and kill both mother and father in succession. In both cases, there was information from siblings and other relatives that the parents

were devoted, caring, and not abusive. It is note-worthy that the siblings were the more favored, high-achieving, and successful children in the family, while the murdering sons had long suffered by comparison and felt they could not measure up to their parents' expectations. In neither case did the son have a history of violent behavior, although both had a fascination with guns and bolstered their self-images with narcissistic and aggressive fantasies.

## Entertainment Violence

There is need for more research to determine social media factors that increase the vulnerability of some juveniles to commit violent acts against others. A particular area of concern is youth exposure to entertainment violence through violent television and video games. Children reared in dysfunctional families, with parents who approve or support aggressive behavior, and who otherwise lack positive and supportive role models that discourage violence, may be particularly at risk. Adolescents exposed to high levels of entertainment violence exhibited more aggression when reared in high conflict families than adolescents who were exposed to similar amounts of violent media but had a more positive home environment (Fikkers, Piotrowski, Weeda, Vossen, & Valkenburg, 2013).

The relation between youth violence and exposure to entertainment violence has been hotly debated for decades. There is voluminous evidence, through both laboratory experiments and observational field studies, that children who watch violent television shows and play violent video games have an increased risk to engage in aggressive behavior and will demonstrate more aggression over time (Anderson et al., 2010; Huesmann, 2007), although the link between entertainment violence and later criminal violence is less clear (Ferguson, 2015). The numerous mechanisms by which exposure to media violence can increase aggressiveness include desensitization to violence, lack of empathy for others, increased expectations of violence by others, role modeling of violent behavior, and

the development of internalized cognitive scripts that guide decision-making in social conflict situations (Anderson et al., 2010; Bushman & Anderson, 2009; Gentile, Saleem, & Anderson, 2007; Huesmann, 2007). There is considerable reluctance by the entertainment industry, as well as the general public, to recognize and respond to the implications of these conclusions (Bushman & Anderson, 2001).

The author has evaluated juvenile homicide offenders who described great interest in movies that depict reckless violence and sadistic killing. They enjoyed music advocating homicidal behavior and they were enthralled by video games and fantasy games that required them to shoot, stab, and beat their adversaries. In one case, a 16-year-old boy decided that he could prevent his stepfather from administering a beating by pulling a shotgun on him, similar to a scene he had witnessed in a movie. When his enraged stepfather suddenly leapt forward to grab the gun, the terrified boy impulsively pulled the trigger and killed him. Among the many factors that had a causal influence on this event, media violence shaped the boy's thinking and contributed to this outcome.

## Assessment and Diagnosis

Legal authorities and clinicians may find it disconcerting that a homicide was committed by a youth who looks and acts like a typical teenager. The youth may suppress or deny feelings of concern about the homicide, and present little overt sign of either significant distress or major psychopathology. Some defiant, defensive youth may even feign a lack of concern for their victim or their present legal circumstances. There is an understandable expectation that there must be some hidden gross abnormality to account for murder by someone so young. Consequently, it is particularly important to conduct a thorough, comprehensive diagnostic evaluation that identifies or rules out psychosis or severe neuropsychological impairment. Conduct disorder and substance abuse appear to be the most common diagnoses assigned to juvenile homicide offenders, although a variety of disorders have been

observed (Dolan & Smith, 2001; Myers, Scott, Burgess, & Burgess, 1995; Rodway et al., 2011).

A comprehensive evaluation includes a thorough diagnostic interview along with a developmental and social history. The youth's self-report should be corroborated and supplemented with interviews of family members or witnesses, and a review of medical, school, and legal records. The clinician should be persistent in seeking all available records, especially any documentation of the offense from witnesses, investigators, and defendant statements.

Psychological tests are appropriate to address specific issues such as the juvenile's level of intellectual functioning, presence of psychiatric symptoms including depression and thought disturbance, and personality characteristics associated with antisocial or psychopathic development. Projective tests such as the Rorschach and structured tests, such as the Millon Adolescent Clinical Inventory (MACI) and the Minnesota Multiphasic Personality Inventory—Adolescent form (MMPI-A), can be useful as a supplemental source of information. Clinicians are advised to follow standard administration and scoring procedures for these tests, and to be prepared to defend the conclusions drawn from these tests in court should they be reviewed by a skeptical expert hired by an opposing attorney. Clinicians should not rely on the interpretive statements from computer-generated reports; few studies have assessed the validity of these reports, particularly for forensic application with juvenile offenders (Lichtenberger, 2006; Snyder, 2000).

Clinicians should be exceedingly careful in diagnosing rare or unusual conditions such as dissociative disorders or seizure-related syndromes speculatively linked to violent behavior, particularly when the evidence for such diagnoses is limited to criminal behavior. Diagnostic criteria for such conditions rely heavily on clinical inference and interpretation of the youth's subjective experience, which cannot be readily verified. Youth who claim amnesia or describe dissociative-like experiences during the offense should not on this basis be considered psychotic, and of course all criminal defendants claiming psychotic symptoms should be evaluated carefully for malingering. The clinician must resist the temptation to explain away behavior that can be more parsimoniously attributed to interpersonal conflict or antisocial personality characteristics.

## Brain Impairment

There has been considerable attention to the possibility of brain damage in violent juvenile offenders (Cope et al., 2014; Farrer, Frost, & Hedges, 2013; Vaughn, Salas-Wright, DeLisi, & Perron, 2014). Severe neuropsychological impairment may be overlooked in some rare cases. For example, Martinius (1983) reported that a chronically aggressive 14-year-old boy who killed an 8-year-old during an argument was later found to have a right temporal lesion. Nevertheless, most cases do not present compelling evidence of severe neurological impairment, although clinicians and defense attorneys alike may be tempted to seek neurological evaluations and sophisticated brain studies in hopes of identifying a rare abnormality.

Less severe brain impairment might serve as a contributing factor that increases the likelihood of aggressive behavior without being a necessary or sufficient cause of violence. For example, there is a high incidence of learning and attention problems among violent and homicidal youth, which often rise to the level of a diagnosis of an attention deficit disorder or learning disorder (Mallett, 2014; Retz & Rösler, 2009; Young, Moss, Sedgwick, Fridman, & Hodgkins, 2015). Many studies find that a disproportionate percentage of juvenile offenders have a verbal-performance discrepancy on intelligence testing that reflects verbal or language-based impairment (although nonviolent delinquents show similar deficits—see Cornell & Wilson, 1992; Hays, Solway, & Schreiner, 1978). Cognitive and learning problems may contribute to school failure, poor self-esteem, deficits in moral reasoning, poor social skills and difficulties resolving interpersonal conflicts, or other negative outcomes that directly or indirectly increase the risk for violent behavior.

Brain damage or impairment refers to a continuum of abnormality that might include youth with soft neurological signs not associated with any discernible physical abnormality. However, the presence of gross brain abnormality does not necessarily provide an explanation for violent behavior or indicate that the youth was not criminally responsible for his behavior at a specific time.

Research demonstrating the structural immaturity of the adolescent brain might be used to argue that juveniles do not fully understand the consequences of their crimes and should not be susceptible to the same criminal justice system as adults. There is credible evidence that areas of the brain responsible for planning, impulse control, and emotional regulation are not fully developed until the early 20s (Steinberg, 2013). Although arguments of immaturity have relevance and merit in sentencing matters, they are less likely to affect determinations of guilt or innocence. Developmental neuroscience has had its greatest impact at the policy level. In 2005, the Supreme Court abolished the death penalty for juveniles (Roper v. Simmons, 2005) and in 2012 ruled against mandatory life without parole sentences for juveniles (Miller v. Alabama, 2012). The Court specifically note that the immaturity of the adolescent brain makes them vulnerable to impulsiveness, recklessness, and a failure to appreciate risks and consequences in comparison to adults, and that they should not be held fully responsible for their actions (Miller v. Alabama, 2012; Roper v. Simmons, 2005). Furthermore, some states have modified sentencing laws to recognize adolescent intellectual development (Maroney, 2009).

## Forensic Evaluations

A variety of mental health professionals may be involved in a single juvenile homicide case. Clinicians working for the incarcerating institution will assume the front-line clinical management responsibilities, while outside professionals may be assigned to conduct forensic evaluations to address legal issues. Because of the potential

for role conflict and compromised confidentiality, the duties of treatment provision and forensic evaluation should be undertaken by different professionals. Forensic evaluation requires specialized training and experience, and legal standards and requirements vary by jurisdiction, so the forensic issues addressed in juvenile evaluations will be reviewed only briefly here (for an overview, see Heilbrun, DeMatteo, Holliday, & LaDuke, 2014; Melton, Petrila, Poythress, & Slobogin, 2007b).

### Transfer to Adult Court

Usually the first forensic issue to be addressed is the juvenile's transfer to adult court. Although in many states a juvenile charged with murder is tried as an adult automatically, others allow hearings to determine if the case is suitable for transfer from juvenile to adult court (OJJDP, 2011). A forensic evaluation for transfer purposes (sometimes called a waiver evaluation) typically includes consideration of the juvenile's amenability to treatment and competency to stand trial. The juvenile court's traditional emphasis on rehabilitation leads logically to the issue of amenability to treatment, while the adult court's greater emphasis on punishment and incapacitation heightens concern for the juvenile's competency to stand trial.

Amenability to treatment is not well defined, but involves consideration of several related questions. Perhaps the basic underlying question is whether the juvenile's offense can be considered the product of a persistent antisocial orientation, which is likely to lead to further criminal behavior. This is a complex question that requires inferences about the juvenile's motives and behavior at the time of the offense, a conceptualization of antisocial personality development in adolescence, and the difficult issue of recidivism prediction. Further questions concern whether the juvenile has a treatable mental disorder and is sufficiently motivated to engage in treatment. Amenability to treatment also begs the question that there are effective treatments available, and clinicians should be knowledgeable concerning current treatment and prevention approaches for youth violence (Hoge, Guerra, & Boxer, 2008;

Matjasko et al., 2012). Moreover, in evaluating amenability to treatment, the court also will consider the practical issue of the availability and efficacy of treatment resources in the community.

## Competency to Stand Trial

The juvenile's competency to stand trial is a concern in both juvenile and adult court. As the punitive nature of juvenile court has increased over the years, the issue of competency to participate in legal proceedings has become more salient (Heilbrun et al., 2014). Competency to stand trial concerns the defendant's present mental state, not his or her behavior at the time of the offense. Competency to stand trial is usually considered to require that the defendant "has sufficient present ability to consult with his attorney with a reasonable degree of rational understanding and a rational as well as factual understanding of the proceedings against him" (Dusky v United States, 1960). Whereas most competency assessments assess the defendant's mental and emotional functioning and intelligence, some authorities contend that some juveniles lack competency to stand trial due to developmental immaturity (Scott & Grisso, 2005; Viljoen & Grisso, 2007). One study found that nearly one-third of juveniles ages 11–13 and one-fifth of juveniles ages 14–15 performed similarly on competency to stand trial measures as adults who were found incompetent (Grisso et al., 2003). Older adolescents had similar rates of competency as adults.

## Waiver of Miranda Rights

Many juveniles detained for a crime will waive their Miranda rights and give a statement to the police without benefit of counsel (Kassin et al., 2010). Even when parents are available to the juvenile, in most cases parents will assume a passive role or encourage the juvenile to give a statement (Grisso, 1981). With prolonged questioning, many juveniles can be prodded, cajoled, or beguiled into giving the police incriminating statements (Kassin et al., 2010; Owen-Kostelnik, Reppucci, & Meyer, 2006). Adolescents may surrender to an investigator who assumes a sympathetic attitude and offers fatherly advice and encouragement to confess. In a study of 125 false

confession cases in the USA, 32% were from juveniles under 18 (Drizin & Leo, 2004).

## Mental State at Offense

When evidence of the adolescent's incrimination is unequivocal, the defense attorney may consider an insanity defense, prompting an evaluation of the youth's criminal responsibility, also known as a mental-state-at-offense (MSO) evaluation. An MSO evaluation requires a detailed, painstaking review of all available evidence bearing on the juvenile's state of mind and behavior during the time period bracketing the alleged offense. Legal standards for insanity vary from state to state, but most commonly require that the defendant meet the threshold condition of a mental disease or defect, followed by the secondary condition of either a cognitive or volitional impairment directly linked to the offense (Melton, Petrila, Poythress, & Slobogin, 2007a). A mental disease or defect is usually considered to be a severe mental disorder or mental retardation that substantially impairs the youth's understanding of reality and the nature of the criminal act (Melton et al., 2007a; Murrie & Kemp, 2014).

## Disposition

Mental health professionals frequently are asked to provide information that would assist the court in deciding the juvenile's legal disposition. Most often, the clinician offers treatment recommendations and identifies educational or vocational needs. The court may be interested in the juvenile's remorsefulness and acceptance of responsibility for his or her crime. More generally, the court may request information concerning the juvenile's prospects for rehabilitation and capacity for change.

Implicit or explicit in court requests will be the question of the juvenile's potential for future acts of violence. Nevertheless, clinicians should be aware of the substantial literature and knowledge base on risk factors for criminal recidivism, especially psychopathy and mental disorders that might be used to frame appropriately qualified dispositional recommendations (Asscher et al., 2011; Barrett, Katsiyannis, Zhang, & Zhang, 2014).

## Treatment and Prognosis

Clinicians working in jail or juvenile detention settings have primary responsibility for clinical management of juvenile homicide offenders. The clinician's first task is to assess the youth's mental state, with particular attention to suicide risk. The youth may struggle with feelings of shame, guilt, and grief that lead to suicidal ideation and warrant careful monitoring.

A second concern is the youth's potential for further violent behavior directed at others. Security staff may be inclined to judge the youth's potential for problem behavior based on the seriousness of the offense; on the contrary, predictions should give heavy consideration to a review of his or her prior behavior under relatively structured conditions such as school. In cases known to the author, youth with little history of fighting or aggressive behavior prior to the homicide tend to return to this pattern following the offense. Surprisingly, in most cases, youth charged with homicide conform to institutional requirements and often come to be described by security staff as compliant, well-behaved inmates. Depending on jurisdictional laws and policies, when juveniles are transferred to adult court, they may be removed from a juvenile detention center and placed in a jail to await trial.

A third clinical management issue is preparation for a long period of incarceration prior to trial. Juvenile homicide cases are rarely tried promptly, and the youth must deal with a long period of uncertainty over his or her legal status and eventual disposition. This uncertainty makes it difficult for the youth to engage in a psychotherapy process or to begin to come to terms with the horror and tragedy of the homicide. Clinical work is largely supportive and educational, and focused on day-to-day adjustment to the institution and preparation for trial. Given that the pretrial period is so lengthy, it may be desirable to seek judicial authority to maintain the youth in a juvenile setting. In any event, the youth should be involved in a daily educational program working toward high school completion or the equivalent.

A fourth issue throughout pretrial confinement is the youth's relationship with family members and close friends. There will be painful initial meetings with friends or family members who now see the teenager as a "killer" or "murderer." There may be splits in family reactions to the homicide. Some family members will condemn the youth and break off contact, while others will dedicate themselves to providing emotional support and reassurance. Some family members will testify at trial or at sentencing, so that their attitudes toward the youth have legal as well as emotional consequences. In some cases, it can be helpful for the counselor clinician to hold one or two joint meetings with the youth and a supportive family member. Youth may be more willing to discuss conflictual family relationships with the encouragement and prompting of a supportive relative, and new information about the youth may come to light. At the same time, the clinician can assist the youth in communicating painful feelings.

The juvenile offender's treatment needs will change as he or she moves through the justice system and into long-term confinement. The immediate challenges of adapting to incarceration and preparing for prosecution take precedence over longer-term objectives such as coming to terms with the offense and repairing deficiencies in identity and maturity. A supportive counselor can be most effective in guiding the youth through the initial adjustment period, which includes the following tasks: (1) acceptance of incarceration and institutional routine; (2) development of a working relationship with the defense attorney; (3) tolerating the stress of legal proceedings; and (4) loss of contact with family.

Initially, the juvenile may cope with the shock and disruption associated with arrest and incarceration by focusing on seemingly insignificant matters such as the daily jail schedule. In counseling sessions, many youth manifest a detached and wooden presentation that appears cold and indifferent. This can be a defensive facade to control and contain emotions. Nevertheless, even the most detached youth usually acknowledge considerable preoccupation with the offense and, in less guarded moments, display anxiety, grief, and guilt. More ambitious therapeutic goals can be pursued after the juvenile is sentenced, but this means that the

youth begins treatment with a new clinician, who must begin again the slow and uncertain process of establishing rapport and trust. Because many youth continue to harbor unrealistic hopes about the possibility of acquittal or a light sentence, the convicted youthful offender may be especially demoralized and discouraged, and less than optimally motivated for treatment. And, in adult institutions where therapist resources are limited, offenders may receive attention restricted to acute needs and behavior management rather than their potential for growth and maturity over the course of intensive psychotherapy.

Myers (1992) argued for the use of psychiatric hospitalization and therapeutically oriented juvenile offender institutions for homicide offenders. In many respects, treatment for juvenile homicide offenders should be similar to treatment for other aggressive and antisocial youth (e.g., Henggeler & Schaeffer, 2010; Jacobs, Hlastala, & McCauley, 2008). Group therapy can be useful in helping youth to overcome resistance to acknowledging their behavior and accepting responsibility for their actions. Groups also can provide a context for improving social skills and problem-solving capacities. Educational and vocational programs are important components of any rehabilitative effort.

Treatment of juvenile homicide offenders differs from that for other aggressive youth when it comes to dealing with the crime. The unalterable tragedy and permanency of death, and its devastating effect on loved ones, make homicide a singularly demanding therapeutic challenge, one likely to require long-term individual psychotherapy. Eventually the youth must come to terms with his or her crime in all of its complexity and horror. This process would include examining motivations, alternatives, and decisions that led to the offense, and is likely to entail intense grief and remorse as the youth fully accepts responsibility for his or her actions. The length and complexity of this process is illustrated by Leopold's (1957) first-person account of his incarceration for the murder of a young boy. After years of defensive denial, Leopold went through a period of depression and despondency evolving into a gradual acceptance of responsibility for his

crime. There are structured therapy programs, such as the psychodrama program described by Reyes (1990, 1996) that attempt to overcome offender denial and accelerate the process of coming to terms with the offense. The long-term results of these experimental treatment efforts will be a valuable contribution to the field.

For those incarcerated youth who eventually will be released, it is particularly important to prevent further development of antisocial and psychopathic characteristics. Juveniles who must cope with a prison environment may be inclined to develop the attitudes and values of their associates, and to overcome feelings of vulnerability by hardening themselves against anxiety or dependency. Institutions should minimize juvenile exposure to the most corruptive adult offenders, and facilitate involvement in a more prosocial peer environment, with access to therapeutic role models and rehabilitative services (see Redding, 2010). Family members can and should play an important role by preserving positive ties to the youth, maintaining morale, and providing a source of hope for the future.

## Recidivism

Large-scale recidivism studies have not been conducted, so it is not possible to reach firm conclusions about the criminal behavior of juvenile homicide offenders who are released from prison. The available studies suggest that over half will go on to commit another crime (Hagan, 1997; Heide, Spencer, Thompson, & Solomon, 2001; Vries & Liem, 2011), a rate similar to other juvenile offenders (Cottle, Lee, & Heilbrun, 2001). Most offenders were rearrested for any crime within the first 5 years of release (Heide et al., 2001; Vries & Liem, 2011). A 10-year follow up study of 137 juvenile homicide offenders in the Netherlands found that two individuals committed a second homicide (Vries & Liem, 2011).

Few studies have compared recidivism rates of juvenile homicide offenders to non-homicide offenders. Toupin (1993) conducted a follow-up study of 43 Canadian juvenile homicide offenders an average of 83.5 months after release to the

community. Toupin classified homicide offenders using the crime and conflict pathway distinction (Cornell et al., 1987) and compared the homicide groups to a property offender group. He found that crime homicide and property offenders committed similar levels of violent and nonviolent crimes after release to the community, but that conflict pathway offenders committed significantly lower numbers of violent offenses than either of the other groups.

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# A Cultural and Psychosocial Perspective on Mass Murder

James Garbarino and Danielle Nesi

## Introduction: The Challenge of Definition

Several different definitions have been proposed by investigators seeking to understand the phenomenon of "mass murder," although they have much in common. For example, Palermo and Ross (1999) define mass murder as "the sudden, intentional killing of more than one person in the same location and at the same time, usually by a single person" (Palermo & Ross, 1999, p. 8) while Meloy et al. (2004) define mass murder as "the intentional killing of multiple victims in one continuous event" (p. 291). Levin and Madfis (2009) define mass murder as the "anti-social and non-state-sponsored killings of multiple victims during a single episode at one or more closely related locations" (p. 1227).

Most commonly, definitions of mass murders specify a minimum number of victims, typically at least four fatalities. One such definition was proposed by Fox and Levin (2003), who specified that "Mass murder involves the slaughter of four or more victims by one or a few assailants within a single event, lasting but a few minutes or as long as several hours." As Fox and Levin (2003) explain, the minimum number of causalities is

not arbitrary. Rather, using the four-person "minimum body count—as opposed to a two- or three-victim threshold suggested by others—helps to distinguish multiple killing from homicide generally." However, researchers have noted that while mass murders by definition require more than one victim, the specification of a specific number of victims, whether it be two, three, four, or more victims, seems arbitrary (Edelstein, 2014). That said, the Bureau of Justice Statistics (2011) reports that in 2008, of all homicide incidents, 3.7% involved two victims, 0.5% involved three victims, 0.2% involved four victims and only 0.1% involved five or more victims. Consequently, it seems clear that the vast majority of murders involve fewer than four victims (97.7%) and the rarity of this phenomenon could imply that there is something distinct about murders involving greater numbers of victims as compared to more "typical" murders.

The Fox-Levine definition also seeks to differentiate "mass murder" from highly organized or institutionalized group killings such as war crimes, large-scale acts of political terrorism, and murderous acts committed by highly organized criminal organizations that result in large numbers of victims (as in the case of drug cartels in Mexico in recent years). They place this definitional restriction out of a conviction that these other forms of killing are very different from typical mass murders committed by "private" individuals. One rationale for differentiating

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mass murders committed by "private individuals" from other forms of mass homicide lies in the matter of prevention. While homicidal individuals and organizations that encourage mass killings may be primarily a "political" matter, private mass murderers such as school shooters, workplace avengers, and family annihilators are primarily "psychological"—even, as we shall see, in those cases where there is strong "cultural" influence on homicidal behavior. The more "psychological" the motivations, the more feasible it becomes to identify individuals who may be at risk of committing such horrific behaviors. This, in turn, increases the possibility for developing interventions that would prevent or limit the occurrence of these traumatic events.

Within the confines of "private" killings, "mass murders" are distinguished from other types of multiple killings such as "serial murders" or "spree murders." Serial murderers, in contrast, kill more than two victims with a cooling-off period between individual killings (Burgess, 2006). Another traditional definition of serial killers includes only individuals who have killed three or more people (Holmes & Holmes, 2010). The important distinction, however, is serial killers murder their victims separately, and over a period of time, with a cooling-off period between individual murders (Allely, Minnis, Thompson, Wilson, & Gillberg, 2014). Spree murders, which can be thought of as a subset or subtype of serial murder, are "characterized by the killing of four or more victims showing an underlying pattern (i.e., victim selection, motivation, method) in their commission" (Pollock, 1995, 260). However, Hickey (1991) proposed that the "spree" subtype of serial murderers typically kill both males and females in a short time frame (in as little as 1 week) with no sexual assault or ritualism and a high degree of randomness present in the selection of victims. Furthermore, according to Hickey (1991), the "cooling off" period between individual killings is typically very short.

It is important to differentiate mass murderers from serial murderers based on the fact that the characteristics and motivations of serial murderers appear to differ greatly from "traditional" mass murderers. Though the results may appear similar (i.e., multiple fatalities), there are important distinctions between these two groups of offenders. For serial killers, murder is motivated by internal, psychogenic factors, and the act of murder itself is psychologically rewarding (Hickey, 1991). Moreover, fantasy is often the underlying basis for serial murder (Ressler, Burgess, & Douglas, 1988). Specifically, much of the forensic literature has concentrated on the paraphilic fantasy as a "dry run" or antecedent for solitary rape-murder and serial sexual homicide (Prentky et al., 1989; Schlesinger, 2000), and there is overwhelming agreement that a preoccupation with sadistic or controlling sexual fantasies increases the risk of murderous behavior. However, there is less consensus regarding the root cause of these sexually violent fantasies (Carlisel, 2000; Lewis, 1998; Meloy, 1998; Stein, 2004). The unique motivation of serial murderers is also important with respect to the influence this motivation has on the continued occurrence of this behavior among its perpetrators. Unlike other types of homicidal individuals, for whom homicide is an isolated occurrence, the strong connections between sexual fantasy and homicide indicate that such perpetrators are likely to continue their murderous behavior until they are apprehended. As Ressler and Shachtman (1992) explains, serial killers are obsessed with their fantasies of murder, and thus are driven to repeat their crimes until such fantasies are perfectly enacted (which may well be never). Thus, due to their strong internal motivations to continue such behavior, serial killing may persist for years until the perpetrator is caught or turns himself (or in rare cases, herself) in to authorities (Waller, 2010). However, there are some well-known cases in which a serial killer has stopped killing for an extended period of time before killing again. One example was Dennis Rader, the infamous BTK ("bind, torture, kill") killer who murdered ten individuals between 1974 and 1991 before coming forward in 2005 (Walsh, 2011).

Consequently, correctly characterizing and differentiating different types of multiple murders is crucial in studying these events, and this includes being able to accurately identify the prevalence of

such occurrences. Continued efforts to study the commonalities of these different events and their perpetrators will ultimately (hopefully) inform treatment and prevention efforts.

But do these distinctions really make sense? And do they matter? Should we not include terrorism and military assaults under the rubric of "mass killings"? And are the psychology and sociology of mass killers (and mass killings) appreciably different from "regular" killings in which there are less than four victims? To the best of our knowledge, empirical research does not address (let alone answer) these questions. On a parallel topic, our recent review of the impact of terrorism on children (Garbarino, Governale, Henry, & Nesi, 2015) concluded that the distinction between "private" and "state terrorism" is a false distinction, and one that is misleading.

The existing data (Chomsky & Herman, 1979; Martin, 2006) show that most of the terrorism in the world is sponsored by and/or committed by State actors, not individuals or small private political groups. Discarding that distinction makes it easier to see that the motivations of terrorists are better understood by not giving a "free pass" to States. Thus, in our analysis we rejected the shielding of State-sponsored acts of mass violence through a definition that legitimizes State violence while putting private violence outside the bounds of legitimacy. What both have in common is a willingness to justify violence in the name of a "higher" good—an ideology, a social change, a redistribution of political and/or economic power, for example, no matter how deluded that justification (rationalization?) may be. What is more, delusions may be central to both, albeit "public" delusions in the case of State terrorism and mass killing, and "private" delusions in the case of individual mass killers.

Logan (2014) has contributed a useful perspective on this point. He emphasizes the importance of "overvalued ideas" in the motivation and rationale for killing in general, and mass killing in particular (and as we shall see, particularly among males). He quotes the official diagnostic language of psychiatry and clinical psychology (the *Diagnostic and Statistical Manual* [DSM], in his case, version IV), to the

effect that an overvalued idea is "an unreasonable and sustained belief that is maintained with less than delusional intensity." It is worth noting his expanded conceptualization:

> These persons have idealized values, which have developed into such an overriding importance that they totally define the 'self' or identity of the individual. It is an unreasonable belief over which the person has become obsessed to the extent that he/she is unable to adapt to different circumstances. Although they can remain functional, they have a high degree of affect (e.g. anxiety or anger) when there is a threat to the loss of their goal or object of the belief and may taken action they believe is justified … People with overvalued ideas are not completely and irrational fixed in their beliefs. However, rigidity of belief makes it more resistant to any treatment and able to ignore the consequences of acting on their value. As a result, they are more likely to commit violence than persons with delusions. (p. 159)

A recent illustration is the case of Dylann Roof, who killed nine people in a South Carolina church in June of 2015. It is reported that Roof was deeply immersed in racist Internet culture and had come to the belief (overvalued idea) that a race war was necessary to solve American social problems. He visited an African-American church and spent time interacting with an early evening prayer group before opening fire. The crucial point here is that immediately before shooting them, he reportedly said words to the effect of, "You are nice people and have all been so nice to me and made me feel welcome with you, but my cause demands that I kill you."

No account of Roof's behavior can be said to be informed without the recognition that there is a long tradition of racism as a rationale for killing Black people in America, a rationale that resonates across the decades and centuries. This extends from the thousands lynched in the South until well into the 1960s, to the repeated shooting of unarmed Black boys and men by police and civilians in recent years. The same goes for violence against women. Racism and misogyny are indeed "traditional American values" that take on a particularly lethal form when they enter the consciousness of troubled individual males.

Mass murders, like all human behavior, take place within a social and cultural context. To ren-

der this point with gross (and potentially offensive) simplicity: Even crazy people act within cultural scripts. It has been established that the correlation between mental illness and violence is very low if it exists at all; it must be stressed that people with diagnosable mental health problems *are not* more violent than "normal" people (and those with severe mental illness are much more likely to be victims of crime than perpetrators) (Desmaris et al., 2014). Most people diagnosed with severe mental illnesses—such as bipolar disorder, schizophrenia, and major depression—are never violent towards others, and the majority of violent individuals do not suffer from these major mental disorders (Swanson, McGinty, Fazel, & Mays, 2015). In fact, the majority of homicides in the USA are perpetrated by individuals who are characterized by two things: they are not psychiatrically ill, and they use guns. Friedman and Michels (2013) conclude that the best estimates indicate that only 4% of violence can be attributed to persons with mental illness (Fazel & Grann, 2006). Though the lifetime prevalence of violence among people with serious mental illness appears to be higher (16%) when compared to those without mental illness (7%) (Swanson, 1994), this increase is generally attributed to substance abuse, either viewed as a distinct individual mental disorder/illness or comorbidly occurring with another mental health diagnosis. Evidence further supporting the increased incidence among of violence among the mentally ill to substance abuse can be found in the MacArthur Risk Assessment Study, which noted the prevalence of violence among those with a major mental disorder who did *not* suffer from substance abuse was indistinguishable from a control group (Monahan et al., 2001; Steadman et al., 1998). Instead, it appears alcohol and drug abuse are far more likely to result in violent behavior than other mental illnesses.

Individuals who abuse alcohol or other drugs but have no other comorbidity or other mental disorder are nearly seven times as likely to commit acts of violence compared to those who do not abuse substances (Friedman & Michels, 2013). This is one important reason to include terrorism and political violence within the confines of "mass killing." Why? Because there is no such thing as a "senseless" killing. *All* killing makes sense from the perspective of the perpetrator. Thus, it is crucial to recognize that including both State-sponsored collective violence and "cold-blooded" criminal collective murder within the concept of "mass killing" allows us to see the commonality between "crazy" mass killers and "sane" mass killers. *Both* believe their collective violence makes sense.

Culture plays a significant role here, on both scores. Research reveals that the USA leads the world in "private" mass killings. With 5% of the world's population, the USA accounts for 31% of the world's public mass shootings. Lankford (2013) has documented this (using the conventional definition of four or more victims and disqualifying gang killings and the death of multiple family members). He offers several reasons for this finding, including the prevalence of guns in the American society and the ease with which individuals with diagnosable mental health problems and other psychological risk factors are able to access firearms. Here we can offer another explanation.

A cross-national anthropological study (Lankford, 2013) explored the *content* of vocal hallucinations of 20 schizophrenics in each of three countries: India, Ghana, and the USA. In India, 13 of the 20 heard voices of family members urging them to perform household tasks and generally engage in more positive behavior. Only four of the 20 (20%) heard voices that commanded them to hurt someone. In Ghana, 16 of 20 schizophrenics reported hearing God (or other deities) and the content was generally positive. Only two (10%) heard voices that urged them to commit violent acts. In the USA, however, 14 of the 20 (70%) heard voices that told them to engage in violence against themselves or others. None said the voices were predominantly positive in content and tone. Crazy people act within a cultural script, and for Americans that script is laden with violence, even when that script is being read by an "imaginary" voice in your head. Is it any wonder the USA leads the world in public mass shootings of the type studied by Lankford?

To this point, an analysis by Levin and Madfis (2009) looked at the role that cumulative strain plays in the dynamic that gives rise to mass murders at school. This model highlights the important connection between masculinity and violence in American society as an important element of the sequential model that precedes a school shooting. As they see it, there is a five-step sequential model that often precedes school shootings. This model begins with persistent strain, which can be seen as a chronic frustration (such as a string of failures to achieve an individual's objectives, and a number of important frustrations throughout childhood). They define Step 2 as a period of uncontrolled strain.

While the strains of everyday life ordinarily are contained by the presence of unconventional and prosocial relations for most individuals, school shooters and other mass murderers lack these prosocial relations and the social conventions that are derived through positive interpersonal bonds that, when present, serve to inhibit aggressive and violent behavior. Following a period of chronic and uncontrolled strain, an acute strain occurs that serves as a catalyst or precipitant. Acute strains are short-term but particularly troubling situations or events which seem catastrophic to individuals who are already troubled, frustrated, and isolated, and who may have lost or never learned the ability to cope effectively with adversity. This acute event then leads to the planning stage (Step 4) and ultimately to the massacre (Step 5). The fact studies have found that nearly all bullied students who went on a violent rampage were boys (Kimmel & Mahler, 2003) has led sociologists to argue that the tormentors attacks their victims' masculinity and manhood in profoundly important ways.

Along these lines, Kimmel and Mahler (2003) found that while the vast majority of the shooters were not homosexual, many feared being misperceived as gay or as having gay tendencies and thus as having failed in their manhood. These boys were described as different from other boys and were characterized as "shy, bookish, honor students, artistic, musical, theatrical, nonathletic, 'geekish,' or weird" (Kimmel & Mahler, 2003, p. 1445). As Levin and Madfis (2009) explain,

chronic strain is not enough to push an individual into a multiple-victim spree of violence, which is evident by the fact that most who experience chronic strain do not engage in violence. That said, individuals who have chronic strain, and due to isolation and rejection fail to develop conventional standards of behavior and social connections, are at a much greater risk of violence. This is particularly true if this background is coupled with an acute strain or traumatic event, particularly in societies that emphasize violence and equate aggression and masculinity. For these individuals, a school shooting becomes a final "catastrophic show of force" wherein boys who have been continually humiliated, ignored, isolated and emasculated can regain lost feelings of masculinity, pride, power, and acknowledgement and exert dominance over perceived tormentors.

The hypothesis that rejection and threatened masculinity play a significant role precipitating mass murders has also gained a significant amount of attention in recent years. Much of the discussion has focused on the idea that in addition to threats against masculinity, which has been indicated as a motivating factor in events of mass murder, there is growing discussion regarding the idea that threats to masculinity frequently also derive from sexual frustration for many mass murderers. This dynamic can be observed in the overrepresentation of male perpetrators who commit murders, and also in the characteristics of the perpetrators themselves, including the commonality that many mass murderers appear to have misogynistic beliefs and disproportionately target females. As noted by Chemaly (2015), schools (which make up 10% of mass shooting sites in the USA) are gendered targets where educated women aggregate and compete with men as equals. Reports suggest females are twice as likely as males to die in school shootings. Furthermore, many recent mass murderers, including Umpqua Community College shooter Chris Harper Mercer, UC Santa Barbara shooter Elliot Rodger, George Hennard, Virgina Tech shooter Seung-Hui Cho, Dylan Klebod, Adam Lanza, Timothy McVeigh, and George Sodini, all expressed feelings of sexual rejection and hatred of women. This has been offered by commenta-

tors as a primary source of their suffering and frustration, which in turn may have led to their crimes and influenced in their target selection (Schonfeld, 2014).

According to reports, 22-year-old Roger "never had a girlfriend, had never kissed a woman nor even held hands, despite his perception of himself as a sophisticated, polite and worldly 'gentleman'" (Diamond, 2014). Similarly, Sodini complained about not being able to find a girl-friend since he was 23 and not having sex for nearly two decades (Diamond, 2014). Sodini was frustrated and confused about his difficulties with women. It is believed that sexual frustration and rejection can incite these men to have strong feel-ings of hatred for women after years of perceived rejection, which in turn can contribute to these events. For these individuals, mass murder is a way to assert the dominance that has been chal-lenged, after sexual rejection and isolation, and to annihilate the target of their rage and frustration. Evidence of this dynamic can be seen in manifes-tos left by these men. In a chilling YouTube video, for example, Elliot Rodger expressed his rage at women who had rejected him and swore revenge against them saying, "I don't know why you girls aren't attracted to me, but I will punish you all for it" (Schonfeld, 2014).

But it is not only "crazy" people who engage in, support, and stimulate mass killings, and that is why we believe it is essential to include pre-cisely the groups excluded by conventional defi-nitions. All killing makes sense from the perspective of the killer, whether they be crazy of sane. Thus, conventional "private" terrorism in all its forms makes sense to the perpetrator (justi-fying the slaughter of innocents in the name of some higher purpose or ideological cause). State-sponsored "public" terrorism makes sense to the perpetrator in a similar fashion (justifying the slaughter of innocents as a "necessary evil" within the larger principle that "the ends justify the means"). But in this case the principle being served is national security at home or "regime change" abroad. We most note, however, that from a pacifist perspective (e.g., in the writings of Buddhist teacher Thich Nhat Hanh) even this very sane kind of justification for mass killing is

thought to be a "delusion." To paraphrase Thich Nhat Hanh, "There is no road to peace, only peace."

By the same token, we are not persuaded that the number of victims should be the key to under-standing "mass murder" if the psychology and sociology of mass killers cannot be differentiated from those who kill one-on-one (or one-on-two or even one-on-three) as the current standard def-inition suggests. In previous studies exploring the distinctions between types of murders and their perpetrators, most researchers focused on the key differences derived from the perpetrators' moti-vations and their reasons for committing murder, rather on characteristics of the event (e.g., num-ber of victims, and weapon used). For example, serial killers can be differentiated from other murderers due to their fixation on violence and killing and the positive psychological and emo-tional response they experience from engaging in violence as a primary motivator to commit these acts. In contrast, the actions of other murderers can better be understood as examples of instru-mental aggression, such as a gang member's motivation to kill to protect economic interests and a terrorist's motivation to kill in order to fur-ther a political or religious agenda. Though there may be some heterogeneity in the motivations of mass killers, they do not appear to be driven by the same factors as other types of killers. The dif-ferences in their motivations can often be seen in their behaviors and expressed sentiments, both prior to the event and also in their explanations of their behavior in the aftermath. The expression of these motives can be understood as "leakage," wherein perpetrators essentially express through various outlets their desire for engaging in vio-lence, such as diaries or journals, drawings or song lyrics, or even in explicitly and publicly made threats. Analyzing these instances of leak-age clearly indicates the motivations behind the actions of mass killers differ greatly from other types of murderers.

Consistent with the idea that it is not only "crazy people" who engage in, support, and stimulate mass killings, it is important to note that studies have found the vast majority of mass shooters, including school shooters, are not men-

tally ill. Instead, Levin and Madfis (2009) explain that mass murderers, both adults and youths, typically have experienced longstanding, chronic trauma, and are largely isolated. For these individuals, an acute event triggers the violent episode. However, Levin and Madfis emphasize the planning that precedes such events. As they explain, a mass murder is not a simple criminal act. Rather, the massacre constitutes the final power-asserting moment of a disastrous and failed existence; thus, it is in the perpetrator's interest that the event be well-planned and achievable.

The planning of such an event is often a lengthy process. In their research, Vossekuil, Fein, Reddy, Borum, and Modzeleski (2004) found that most school shooters create a plan at least 2 days before initiating their attacks. However, others plan for weeks or months prior to carrying out their shooting spree (Levin & Madfis, 2009). This finding rejects the common belief that those who engage in mass murders "snap" and engage in violent onslaughts impulsively and on the "spur-of-the-moment." The portrayal of a mass killer as a madman who suddenly goes berserk without a particular rationale, trigger, or objective is largely misguided. Rather, the majority of those who commit mass homicides have made the decision to engage in such behavior after a culmination of adverse experiences, and they have rationally decided to implement their attack after careful planning. As Levin and Madfis (2013) explain, spontaneity and randomness may be appropriate descriptions for homicidal individuals who genuinely suffer from uncontrollable and overwhelming psychotic delusions and hallucinations; however, this simplistic explanation is fundamentally inappropriate in understanding the psychological and sociological motivations the predict the modern-day mass killing.

## Who Are They?

The obvious starting point in understanding mass killers—no matter what the threshold in terms of the number of victims or the degree to which the

focus is just "private" collective killing or includes mass killing that has "public" sponsorship and/or instigation—is gender (Garbarino, 2015a, 2015b). Why do males do most of the killing? A part of the explanation appears to lie in their biological vulnerability. For example, about 30% of males (versus 9% of females) have a form of the MAOA gene that reduces the levels of an important neurotransmitter; this, in turn, impairs their ability to deal effectively and prosocially with stressful situations (like living in an abusive family or perhaps being bullied at school). Thus, 85% of males who have this genetic vulnerability *and* who live in abusive families (an environment of chronic and severe stress) end up engaging in a chronic pattern of aggression, bad behavior, acting out, and violating the rights of others by the time they are 10 years old. This childhood pattern (officially diagnosed as "Conduct Disorder") is often the gateway to seriously violent delinquency and perhaps murder (leading to that outcome in some 30% of cases, on average). This MAOA vulnerability is part of a larger vulnerability of the male organism. Most disabilities are more common among males than females, and this starts them off in life on the wrong foot socially and psychologically, predisposing them to the kind of marginality that is so commonly found among mass killers of the ordinary type (what we have called those who engage in "private" collective murder).

This genetic vulnerability is part of a pattern for males. But this is only a part, perhaps a small part, of the larger story. Males also tend to be especially immersed in a culture that glorifies *and justifies* male violence (and historically, male violence against females). For example, although there are scientific disputes about the magnitude of the effect, according to meta-analyses conducted by researchers (see Anderson & Bushman, 2001), the effect of TV violence upon aggressive behavior is about as strong as the effect of secondhand smoking in causing lung cancer. Most people who live with secondhand smoke do not get cancer, but living in such an environment increases the risk significantly (being responsible for about 15% of the risk). Males are particularly drawn to this psychosocially toxic form of entertainment (although in recent years females have

increasingly become more involved as images of mass violence has become somewhat more of an "equal opportunity social toxin"). Living amidst a sea of violent images is like living in the smoking section for the brain, but instead of the physical problem of lung cancer the result is the behavioral cancer of violent behavior. Until recently in our history, males were almost exclusively depicted as the authors of violence in these images. It is only recently that some small measure of gender equality in perpetrating violent mayhem has occurred (Garbarino, 2007).

Cultural validation for violence is a vitally important aspect of the dynamics of violence. As a society we often "promote" the various socially toxic cultural messages to which boys and men are exposed—racism, misogyny, the belief that "it is better to be mad than to be sad," and the like. These cultural messages and themes poison male consciousness and may contribute to the finding that, overall, males have higher scores than females on measures of narcissism (Foster, Campbell, & Twenge, 2003). Some males latch onto these scripts as a way to make sense of their lives—their anger, resentment, sense of entitlement, sense of being belittled, whatever it is in their individual or collective case. People die from these socially toxic ideas. In the minds and hands of troubled boys and men they provide the scripts for violent action. And males seem more readily able to integrate the "logical" implications of racism and sexism—indeed *any* ideology—into their behavior, including their violent behavior.

Male capacity to "compartmentalize," and thus act upon "relentless principles" rather than "empathically modulated responses" is legendary. We think this is the source of the observation (noted earlier) that before he killed his victims, the shooter in Charleston, South Carolina appreciated that they were nice people who had been kind to him. But this was insufficient to prevent him from acting on his "agenda." For him, their deaths were "nothing personal, just business," as a Mafia hitman might say to his victims. In his head the nine dead people were a kind of collateral damage, the consequence of a necessary action in his perceived race war (he found valida-

tion for his views in myriad racist websites that function in a fashion similar to the Jihadist provocations to which some "lone wolf" terrorists succumb). As a psychological phenomenon, is this *fundamentally* different from the justification of civilian deaths when a drone strike is used to "take out" an ISIS or Al-Quaeda enemy?

From the perspective of the victim, collateral damage is *damage*, no matter how "justified" it is in the mind, culture, and political system of the perpetrator. The first author encountered this firsthand in Iraq after the first Gulf War in 1991, when he sat with a little boy who had been orphaned when an American bomb missed the bridge near his house and killed his parents. Collateral damage for those who executed the attack, orphanhood for the child on the ground.

These factors are compounded when the issue involves *young* males. In recent decades, neuroscience researchers have demonstrated that human brains do not mature fully until people reach their mid- or even late-20s, for the most part. These immature brains are particularly prone to make mistakes in interpreting the meaning of emotions in others, of judgment, and in assessing the risks and benefits of action. They suffer from problems with both "emotional regulation" (managing emotions effectively and realistically) and "executive function" (making well-reasoned decisions that guide behavior). This contributes to the melodramatic and extreme quality of actions undertaken by ideologically driven young males, a single-minded intensity that often, but not inevitably, softens with age. It evokes the old joke that "a liberal is a radical with a wife and two kids." The first author's encounters with men in their 30s and 40s who committed murders (sometimes with more than one victim) during adolescence evokes precisely this sense of how many young male killers "mellow" due to maturation, education, therapeutic intervention, and spiritual development to the point where they are rehabilitated and transformed sufficiently to be declared "safe" to rejoin the community outside the prison (Garbarino, 2015a, 2015b).

What is more, when young males have had an accumulation of adverse childhood experiences,

the odds increase that they will have problems with both emotional regulation and executive function. That is why wise parents, educators, professionals, and policymakers recognize that kids need to be in a kind of "protective custody" in many ways and in many matters until they mature. Finally, of course, there is the matter of arming troubled young males with lethal weapons. It is the access to guns that makes young men so dangerous, especially when they are troubled, angry, or somehow "crazy." Generally speaking, the most dangerous social actors are teenagers—*male* teenagers—with guns.

Despite growing gender equality with respect to access to guns (culturally and physically), it remains true that males are more gun-identified than females. And it is firearms that make American violent behavior so lethal. Guns make suicide attempts particularly deadly (85% lethal vs. <10% for pills). It is guns in the hands of males that make domestic disputes—mostly violence against women—so dangerous. It is guns that make cop–civilian confrontations so deadly (most of which involve males on both sides). It is guns that make racist ideologies in the heads of troubled young males lead to nine dead bodies in a church in South Carolina, because "guns don't kill people; people with guns kill people." Or more accurately, "*male* people with guns." This provides an overall answer to the question, "Who are they?" and thus serves as a gateway to the specific answers provided by the various attempts to "profile" or "preemptively identify" mass killers.

## Profiles of Mass Murderers

The American Psychological Association (APA) has produced a pamphlet on the "warning signs" for serious youth violence (1999, 2013). Though not an empirically proven predictive risk assessment tool, the website provides a list of "signs" and "factors" that "should alert us to the possibility that an individual may be at risk of violence." Of course it is indisputable that the presence of one or even more than one of these factors does not necessarily mean that a person will be vio-

lent; only a very small percentage of those with multiple risk factors of this sort actually engage in mass killing.

The risk factors and signs outlined by the APA include 11 static, or unchangeable, historic factors, such as a history of cruelty to animals, a history of violent or aggressive behavior, young age at first violent incident, having been a victim of bullying, and a history of discipline problems or frequent conflicts with authority. In addition, the APA also identifies 16 additional factors predictive of potential violence that may be present over time and may escalate or contribute to the risk that an individual will engage in violence given a certain event or activity. These factors include serious drug or alcohol use, gang membership or strong desire to be in a gang, access to or fascination with weapons (especially guns), trouble controlling feelings like anger, and withdrawal from friends and usual activities.

In 1999, the FBI published a threat assessment for school shooters (a particular variant of mass killing). However, like the APA, the FBI cautioned against the overuse of the profile, stating that it should be used only after an individual has made a threat of violence in order to judge the credibility of the threat. Some have criticized the FBI report, stating that the report is vague and includes overly broad warning signs (Ferguson et al., 2001, p. 144). Others have criticized the relatively low number of cases used in developing the profile (Reddy et al., 2001). The report is significant historically in that it was one of the first to profile school shooters, and provides a starting point to a relatively new and underdeveloped field of research. Factors presented in the FBI report included that the individual "was an injustice collector," "dehumanizes others," "lacks empathy," "has an unreasonable interest in sensational violence," "has failed relationship(s)," "has attitude an attitude of superiority," an "exaggerated need for attention," as well as a "closed social group," among other factors (FBI, 1999).

In addition to these reports, during the 1990s and early 2000s researchers began to conduct more and more scientific, empirical studies of juvenile mass murderers and schools shooters to

derive more reliable information on this population and identify more specific risk factors and characteristics. One such example was the research by Meloy, Hempel, Mohandie, Shiva, and Gray (2001) who conducted a descriptive, archival study of adolescent (19 years and younger) mass murderers (those who had intentionally killed three or more victims in one event) to identify demographic, clinical and forensic characteristics. Meloy et al. (2001) found problematic histories characterized by social alienation and problematic social relationships and social withdrawal. Of course, the same can be said of many non-mass killers (Garbarino, 2015a, 2015b), who are often best understood as untreated traumatized children controlling the minds and bodies of adolescents and adults, particularly male adolescents and adults.

In Meloy's study, a significant majority of the adolescent murderers were characterized as "loners" (70%) and a significant number also reported being bullied by others (43%). Many also came from divorced or separated families (37%). In addition, many of the adolescent murderers (44%) were characterized as "fantasizers" (fantasizers were adolescents described as those who had a daily preoccupation with fantasy games, books, or hobbies) (Meloy et al., 2001, 721). What these killers do not have in common with the "regular" who constitute the bulk of the killer demographic is that they are predominantly White. Among the general population of "regular" murderers in the USA, about 50% are African-American (a figure four times their presence in the general population). It has long been a point of speculation about why the disparity exists, and it has been addressed regarding school shooters (DeLeon, 2012; Garbarino, 1999; Newman, Fox, Roth, Mehta, & Harding, 2005; Parker & Tuthill, 2006).

Antisocial and aggressive behaviors were also common; 42% had some history of violent behavior. Some 46% had a history of either self-reported or official arrest (Meloy et al., 2001), and 48% were preoccupied with war or weapons. Interestingly, however, a relatively small portion of the adolescent murderers in the sample (23%) had a documented psychiatric history, and barely any of the murderers in the sample were classified as being psychotic at the time the murders were committed (only two subjects, or 6%, exhibited behavior that would indicate the presence of either delusions, auditory or visual hallucinations, or the loss of contact with consensual reality [Meloy et al., 2001]). Though it could not be determined how many of the perpetrators met the diagnostic criteria for major depressive disorder due to poor documentation, many of the youths demonstrated depressive symptoms at the time of the murders (Meloy et al., 2001).

However, other researchers have reported conflicting results on many of these same matters. For example, in a study conducted by the US Secret Service and the Department of Education, Vossekuil et al. (2001) reviewed 37 incidents of school violence involving 41 students from 1974 to 2000 and found there was considerable variation among students who engaged in violence, so much, in fact, that they argued there was "no accurate or useful 'profile' of students who engaged in targeted school violence" (p. 19). Thus, although previous studies provided evidence that youths who engaged in school shootings and other forms of targeted school violence were isolated and rejected by their peers and frequently had academic difficulties, many of the juveniles in the Vossekuil et al. study demonstrated a wide range of abilities across several domains, including academic performance and their social relationships with peers. However, the findings of Vossekuil and colleagues share commonalities with previous findings, including those of Meloy et al. (2001), that indicate perpetrators of school violence frequently had histories of being bullied or tormented by peers prior to the incident (71%) and typically did not have histories of diagnosed mental illness. Vossekuil et al. (2001) found that only a third of attackers had ever received a mental health evaluation and only 17% had been diagnosed with either a mental health or behavioral disorder prior to the attack. However, they noted that a majority of attackers showed histories of depression as well as histories of suicidal attempts or ideation.

Findings of diversity among mass killing in the form of "school shooters" is consistent with a

model popularized by Gladwell (2015). His analysis relies upon a model of "riots" proposed and elaborated by Granovetter in 1978. In this view (which is supported by empirical research), the instigator of a riot tends to be a floridly antisocial (and perhaps even psychopathic) individual. While the instigator "throw[s] the first stone," each successive stone thrower is less and less motivated by the "evil" intentions of the instigator and his first few "recruits." Those who join in with the "riotous" behavior later may have other motivations and personality profiles. Gladwell applies this model to school shooters, noting that the mechanism for the recruitment of rioters in this case is not face to face experience as it would be with a "traditional" riot, but rather achieved via the Internet. He cites Eric Harris (the instigator of the Columbine mass killing in 1999) as a psychopathic individual, but notes that each succeeding participant in this slowly unfolding "riot" (starting with Eric Harris' partner, Dylan Klebold) is characterized by less and less psychopathic orientation and intent, culminating (in Gladwell's analysis) with young males on the autism spectrum, who may join in as a form of what has been called "counterfeit deviance." Under this model, autism does not cause mass killing, but rather the social and relational style exhibited by persons with autism, when occurring in the context of other risk factors, serves as just one of the pathways that can result in mass killing. This model demonstrates the dynamic effect over time that explains the heterogeneity of these perpetrators.

Thus, original perpetrators may well have antisocial tendencies and psychopathic traits, but "copycat" killers, who have a lower threshold with which to engage in such behavior, may have very different characteristics. This can be seen in the fact that while many of the recent school shooters may cite Eric Harris as a model, the perpetrators often share very few characteristics with their predecessor. Gladwell's model may well be an excellent addition to efforts to comprehend psychological diversity among mass killers, particularly in the modern age, and particularly as a historical phenomenon as differentiated from the commonly applied "copycat" model.

Gladwell's approach seems to augment the very helpful model of the "necessary conditions" for school shooters offered by Neuman and her colleagues (2015). These include: (1) being marginalized, (2) having a special psychological vulnerability to that marginalization, (3) having access to cultural scripts of mass violence, (4) a failure of monitoring systems, and (5) access to guns. Their conclusion is that without these five elements being present, whatever "sufficient" conditions (immediate causes and precipitating events) are effectively disarmed. It is the nature of a "necessary condition" that all it takes is one contrary example, and this is why "male gender" is not included as a necessary condition (there having been one or two female perpetrators).

One impulse among those who have studied and/or conceptualized mass killing has been to assign individuals to discrete and differentiated categories. For example, Meloy and his colleagues (2001) identified five typologies of adolescent mass murderers: family annihilators, classroom avengers, criminal opportunist, bifurcated killers, and miscellaneous. The term "family annihilator" was first used by Dietz (1986) to describe a type of adult mass murder, typically the senior male in a particular household who was depressed, paranoid, or intoxicated at the time of the offense. Using the definition of classroom avenger, originally conceived by McGee and DeBernardo in their 1999 study, a typical "classroom avenger" is a white male, 16 years of age, middle class, living in a suburban or rural community and with a history of attachment difficulties. According to McGee and DeBernardo, classroom avengers appeared outwardly normal but were quite interested in violence and violent fantasies and with no history of actual violent behavior. In addition, homicides committed by classroom avengers were event-triggered; in most cases, homicides were preceded by some form of rejection, either by the youth's peers or by a disciplinary action initiated from an authority figure (McGee & DeBernardo, 1999). Criminal opportunists were those who committed a mass murder during the course of another crime, such as robbery, often in order to eliminate witnesses. Bifurcated killers were "those who

established a lethal bridge between family annihilation and classroom revenge" (Meloy et al., 2001, p. 723). Lastly, the miscellaneous group included adolescents who did not fit into any of the remaining four categories. Adolescents in the miscellaneous group had diverse motives "ranging from sensation-seeking to occult beliefs" (Meloy et al., 2001, p. 723).

Some studies have sought to compare juvenile and adult mass murderers (e.g., Meloy et al., 2004; Palermo & Ross, 1999). However, it remains unclear how similar (or different) adolescent mass murderers are from their adult counterparts. In a comparative analysis of North American adolescent and adult mass murderers, Meloy and his colleagues (2004) found that there were both similarities and differences between adolescent and adult mass murderers in terms of individual characteristics and in the offenses, themselves. They report that 66% of the adult mass murderers and 58% of the adolescent mass murderers made verbal or written threatening states prior to the murders. In this respect, then, they were mostly similar. However, when it came to the role of precipitating events preceding the mass murder there was a difference, with precipitating events being reported among 59% of adolescents and 90% of adults. Most adolescents (81%) knew all of their victims, while only half of the adult mass murders knew their victims. Meloy and his colleagues also found that most of the killers brought multiple weapons, with adults averaging 3.1 weapons and adolescents averaging 2.4 weapons. Not surprisingly, most perpetrators used guns of some kind—it being difficult to commit mass murder with a knife or club, and bombs being out of the skill range of most killers.

Another major difference between adult and adolescent mass murderers can be seen in the number of mass murderers who commit or attempt suicide after killing. A majority of adult mass murderers committed or attempted to commit suicide; in contrast, most adolescent mass killers do not commit suicide following the perpetration of a mass murder (Eric Harris and Dylan Kelbold, perpetrators of the Columbine school massacre, are notable exceptions) (Palermo & Ross, 1999). Reports indicate only 33% of secondary school shooters and 46% of college shooters commit suicide, compared to 73% of adult shooters (Langman, 2015). This has led some to suggest that mass murders committed by adults are akin to a "suicide-by-cop," wherein perpetrators go on a violent rampage with the intention of culminating the event with their death.

This discrepancy may reflect fundamental differences between adolescent/juvenile mass murderers and their adult counterparts. As noted by Palermo and Ross (1999), most juvenile mass murderers do not appear to be suicidal; rather, they suggest the actions of these young offenders appears "to have been part of a conduct disorder with spurts of strong expressions of hostility, which at times called for the killing of others" (Palermo & Ross, 1999, p. 12). Moreover, the fact most adolescent mass murderers do not commit suicide and do not appear suicidal may also speak to their social and moral development. Contrasting juvenile mass murderers to non-criminal juveniles who commit suicide, Palermo and Ross (1999) contend that suicidal youths have weak egos, weak defenses and strong conscience. Hence, when they are dejected or believe they have been rejected by others, they tend to ruminate and express their self-esteem as, "Nobody likes me. Nobody wants me. I am not worthy. I am no good. I am going to kill myself because I don't deserve to be alive" (Palermo & Ross, 1999, p. 14). In contrast, juvenile mass murderers believe they have been wronged, assume a paranoid attitude, and then are able to rationalize their emotions and subsequent violent behaviors. Palermo and Ross (1999) suggest that lacking a fully developed socio-moral conscience, juvenile mass murderers may be unable to fully appreciate the nature, quality, and consequences of their actions, which may account for why these youths "kill others without introjecting their hostility and committing suicide" (Palermo & Ross, 1999, p. 14).

When all is said and done, however, all efforts to "profile" mass killers have not met the tests by which any predictor effort must be judged—

namely, how well does it to in identifying in advance those individuals who actually do go on to commit murder *and* how well does it does in not mistakenly identifying as eventual killers those who in reality do *not* go on to commit murder. In measurement terms, the goal is *simultaneously* to maximize "sensitivity" (picking up on the real future killers) and "specificity" (not identifying as future killers those individuals who do not kill). The challenge is to avoid "missing" those actually on the path to murder and at the same time to avoid "falsely accusing" those who are not. Evaluative research on such screening efforts has revealed generally dismal results on this score because, typically, sensitivity and specificity are inversely related, meaning that as you increase one you tend to decrease the other. For example, since we know that virtually all mass killers are male (estimates typically hover around 95% and can be higher depending on the criteria used [Fox & Levin, 2012; Stone, 2015]), we could achieve a high rate of sensitivity simply by identifying every male as a potential mass murderer. However, since the overwhelming majority (some 99%+) of males do *not* engage in mass killing, such an approach would be an abysmal failure when it comes to specificity. Conversely, efforts that seek to avoid falsely labeling *anyone* as a future killer who is not actually heading down that path (to avoid stigmatization and the violations of civil liberties that might arise, such as in the form of preventive detention) would likely result in unacceptably low levels of sensitivity, in the sense that they would miss identifying most of the future killers in the population being studied.

One existing screening effort to identify future violent behavior has the unique property of simultaneously maximizing sensitivity *and* specificity (Zagar et al., in press). Zagar's approach has achieved both 97% sensitivity and 97% specificity in identifying killers (but has not specifically been addressed to mass killers). It does this through a unique algorithm incorporating a battery of Internet-administered assessment instruments, both of which have been widely available (e.g., the MMPI) and one that was developed by Zagar, himself (Standard

Predictor). These results are far superior that any previous effort, and have already been used as the basis for cost-effective violence prevention. In a Chicago study, the predictive algorithm was used to identify a high-risk population of youth, and a subsequent initiative that included a jobs program, mentoring, and anger management resulted in a 40% decrease in homicide among the targeted group. In this case, the sensitivity and specificity of the predictive model permitted a highly efficient preventive effort with stunning "return on investment." From an actuarial perspective, Zagar's approach is indeed the kind of "Holy Grail" that assessment and predictive models have sought for many decades. Zagar believes his algorithm is effective in identifying individuals at risk for a wide range of violent and antisocial behavior, including mass shootings (although this conclusion is an inference rather than an empirical finding specific to the assessment of mass killers). This approach eventually may yield results that help society, particularly American society, walk itself back from mass killing as a fundamental insult to our identity as a people.

## Conclusion

Mass killing has its roots in disturbed psychological functioning but, like everything else in human behavior and development, it is shaped by social and cultural context. The fact mass killing is so prevalent in the USA calls attention to the need to explore the cultural support for violence in American culture (as evidenced, for example, in the messages that schizophrenics receive in their auditory hallucinations). It calls attention to the insidious combination of widespread availability of firearms and rage in too many young American males. It calls attention to the effect of the Internet in creating "virtual communities" in which the dynamics of "riot" can be operated without the "traditional" need for face-to-face contact. It calls attention to the need to focus our efforts on screening and assessment approaches that offer promise in simultaneously maximizing sensitivity and specificity. Conceptual frame-

works and research on mass killing are becoming available that help us "make sense" of these events as more than an out-of-control social aberration, and see them instead as a sad reflection of the unaddressed social and cultural toxins in American life.

## Appendix: History and Background of Mass Murders: The Role of Youth in the Media and in Reality

In contrast to the sensational reporting of the commercial media, which presents homicides among juveniles as a growing concern, evidence suggests that juvenile violence, including juvenile homicides, has actually decreased over the last few decades. After reaching a peak in 1993, juvenile arrests for murder dropped substantially, falling 71% between 1993 and 2000 (Bureau of Justice Statistics (BJS), 2012). Mirroring overall crime trends, which saw the number of murder arrests in the USA fall by half between 1990 and 2010 (BJS, 2012), the number of juvenile (and adult) arrests rates dropped substantially in the 1990s and continued to fall about 20% between 2000 and 2010, reaching their lowest levels since at least 1990 in 2010 (BJS, 2012).

In 2010, juvenile offenders were involved in an estimated 800 murders in the USA, representing 8% of all murders (Sickmund & Puzzanchera, 2014). Juvenile offenders acted alone in 48% of the murders, with one or more other juveniles in 9% and with at least one adult offender in 43% of the murders (Sickmund & Puzzanchera, 2014). The percentage of cases in which a juvenile committed a murder alone has been in decline, falling 73% between 1993 and 2010 (Sickmund & Puzzanchera, 2014). In fact, in 2010, murders by juveniles were less likely to be committed by a lone juvenile offender than in any since at least 1980 (Sickmund & Puzzanchera, 2014). According to the Sickmund and Puzzanchera (2014), approximately 70% of the overall decline in juvenile murders was attributable to the decrease in murders of nonfamily members by juvenile males with a firearm (p. 75). Contrasted with the typical profile of

juvenile murders at the peak of juvenile homicide in 1994, juvenile murderers (in 2010), were generally older and had a greater proportion of female perpetrators and were less likely to have committed homicide with a firearm (Sickmund & Puzzanchera, 2014).

Homicides in US schools peaked from 1992 to 1993 ($n = 42$), and only 21 were reported from 1998 to 1999 (National School Safety Center, 1999). One exception to this trend, however, appears to be adolescent mass murders. Traditionally a high intensity, low frequency occurrence, juvenile mass murders seem to be occurring with greater frequency (Meloy et al., 2001). Evidence of this can be seen in the increasing occurrence of violent school shootings throughout the 1990s and early 2000s including the Columbine School Shooting of 1999 and Sandy Hook Shooting of 2012.

Between 1996 and 1999, there were six incidents of mass murder in schools that involved at least three fatalities (National School Safety Center, 1999). Despite the wave of school shootings in the mid to late-1990s (Ferguson, Coulson, & Barnett, 2011), mass murder, including juvenile mass murder, is not a recent phenomenon. Reports of school shootings date back to as early as the 1960s, when in 1966 a sniper named Charles Whitman killed 16 and wounded another 30 at the University of Texas (Ferguson et al., 2011). As explained by Ferguson et al. (2011), numerous other smaller shootings occurred both before and after the 1966 mass murder at the University of Texas, however these events did not gain significant media attention. Despite these early occurrences, public concern over juvenile mass murders did not spike until the 1990s following several particularly gruesome school shootings such as the Columbine High School Massacre of 1999. The gruesome nature of these events, including the youthful age of the victims and perpetrators, and intense media coverage led to a moral panic, which some researchers have argued was exaggerated compared to the scope of the problem. As Ferguson et al. (2011) explain, the increase in juvenile mass murders can be attributed to multiple causes, rather than

the product of an increasingly disturbed violent juvenile population. The authors explain that fluctuations in the rate and occurrence of juvenile mass murders (including the apparent increase in recent decades) can be attributed to "fluctuations in very rare phenomena, a certain degree of copycatting, and the tendency to define only certain attention-getting mass homicides as 'school shootings' while ignoring a wider range of incidents, particularly among inner city minority youth …" (p. 143). As Ferguson et al. (2011) caution, juvenile mass murders are still rare and discussions of such events must be considered in light of this rarity (Wike & Fraser, 2009). For example, the appearance of an increasing number of juvenile mass murders may be attributable to an exploding juvenile population. As Ferguson et al., 2011 explain, within the context of a rapidly increasing population, even extremely rare events are bound to become more common in absolute numbers, even if their per capita rate remains stable. Support for this can be seen in the fact that despite media reports and public opinion which often categorize youth violence, including homicides committed by juveniles, as a growing concern, current evidence suggests single homicide shootings in the USA have decreased along with general youth violence rates, while multiple homicides have remained stable across the 2000s (Center for Disease Control and Prevention, 2008). Consequently, numerous scholars have noted that public concern about school shootings may be somewhat disproportionate to the actual rarity of such events (Ferguson, 2008; Killingbeck, 2001; Muschert, 2007; Wike & Fraser, 2009).

Though, perhaps unfounded or exaggerated, the moral panic that followed a spike in juvenile mass homicides and school shootings in the 1990s caused heightened attention to the issue of these events, and the public, policy-makers and government officials sought for answers to explain why the rash of homicides among youth was occurring. Of particular focus were efforts to profile juvenile mass murderers in order to identify potential perpetrators in advance and identify steps that could be taken to prevent such

instances in the future (Ferguson et al., 2011, pp. 141–142).

Despite the importance of research on juvenile mass homicides (and public and political support for more research in this area), most scholars recognize that empirical evidence on school shooters is relatively slim (Borum, 2000; Ferguson, 2008; Hong, Cho, Allen-Meares, & Espelage, 2011; Langman, 2009a, 2009b; Wike & Fraser, 2009). Several factors may account for the apparent lack of empirical research on juvenile homicides. First, as previously discussed, juvenile mass homicides (including school shootings) are a relatively rare phenomena, which means there are few instances to examine and also causes problems for empirical and scientific research which requires numerous cases for ideal science. Moreover, as Ferguson et al. (2001) explain, information on these cases is also rare due to the fact that many perpetrators are killed during their crimes. As a result, a significant amount of information is lost as there is no opportunity to study perpetrators directly. Oftentimes, after incidences of juvenile mass homicides, researchers will seek to retroactively gain information on perpetrators. For example, information will be obtained by examining the perpetrators' records (e.g., school assessments and psychiatric evaluations) or by interviewing individuals who may have known or had close connections to the perpetrator (e.g., family members, teachers, and friends). There are problems with this sort of retrospective research as records may be incomplete or vague. There is also the potential for hindsight bias to occur through questioning proximal subjects, rather than the perpetrator, himself. Despite these issues, numerous researchers have begun to examine cases of juvenile mass homicides in order to identify trends in characteristics that have led to the development of various "profiles" for school shooters and juvenile mass murderers. Although many of these "profiles" have commonalities, there are also differences between them. That said, there is no clear or reliable "profile" of a school shooter or juvenile mass murderer and consequently, many of those who have publicized such profiles have cautioned against the inappropriate use and over-application of these profiles.

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# Maternal Filicide

Joy Shelton and Tia A. Hoffer

## Description of the Problem

Maternal filicide, the murder of a child by his or her mother, is a multidimensional phenomenon with various characteristics, motivations, and patterns. It transcends geographic boundaries, occurring in every country and culture (Friedman, Horwitz, & Resnick, 2005). And, although maternal filicide has been discussed in the medical, mental health, and child abuse fields, little research exists with a criminal justice or law enforcement perspective.

Cases in which mothers kill their children highlight the disturbing reality of the violence that women are capable of committing. In spite of this truth, society still tends to view violence as committed exclusively by males (Pearson, 1997). In fact, historically male aggression has often been encouraged, accepted, and/or condoned. On the contrary, female violence is seen as unfeminine and women often commit violence in private (e.g., at home) against themselves or their children (Robbins, Monahan, & Silver,

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2003; Stangle, 2008). As Pearson (1997) noted, "Women commit the majority of child homicides, a greater share of physical child abuse, an equal rate of sibling violence and assault on the elderly, about a quarter of child sexual abuse, an overwhelming share of the killings of newborns and a fair preponderance of spousal assault" (Pearson, 1997, p. 7).

Only in the last few decades have we begun to understand that female violence has existed throughout history, and that women have harmed their children for many reasons, some of which reveal clear and lucid intent (Motz, 2008; Stangle, 2008). Historically, female aggression, especially toward one's child, has been typically perceived to be abnormal, and the result of a mental disorder (Pearson, 1997; Stangle, 2008). Silverman and Kennedy (1988) suggest that gender stereotypes, such as the tautology that "if they killed their kids they must be crazy," contribute to misconceptions about mothers. Historically, society has often viewed mothers who harm their children as either "mad" or "bad" which limits our comprehensive understanding of maternal filicide. The mad mother is described as afflicted by hormones; the bad mother is afflicted by evil or characterized as selfish, cold, and neglectful of her children or domestic responsibilities, and promiscuous (Wilczynski, 1991). Some argue that psychological perspectives of maternal filicide are often one-dimensional and explain the occurrence as primarily a result of mental illness

(Smithey, 2001). There are studies which conclude that psychosocial stress, rather than mental illness, is the primary cause of filicide (Bartholomew & Milte, 1978; Resnick, 1969, 1970; West, 1966). The presence of significant life stressors, such as financial strain and/or discord/violence within a marriage or relationship, as well as a history of childhood abuse and parental separation, have been noted as common factors in women who kill their children, especially in fatal-abuse filicide cases (Cheung, 1986; d'Orban, 1979; Haapasalo & Petaja, 1999; Marks & Kumar, 1996; Scott, 1973).

## Historical Background

Maternal filicide cases run counter to deeply ingrained views of motherhood and femininity; however, child homicide by mothers has not always been considered a crime worthy of a murder charge (Dobson & Sales, 2000). Illegitimacy, preference for male offspring, physical disabilities, population control, eugenics, religious beliefs, and poverty has been used to explain its occurrence throughout history[1] (Meyer, Oberman, White, & Rone, 2001). Prosecution of maternal filicide also has a rich history of ambivalence and inconsistent approaches. Furthermore, although viewpoints have changed over time and the punishment of mothers became more common, conviction rates remained low in cases wherein the victim was very young.

This precedent for leniency was set many years ago as nations began passing legislation on behalf of maternal offenders with the assumption that childbirth was a time of unique biological change which may lead to mental disturbance (Dobson & Sales, 2000). This sentiment was formalized by the English Parliament in the 1922 Infanticide Act which provided a partial explanation by assuming that infanticide offenders suffered from puerperal (post-partum)

psychosis[2], the most severe form of mental disorder associated with childbirth (Oberman, 1996). In 1938, a modified Infanticide Act replaced the 1922 version and expanded the age of the victim from a newborn child to a child <12 months old. Lactation was added as a medical basis for a mental disturbance, most likely due to the exhaustion that may accompany nursing. Eventually, lactational insanity was discredited, though public sympathy toward maternal offenders continued.

England's Infanticide Act and similar legislation established in many other countries[3] gave formal legal recognition to a biological explanation for infanticide (Friedman & Resnick, 2007; Spinelli, 2003). Today, punishment under infanticide laws has been significantly reduced or eliminated. For example, in Canada, no mother convicted of infanticide has served more than 5 years in prison (Walker, 2006), and the overwhelming majority of infanticidal mothers in England have received probation and counseling rather than prison sentences (Spinelli, 2003).

Although other countries have identified special provisions for these offenders, the USA makes no such distinction (Dobson & Sales, 2000; Kumar & Marks, 1992; Resnick, 1970). Mothers who kill their children, regardless of the victim's age, are prosecuted under existing homicide laws (Dobson & Sales, 2000; Kumar & Marks, 1992; Resnick, 1970), and offenders have been charged with a variety of crimes including murder in the first, second, or third degree, manslaughter, gross abuse of a corpse, and concealment of death (Schwartz & Isser, 2000). American medical and legal experts do not agree on the nature of postpartum mental disorders and their capacity to cause a mother to kill her child(ren)

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[1]Filicide dates back to ancient civilizations such as Mesopotamia, Greece, and Rome, and among the Vikings, Irish Celts, Gauls, and Phoenicians (Meyer et al., 2001).

[2]Puerperal (post-partum) psychosis is an abrupt onset of severe psychiatric disturbance that occurs shortly following birth. It is estimated to occur in 1–4 women per 1000 deliveries. Symptoms include hallucinations, delusions, loss of reality, illogical thoughts and behavior, and possible suicidal or homicidal tendencies (Chaudron & Pies, 2003; Schwartz & Isser, 2006).

[3]These countries included Australia, Austria, Brazil, Canada, Colombia, Finland, Germany, Greece, Hong Kong, India, Italy, Japan, Korea, New Zealand, Norway, Philippines, Sweden, Switzerland, Turkey, and the UK (Friedman & Resnick, 2007).

(Spinelli, 2003). Postpartum disorders do exist, but severe cases like postpartum psychosis are rare (Schwartz & Isser, 2006). Even so, the presence these disorders in any given filicide case does not necessarily indicate the woman is unable to control her behavior and/or did not appreciate the difference between right and wrong (Schwartz & Isser, 2006). However, past studies of filicide cases in this country indicate that even in the absence of US infanticide legislation, society continues to be ambivalent toward mothers who kill their children, especially when the children are young (Marks & Kumar, 1993; Oberman, 1996; Shelton, Muirhead, & Canning, 2010; Stangle, 2008). Several studies have highlighted the variability in conviction and sentencing, as well as the US's history of leniency (Oberman, 1996; Shelton et al., 2010; Spinelli, 2001).

Furthermore, analyses of insanity defenses in the US reflect that a maternal filicide offender's chances of successfully raising this defense in her case is far greater than those of any other criminal defendant (Bourget & Bradford, 1990; d'Orban, 1979; McKee & Shea, 1998). d'Orban (1979) reported that 27% of the maternal filicide defendants in their study were found Not Guilty by Reason of Insanity (NGRI). Bourget and Bradford (1990) reported that 15.4% of maternal filicide cases in their sample resulted in legally insane verdicts. These results indicate that insanity verdicts are much more frequent in maternal filicide cases than in general criminal cases, wherein defendants are found insane only 1% of the time (McKee, 2006).

Even in cases where a mental disorder is not noted, it appears courts take into account the stresses of a mother during her postpartum period and often take pity on her or use rationalization and denial to explain her homicidal actions (Kaye, Borenstein, & Donnelly, 1990; Perlin, 2003a, 2003b). Such actions indicate that there is a belief that mothers should be treated with leniency "simply because they are mothers" (Stangle, 2008). Also, jurors arrive in the courtroom fully loaded with stereotypes and myths about cases involving a mother killing her child stir up notions of femininity, childbirth, and depression (Finkel, 1995a, 1995b, 1996, 1997; Finkel &

Groscup, 1997; Finkel & Sales, 1997; Perlin, 1990; Silver, 1995).

Shelton et al. (2010) analyzed 45 cases of neonaticide and found only one offender who was diagnosed with psychosis; yet, sentencing of the offenders remained relatively lenient. The authors presented several socially constructed factors to explain society's inconsistent legal response to non-psychotic neonaticide offenders, including the mother's reduced culpability, her "redeemable" qualities, and the age of the victim (Shelton et al., 2010).

## Epidemiology

Young children are overrepresented in child homicide statistics, with over three fourths involving children under the age of four (US Department of Health and Human Services, 2009). According to the National Center for Injury Prevention and Control, homicide was the fifth leading cause of death for children under five years of age, and child maltreatment is the cause for almost half of the homicides in young children (Klevens & Leeb, 2010). Children in this age group consistently account for more than 80% of fatal cases of child maltreatment (Klevens & Leeb, 2010; US Department of Health and Human Services, 2009). Children under the age of one year are at an even greater risk for homicide; this is especially true during the first four months of life (Overpeck, Brenner, Trumble, & Trifilliti, 1998). In fact, the first day of life reflects the greatest risk for homicide, with rates at least 10 times greater than at any other time of life (Overpeck et al., 1998). In general, younger children appear to be at greater risk for fatal maltreatment as compared to older children, who more often die from purposeful homicide (West, 2007).

Not surprisingly, child abuse has the most direct impact on the occurrence of filicide, and the frequency with which children die from maltreatment is troubling. A 2009 US Department of Health and Human Services (US DHHS) report stated that over 10,000 children died from maltreatment over a 6-year period from 2001 to 2007, and the number of fatalities has consistently

increased each year, with the exception of 2005. These statistics translate to nearly five children dying every day as a result of maltreatment with one or both parents most often (69.9%) responsible, and mothers acting alone in more than one quarter (27.1%) of the cases (US DHHS, 2009).

Many believe these numbers are grossly underestimated because child abuse fatalities are underreported (US DHHS, 2009). Some studies have estimated that up to 60% of maltreatment-related child fatalities are not currently captured (Crume, DiGuiseppi, Byers, Sirotnak, & Garrett, 2002; Herman-Giddens, Brown, Verbiest, Carolson, Hooten, Howell, & Butts, 1999). Reasons for underreporting vary, but often include the lack of standardized national reporting systems, poor cooperation between investigating agencies, and the challenges of differentiating between inflicted trauma from accidental injury and deaths due to natural causes (US DHHS, 2009).

Additionally, previous filicide studies have highlighted high rates of victim abuse prior to the homicide (Crittenden & Craig, 1990; D'Silva & Oates, 1993; Wilczynski, 1997). For example, Wilczynski's (1997) analysis of nearly 50 cases of both paternal and maternal filicide revealed that half of the victims had been previously abused by the offending parent. Wilczynski also noted that filicide offenders with prior professional contact (e.g., Child Protective Services) were significantly more likely to have been violent toward the child before the filicide, indicating that previous intervention does not necessarily lessen the likelihood of reoccurring violence toward the child (Wilczynski, 1997).

## Characteristics of the Offender

### Neonaticide

Neonaticide refers to the killing of a newborn within the first 24 h of life by a biological parent. In almost all neonaticide cases, the mother is the perpetrator; fathers are rarely known to commit neonaticide as they do not typically possess the same access to newborns as mothers or the unique stressors associated with this crime (Beyer, Mack,

& Shelton, 2008; Koenen & Thompson, 2008; Resnick, 1970). Prior research reveals that neonaticide offenders are typically women who are young, unmarried, of low socioeconomic status, and living with their parents or a relative at the time of the offense (Beyer et al., 2008; Meyer et al., 2001; Resnick, 1969; Shelton et al., 2010). However, more recent literature reveals that neonaticide offenders are of every race, age, and educational level, and marital and socioeconomic status (Oberman, 1996; Riley, 2005; Shelton, Corey, Donaldson, & Hemberger-Dennison, 2011). Women in their 30s and 40s commit neonaticide as do women who are married (Beyer et al., 2008). It appears women from a variety of ages and life circumstances are capable of committing neonaticide in response to a conflicted pregnancy (Riley, 2005).

Women who commit neonaticide share some common psychological features, but most do not suffer from significant mental illness (Cheung, 1986; Dobson & Sales, 2000; d'Orban, 1979; Haapasalo & Petaja, 1999; Meyer et al., 2001; Putkonen, Collander, Weizmann-Henelius, & Eronen, 2007; Resnick, 1970; Shelton, Hoffer, & Muirhead, 2014; Spinelli, 2001). Major psychiatric disorders are rare and it is more common for personality disorders to be reported in neonaticide offenders. Dobson and Sales (2000) indicated that even postpartum blues, which can cause mental disturbance in new mothers, does not play a role in neonaticide, given that it generally begins approximately three days after delivery. Their lack of mental health history is also observed in the relatively low frequency of offender suicidal behavior. Researchers theorize that neonaticidal offenders experience an enormous sense of relief shortly after the offense and have the desire to continue living rather than take their own life (Shelton et al., 2014).

Many neonaticide offenders are cognitively aware that they were pregnant, but often demonstrate magical thinking associated with the pregnancy by having an unrealistic expectation that the pregnancy will "just go away" or they will "think about it tomorrow" (Shelton et al., 2011, 2014). Neonaticide offenders have been described as passive individuals, and their passivity explains

their inability to initiate a plan or seek alternative options for the pregnancy and impending birth (Dobson & Sales, 2000; Meyer et al., 2001; Resnick, 1970). Although offenders typically engage in denial and concealment of their pregnancy, in some cases, others are aware, but it is described as a "pseudo-awareness," whereby others become drawn into the offender's denial surrounding the pregnancy and its outcome. Others close to the offender may have noticed some changes in her physical appearance and suspected that she was pregnant, but when they explored this possibility with the offender, she denied the pregnancy.

Motivation among the neonaticide offenders most often pertains to the fear and shame of having engaged in premarital sex. A recent break up with the victim's biological father, a hindrance to college or career goals, and unknown paternity due to multiple sexual partners is also reported by offenders to be motivating factors. Many offenders are also concerned that their parents, specifically their mother, will be upset with them due to the stigma of illegitimacy. However, fear and anxiety is not exclusive to young, unmarried offenders. Older, married offenders also express concern over the discovery of the pregnancy by others. This concern is less related to illegitimacy and premarital sex, but more often due to the "irresponsibility" the pregnancy represents. For example, in cases where the offender is older and married at the time of the neonaticide, family members and friends may have made statements indicating that the offender already had several children for whom she could not provide proper care (Shelton et al., 2011).

Offenders often describe an altered perception at the time of the birth characterized as lapses in memory, blacking-out, anxiety, fear, pain, feelings of being out of control, detachment, and depersonalization (Shelton et al., 2011; Spinelli, 2001). They commonly give birth alone and in a nonmedical setting, typically in their residence (Shelton et al., 2014). Victims in neonaticide cases are killed in a variety of ways; however, it is more likely that the deaths are a result of inaction by the mother rather than violent outbursts that are more often seen in the killing of older children (Shelton et al., 2011). Asphyxial-related causes are the most common (suffocation, drowning, and strangulation) and are often accomplished by placing the infant in a plastic bag, wrapping the infant in a cloth, delivery into a toilet, or by placing a foreign body into the airway of the infant (Corey & Collins, 2002; Crittenden & Craig, 1990; DiMaio & DiMaio, 2001; Resnick, 1969; Shelton et al., 2011). After birth, mothers typically attend to themselves and do not assess their baby's condition for some time.

During labor and delivery, many offenders are concerned about detection as there are often other individuals within close proximity at the time of the birth and homicide. Many have the opportunity to seek help from others at the time of the offense yet refrain despite the physical pain and fear they were experiencing. Neonaticide offenders can murder the newborn, dispose of the body, clean up the crime scene, and remain undetected by others close by. Many exhibit a physical and emotional resiliency prior to, during, and after delivery as they participate in routine activities around the time of delivery and after the homicide. During delivery, this resiliency is exhibited as they frequently give birth silently and without assistance (Mendlowicz, Rapaport, Mecler, Golshan, & Moraes, 1998; Schwartz & Isser, 2000). Post-offense, some offenders return immediately to their routine activities including attending school, shopping, dancing, or returning to work. A period of recovery typically does not occur and absences from work or school shortly before and after the birth are rarely seen. This resiliency is likely influenced by: (1) the enormous relief they feel after the birth, (2) their desire to live in an unburdened and uninterrupted manner and/or (3) concern that unexplained absences would be viewed suspiciously and increase the possibility that their secret will be revealed (Beyer et al., 2008; Shelton et al., 2011).

## Infanticide

The first months of a child's life appear to be a very vulnerable time with studies reporting that many victims die before reaching 4 months of

age (Overpeck et al., 1998; Shelton et al., 2014). The homicide most often involves personal weapons (e.g., hands or feet) rather than the use of a traditional weapon (e.g., gun and knife) (Jason, Gilliland, & Tyler, 1983; Overpeck et al., 1998). Asphyxiation is frequently reported as the most common cause of death. Victims of infanticide also die from abusive head and abdominal injuries and typically have suffered prior abuse and/or neglect by their mother (Brewster et al., 1998; Friedman & Friedman, 2010; Klevens & Leeb, 2010). This finding is important to note given that in previous studies males have been consistently identified as the perpetrators of abusive head trauma. However, more recent analysis has found that biological mothers are also well represented in fatal abusive head trauma cases (Esernio-Jenssen, Tai & Kodsi, 2011; Shelton et al., 2014).

Common offender characteristics reported among mothers who kill their child within the first year of life include young, undereducated mothers, with more than one child, who are of low socioeconomic status, and who do not obtain timely prenatal care (Beekman, Saunders, Rycus, & Quigly, 2010; Shelton et al., 2014). Young maternal age combined with being unmarried and of low socioeconomic status can leave many mothers unprepared for the emotional and financial demands of raising and caring for an infant and other children. Additionally, many mothers have not yet established good support systems (e.g., marriage and secure intimate partner relationships) (Shelton et al., 2014). Some live with their boyfriend/biological father of the victim; however, these relationships are often characterized as being unstable, dysfunctional, and sometimes violent. As a result, these mothers commonly abuse substances to cope and their substance abuse often precedes a violent interaction with their child (Smithey, 1998, 2001). It has been suggested that the use of substances contributes to infant homicides in two ways: (1) newborns and infants who have been exposed to drugs are typically described as difficult to care for, hard to please, fussy, and lacking good feeding and sleeping patterns; (2) substance use by the mother can lead to impulsivity and aggression,

hampering her ability to control her own behavior as well as an inability to provide routine and structure for child (Cherek & Steinberg, 1987). Their lack of reliable and healthy emotional support combined with other stressors (e.g., poverty, lack of education, joblessness, and additional children) can increase the likelihood of maltreatment because emotional resources should be stable and satisfying if the parent-child relationship is to function within developmentally appropriate constraints (Pianta, Egeland, & Erickson, 1989). In addition, research examining the father's role in child development found, "that the mother's ability to enjoy her infant, and regard [the infant] with affection may be in part a function of the quality of her relationship with her husband" (Price, 1977, p. 7).

Psychological perspectives are often discussed in the infanticide literature, specifically postpartum psychosis. However, other researchers have proposed that although physical hormonal causes are common among offenders in many infanticide cases, traumatic life events and psychosocial stressors are more significant contributing factors (Bartholomew & Milte, 1978; Resnick, 1969; West, 1966). For example, one recent study of law enforcement infanticide cases found that nearly 80% of the offenders did not have a formal mental health diagnosis at the time of offense. In addition, only four offenders were specifically diagnosed with postpartum depression (Shelton et al., 2014). The constant attention and complete dependency that infants require can quickly overwhelm many mothers (Finkelhor & Ormrod, 2001), even when psychopathology is absent. Their frustration and their inadequate coping skills and knowledge of how to handle the demands of infant behavior, reflect that some mothers simply do not adjust well to their postpartum duties and very quickly become overwhelmed with the needs of a young baby. However, frustration is commonly described by many (if not all) new mothers and previous studies have noted that some mothers in the general population experience homicidal ideation or aggressive thoughts toward their children (Jennings, Ross, Popper, & Elmore, 1999; Levitzky & Cooper, 2000). A general study of

mothers found that 70% of mothers of colicky infants had explicit aggressive thoughts toward their infants, and 26% of these mothers had infanticidal thoughts during the infant's episodes of colic (Levitzky & Cooper, 2000). An additional study, which compared 100 depressed mothers with a child under 3 years of age to 46 non-depressed mothers, highlighted that 41% of the depressed mothers had experienced thoughts of harming their children (Jennings et al., 1999).

With impaired judgment, low impulse control, sleep deprivation, and desperation to get their baby quiet, some mothers have thoughts of silencing their baby even through violent measures (Friedman & Friedman, 2010). In interviews of maternal infanticide offenders, common pre-offense scenarios are described that often involved a mother who cannot console her crying child, a child with frequent or prolonged illness, or difficulty in training (feeding/sleeping schedule) (Smithey, 2001). Instead of viewing these events as common experiences of a child's first year, she finds them personally offensive and they challenge her self-perception and capabilities as a mother. Because she is unable to alleviate her child's discomfort, her feelings of inadequacy as a parent are further embedded, resulting in either the mother withdrawing or becoming more forceful. However, these tactics do not reduce the infant's undesirable behavior, but rather increase it (Smithey, 2001). Desperate to quiet them, mothers inflict injuries on their child intentionally in order to stop the child's fussiness or because they were angry with the child for not behaving in the manner they expected.

Other studies have explored the relationship between infanticide and the unrealistic demands of modern motherhood (Smithey, 2001). Some have proposed that societal expectations of motherhood have increased over the past several decades leaving some mothers with an inability to escape feelings of failure, remaining in an intense, stressful, and often escalating situation (Hays, 1998; Smithey, 2001). Others believe that the mother's lack of understanding of her child's development needs is more to blame than any societal expectation that is placed on mothers

(Center of Disease Control, 2011). As an infanticide mother stated, "I now realize there was a lot more to it (raising a child) than I thought. I wanted to do a good job but I couldn't get him (the infant) to do the right things. [What do you mean by right things?] You know sleep all night eat at certain times of the day, that kind of thing" (Smithey, 2001, p. 76).

## Filicide

Mothers who commit filicide (victims 1 year of age or older) are more of a diverse population; thus, generalization is limited. The most common reason for this is the various types of samples (e.g., psychiatric versus correctional mothers) (West, 2007) and the variety of ages among victims (e.g., developmental stages heavily influence case dynamics). For instance, a mother's motivation and the cause of death are often quite different for an 18-month-old child versus a 10-year-old victim. Toddlers and pre-schoolers are completely dependent on their caregivers (usually their parents) to meet all their physical and emotional needs; therefore, homicides early in childhood are more often the result of maladaptive attempts by parents to manage child behavior (Crittenden & Craig, 1990). Filicides of school-age children often present differently, due to meeting significant milestones like talking, toilet training, and their shift toward reliance on their expanding world (e.g., teachers, neighbors, and friends).

Despite these differences, some general conclusions have been consistently reported among filicide cases. Offenders are often in their late 20s, unemployed, have financial problems, are in abusive intimate partner relationships, have conflict with family members, and experience social isolation (d'Orban, 1979; Harder, 1967; Jason et al., 1983; Resnick, 1969). In addition, mothers who commit filicide often report high levels of stress and a lack of social support and resources at the time of the offense (d'Orban, 1979; Goetting, 1988; Resnick, 1969; Wilczynski, 1997). Neglectful and abusive mothers often had problems with substance abuse.

Filicide offenders who kill their school-aged children are more often in their 30s, primarily from middle or upper middle socioeconomic classes, and typically lack a criminal history. Although unemployment is frequent at the time of offense, many offenders are educated beyond high school. For example, in a recent study nearly three quarters of the mothers in the sample with a college degree killed a child over the age of six years (Shelton et al., 2014). Many are married or have been married, although some are separated from their husbands. The combination of divorced and separated mothers indicates that many are living apart from the support system that a marriage provides. Common stressors (often in combination) for mothers who kill older children are financial concerns, marital/relationship problems, and a recent change in family dynamics (e.g., recent move, separation, divorce, and custody changes) (Shelton et al., 2014). In some cases, these recent changes in the household are due in part to her long-standing mental health issues and the self-isolation that typically accompanies severe mental illness. Facing a major life change requiring them to evolve and adapt, many mothers feel even more out of control and uncertain of the future. Altruistic motivations are most common and many involve the killing of multiple biological children during the same event (Shelton et al., 2014).

Compared to offenders with younger victims, many do not have an abuse history with the victim prior to the filicide and their parenting style can be described by others as overly attached or enmeshed with the victim. Collateral interviews after the filicide can reveal that the offenders appeared to be very devoted and involved mothers who sacrificed career and time to meet their child's needs (Shelton et al., 2014). However, close friends may depict a mother who was concerned that she was not doing enough or had still failed her child(ren) in some way. In some case, offenders had confided in another person (e.g., friend, relative, or professional) that they had/were having thoughts of harming their children prior to the filicide(s), indicating the possibility of prior intervention/ prevention (Shelton et al., 2014).

Numerous studies also report high rates of previous mental health treatment, depression, suicidality, and psychosis (Bourget & Bradford, 1990; Friedman, Hrouda, Holden, Noffsinger, & Resnick, 2005). Bourget and Bradford (1990) noted that 31% of parents who committed filicide had a diagnosis of major depression compared to offenders of non-parental child homicide. Mental health issues, particularly mood disorders, can negatively affect parental functioning and capacity with reactions to one's child ranging from withdrawal to intense concern. Depression likely contributes to their disruptive and sometimes hostile relationships with their child(ren) as well as compromising the victim's basic care, emotional stability, and safety. Early emotional deprivation from their own mothers, as well as other forms of abuse may also increase their likelihood of developing depression. Additionally, with decreased energy levels, some mothers simply do not have the motivation to conduct basic parental tasks and various forms of neglect are observed (e.g., physical, educational, medical). In cases where the child is not wanted or is no longer wanted, some mothers transfer their depressive symptoms onto the child and blame the victim for their own difficulties. Unable to control their emotions, physical abuse in the name of discipline can occur. In some cases, the depression is so severe that offenders experience psychotic symptoms characterized by auditory or visual hallucinations and delusions. Common themes are that voices say she is a bad mother and/or the child(ren) should be killed in order to spare them of a perceived suffering (e.g., sinful world, bad mothering, sexual abuse, abnormality) (Shelton et al., 2014).

Bourget and Bradford (1990) noted a high frequency of Borderline Personality Disorder among the filicide accidental-battered child group. Additionally, research has also shown the importance of the offender's own childhood as a factor due to the number of women who had mothers who were unavailable to them due to abandonment, alcoholism, absence, abuse, or mental health problems (Crimmins, Langley, Brownstein, & Spunt, 1997; Friedman, Horwitz & Resnick, 2005). High levels of stress and lack of social support/resources are also common findings in other maternal filicide samples

(d'Orban, 1979; Goetting, 1988; Resnick, 1969; Wilczynski, 1997). In many cases, stressful life events seemed to be present in nearly every aspect of their lives and are not isolated to a specific situation or time frame. In fact, even before having children offenders often are anxious, unpredictable, and sometimes aggressive. Their homes can be described as extremely disorganized, with crises and chaos being nearly a weekly event. With little structure or predictability to their daily lives, the offender's parenting experience can be extremely negative. However, many lack the insight or discipline to put into place consistent schedules (sleeping, feeding, playing) in order to curb their child's behavioral issues (Shelton et al., 2014).

Victims in filicide cases are often young, with an average age of 3 years reported in various studies (d'Orban, 1979; Friedman, Horwitz & Resnick, 2005; McKee & Shea, 1998; Resnick, 1970; Rodenburg, 1971; Rouge-Malillart, Jousset, Gaudin, Bouju, & Penneau, 2005). The most common methods of murder are head trauma, drowning, suffocation, and strangulation (West, 2007). The cause of death (COD) in cases involving younger children is often related to abuse or neglect, even though the victims have lived past the vulnerable first year. Nevertheless, this does not mean that they had not escaped abuse during their first year as many have been previously physically abused by their mother prior to death (Shelton et al., 2014). This irony may be due, in part, to several factors. First, mothers who have unresolved interpersonal issues of trust, dependency, and autonomy are often considerably stressed with the demands of an inherently dependent child. Even so, for some women, the development needs of children during the first year, while demanding and intense, may help to gratify some internal need for attention and acceptance especially in those mothers who lack a cohesive sense of self. It is not uncommon for these mothers to be both overly protective and abusive especially during certain child behaviors, like crying, which can intensify feelings of frustration and anger (Shelton et al., 2014). This can result in insecure attachment between mother and child because the infant's needs are so interconnected

with the mother's and her tendency toward narcissism and self-preservation prevents her from seeing her child's perspective. As a result, as the child ages and becomes more of an individual with changing demands, the mother's parenting experience becomes more negative, resulting in outbursts of frustration, aggression, and even violence. For some mothers this will occur within a few days or weeks of birth, while others experience this after their child's first year and/or during the toddler phase. The frequent histories of maltreatment, child protective services, and/or loss of custody also indicate that insufficient bonding between mother and child is common. Some reject their children to varying degrees or separate quickly and easily from their responsibilities as a caretaker (Shelton et al., 2014). Additionally, financial, emotional, and childcare support from family members is usually concentrated during the transition of the first year of a child's life and may serve as a protective barrier against fatal abuse during this time. However, as the child grows older, the amount of support provided usually wanes and mothers are expected to have established parenting routines without major support from others (Shelton et al., 2014).

When older children are killed they are more often victims of purposeful filicide and more lethal weapons are used (Shelton et al., 2014; West, 2007). For instance, filicide cases involving gunshot wounds and stabbing occur more frequently as the victim's age increases (Smithey, 1998). Kunz and Bahr (1996) analyzed over 3000 filicide cases and found that 60% of victims over 10 years of age died from gunshot wounds or stabbing. In addition, Shelton et al. (2014) noted that over half of the mothers who killed children six years of age or older used fire, firearms, or a sharp force instrument.

Purposeful filicide is typically related to such motivations as personal gain, revenge, or altruism (Shelton et al., 2014). However, one study found that these motivations are not exclusively limited to more lethal weapons (e.g., firearm and knife) (Shelton et al., 2014). Asphyxiation via suffocation and smothering can also be found among filicides that are planned, which suggests that less aggressive methods are not always indicative of reactive

violence (e.g., frustration, crying, and lack of sleep) or limited to victims in the first year of life.

Suicide or suicide attempt by the mother following filicide has been noted in some cases. A 1999 study reported that between 16% and 29% of mothers commit suicide after killing a child and many more make unsuccessful attempts (Nock & Marzuk, 1999). These cases often involve a mother who takes control of a situation in the only way she perceives to be available (Alder & Baker, 1997). The act represents a way to protect the child(ren) and remove them from a real or perceived harm. It is also not uncommon to see child custody disputes occurring at the time of a filicide/suicide (Friedman & Resnick, 2007). Sometimes mothers are so convinced that the child will be harmed in some way by the other parent that they believe the child is better off "in heaven." In other cases, revenge is the primary motivation and the child is killed in order to get back at the father or other relatives. Ironically, in many cases, friends and relatives reported that the offender had a positive relationship with her children and was a good mother. However, many of these mothers believed that filicide was the only option to ensure the happiness of their children (Alder & Baker, 1997). Parents often believe they could not abandon their children when they killed themselves, so the children had to die with them (Alder & Baker, 1997).

Suicide/filicide is more common in cases involving older children and can often involve multiple children being killed (Bourget, Grace, & Whitehurst, 2007). Age of the child may also impact the mother's motivation for the suicide/filicide. Resnick (1969) reported that in suicide/filicide cases involving younger children the mother often feels inseparable from the child and views him/her as a personal possession, whereas older children killed in a maternal filicide/suicide scenario are more likely to be viewed as defective.

## Family Patterns

The interaction between mother and child is an important and dynamic process. The mother is the infant's primary focus and she almost solely meets the child's primal needs. Bowlby (1969, 1982) examined these unique dynamics between mother and child. His attachment theory focused on the importance of proper bonding and how it not only provides for the survival of the child, but is critical for individuation throughout the child's life span. Despite conventional wisdom, attachment and bonding between mother and child is not automatic and does not occur immediately. Rather, it becomes engrained as the result of learned experiences that begin during the first year of life and are repeated daily throughout one's childhood and adolescence (Bowlby, 1969, 1982; Crowell & Theboux, 1995). Another influential factor is the dynamic between the behavior and personality of the child and the caretaker's reaction to the child. This relationship is vitally important to understanding how the child's behavior interacts with the caretaker's deficits. Attachment continues to impact individuals throughout their lifespan and the attachment needs of adults are similar to the needs of infants and children (Bartholomew & Horowitz, 1991). For instance, when adults experience stress they often seek out someone with whom they are attached and comfortable.

From Bowlby's (1969, 1982) initial examination of attachment between a child and caretaker, two main categories of attachment styles were identified to explain the dynamics of this bond—Secure and Insecure attachment. Children with secure attachment are able to cope or self-soothe when their caregiver is unavailable. Upon their mothers return, the child is able to reconnect with her without feelings of anger or anxiety. Securely bonded mothers are emotionally balanced, empathetic, and nurturing, as well as have a better understanding of infants between the first and second years of life. They can anticipate how a situation might affect their child(ren) and adjust appropriately to ensure the child feels safe and comforted (McKee, 2008). Securely attached adults have fewer problems in interpersonal relationships and are described as warm, nurturing and expressive. They are comfortable with and value intimacy and closeness, as well autonomy (Bartholomew & Horowitz, 1991; Solomon & George, 1999).

On the contrary, individuals with an insecure attachment style have a negative perception of either self and/or others, resulting in greater conflicts in their interpersonal relationships. These individuals react to periods of separation with feelings of abandonment, jealousy, and/or verbal and physical aggression. Insecure attachment is associated with anxiety and depression along with other psychiatric symptoms, including alcohol abuse as well as criminal activity (Mickelson, Kessler, & Shaver, 1997; Roberts, Gotlib, & Kassel, 1996; van Ijzendoorn et al., 1997).

Kernberg's *Object Relations Theory* (1976) also may help explain aspects of filicide. Interactions with important people in a child's environment, referred to as "objects," can provoke anger, frustration, or strong feelings of dependence. These feelings can overwhelm children as they begin to recognize that their mothers are more than a source of food. Children over the age of 36 months begin moving from viewing others and themselves as all good or all bad to integrating favorable and unfavorable aspects of individuals (Kernberg, 1976). They begin realizing that the object (mother/other caretaker) who sometimes frustrates them can also meet their needs. When children realize their mothers can be both good and bad, their distress is alleviated, leaving room for love to develop. This is also the time that children begin to develop concern and empathy for others, putting themselves in the other person's position.

However, this mother and child dynamic can become problematic when children never complete this level of development. Traumatic experiences, such as abuse and/or separation from their mothers[4], can create maladaptive responses and destructive impulses. For example, when children are abused by a parent or caregiver they frequently internalize the experience, feel responsible, and blame themselves for causing the negative reaction by the attachment figure. Instead of integrating the good and bad aspects of the

mother, the child splits off the bad aspects of the mother, so he/she can maintain a positive view of the mother or caretaker. When a child does not see another person as a separate being, he/she experiences the other person as a "part object" and not a whole or complete person with their own separate needs and feelings. This occurs when the child focuses on the function of the caregiver, or what the caregiver can give him or her. As a result, this limits one's ability to self-soothe and cope with stress, which can impact the individual's ability to regulate affect. As adults, these individuals find it difficult to develop mature relationships because they are often narcissistically focused and continue to split off bad or good aspects of themselves or others to decrease feelings of anxiety, guilt, and grief, and maintain a sense of control.

Filicide offenders interviewed in the Oberman and Meyer (2008) study were often very dependent on their mothers and appeared to not have successfully mediated the stages of development, such as separation individuation, resulting in unresolved attachment styles. Many of the mothers reported that during their childhood, they experienced a lack of warmth and nurturing from their own mother and the relationship was more often filled with ambivalence and conflict (Oberman & Meyer, 2008). Crimmins et al. (1997) suggested that maternal filicide results from mothers with a damaged sense of self who are often exposed to high rates of parental alcoholism, child abuse, and other violence. Maternal abandonment and abuse could increase anxiety and feelings of emptiness even into adulthood. As a result, some women attempt to fill the emptiness through intimate partner relationships or by having a child of their own, which often leaves them feeling disappointed or abandoned again.

A damaged sense of self can also be attributed to childhood experiences that lacked maternal affection, resulting in intergenerational behavior of *absent mothering*. Two previous maternal filicide studies found that many offenders were "motherless," meaning their own mothers had been unavailable to them due to substance abuse, mental health problems, abuse/neglect, or death

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[4]Some researchers have suggested that physical abuse by maternal figures is more disruptive of healthy child development than physical abuse by paternal figures (Feshbach, 1989).

(Crimmins et al., 1997; Haapasalo & Petaja, 1999). Unsafe and unstable living environments prevent them from developing positive stress management, coping, and resilience during times of crisis (Oberman & Meyer, 2008) and many exhibit an attachment disorder. For women who have unresolved attachment issues, they struggle to fully engage in this caretaker role and may be unwilling to give up being the recipient of care.

Unresolved attachment issues can even be observed during the pregnancies of maternal filicide offenders. For example, a mother's delay or absence of prenatal care may be the first indicator of their inattentiveness to their pregnancies and their ambivalence about becoming mothers. Overpeck et al. (1998) found that mothers who never pursued medical care during their pregnancies were over ten times more likely to commit filicide as those who began seeing their doctor before the second month of pregnancy. Researchers have noted how little attention offenders pay to their pregnancies and how they neglect to plan for even the most fundamental events (Oberman & Meyer, 2008). Their unborn babies tend to be viewed abstractly, rather than as separate beings who would soon demand constant care and love. Once their children were born, the women, who had romanticized about being mothers are confronted by the realities of motherhood and long for a return to their lives before giving birth. Having a child was another attempt to fill the void in the hopes that the babies would love them and meet their needs. In some cases, the constant demand of an infant, who is in a developmentally appropriate narcissistic state, becomes competition. Instead of meeting the mother's emotional expectations, the infant "reawakens" her own childhood trauma and unmet needs (Motz, 2008, p. 24).

In other cases, mothers lack healthy boundaries and are overly clingy and needy of their children. Motz (2008) described these mothers as having no internal sense of herself (i.e., "I don't exist without you"). The child becomes the container for the mother's unwanted feelings. Filicidal women often refer to their children as if they were extensions of themselves or as if they are property (Oberman & Meyer, 2008). Some speak of their children with little affect and typically objectify the child as a part-object. As one offender said, "my kids were my personal doll babies … I wanted to make sure they were the prettiest girls around" (Oberman & Meyer, 2008, p. 80). It appears that for some women there are distinctions between the wish to become pregnant and what it means to bring a child into the world versus what it means to be a mother.

Although attachment styles cannot determine any specific clinical diagnosis, a mother with Insecure attachment style may exhibit poor parenting skills or even abuse (Zeanah, Berlin, & Boris, 2011). As emotional dysregulation[5] is common among individuals with personality disorders (American Psychiatric Association, 2013), the inability to cope with negative affect may result in a mother's inconsistent reactions to her child. Depending upon the mother's mood, the child can react negatively (e.g., crying and disobedience) and feel that the world is unsafe.

## Assessment and Diagnosis

In order to articulate what is perceived as abnormal, it is often assumed by society that the overwhelming majority, if not all, mothers who kill their children are severely mentally ill and exhibiting psychotic symptoms (e.g., hallucinations or delusions) (Pearson, 1997; Stangle, 2008). Filicidal mothers with histories of mental illness and psychiatric treatment are common findings in many studies (McKee, 2006). In a thorough analysis of existing maternal filicide literature, it was reported that the strongest general factors identified among the studies were a history of suicidality, depression, or psychosis, as well as past use of psychiatric services (Friedman, Horwitz & Resnick, 2005). However, previous maternal filicide research has frequently consolidated diag-

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[5]Emotional dysregulation is occurs when the individual is unable to process the pain induced situation, resulting in feelings of anxiety and/or anger (Garber & Dodge, 1991). When this dysregulation becomes chronic it may be indicative of psychopathology defined as an inability to cope with one's feelings or emotional instability.

nostic categories of mental disorders due to relatively small sample sizes. Thus, it is difficult to examine accurate prevalence rates for specific mental disorders among filicide offenders. The literature indicates the most commonly reported psychiatric disorders among filicide mothers are depression, schizophrenia, and bipolar disorder (Bourget & Bradford, 1990; Bourget & Labelle, 1992; d'Orban, 1979; Falkov, 1996; Resnick, 1969; Rodenburg, 1971; Scott, 1973; Shelton et al., 2014).

Contrary to the belief that childbirth causes mental illness, there is research to indicate that some maternal filicide offenders had experienced and/or exhibited signs of mental illness prior to becoming mothers (Bourget & Bradford, 1990; Bourget & Labelle, 1992; d'Orban, 1979; Falkov, 1996; McKee, 2006; Resnick, 1969; Rodenburg, 1971; Scott, 1973). It is likely that certain filicidal women do not become mentally ill because they became mothers, but rather childbirth and motherhood can exacerbate a preexisting psychological disorder among susceptible women. While one cannot dispute the frequency in which mothers are diagnosed with severe mental illness, challenges arise because society often confuses mental illness and responsibility for a crime (Schwartz & Isser, 2006). This type of female violence is so unexpected there appears to be a greater need to attribute other reasons for the violence or "blame shift." Similarly, focus tends to be placed on the mother's mental state rather and less attention is given to the act of murder. For instance, in their examination of the legal outcomes of 948 female homicide defendants in Canada over a 23-year period, Silverman and Kennedy (1988) found that 67% of filicide offenders were declared mentally ill, compared to just 6% of the women who killed their spouses and 9% who killed an acquaintance or other family members.

## Post-partum Mental Disorders

A presumption of the presence of severe mental illness in maternal filicide cases likely has roots in the common belief that a woman who has given birth may have an altered and disturbed mental state for up to a year following the delivery of the child (Spinelli, 2003). In fact, some countries have established a reduction from general homicide to a lesser charge, based on the findings that childbirth is a time of unique biological change which may lead to mental disturbance (Dobson & Sales, 2000). Even so, the presence of postpartum disorders in any given filicide case does not necessarily indicate the woman is unable to control her behavior and/or did not appreciate the difference between right and wrong (Schwartz & Isser, 2006).

In reality, the year following a child's birth is a time when women are more likely to become severely mentally ill. However, there are studies to suggest that hormones do not have a significant impact on women's mental health status (Wisner & Stowe, 1997). Further, there is data that show some filicide offenders are predisposed to mental disorders, such as depression, and their risk of manifesting symptoms is not increased as a result of the birth (Kumar & Robson, 1984). These women would have likely developed the mental illness diagnosis with or without the additional factor of giving birth. The most extreme form of postpartum mental illness is postpartum psychosis (PPP). PPP is rare, occurring in 1–4 cases per 1000 births (Friedman, Resnick, & Rosenthal, 2009). Psychiatric comorbidity can elevate the risk of PPP in susceptible women (Friedman et al., 2009). Because of the high risk of filicide associated with PPP, professionals have recommended that children should be temporarily removed from caregivers with this disorder (Spinelli, 2004). However, PPP can be missed by healthcare professionals because PPP symptoms wax and wane and some women hide their delusional thinking from their families (Friedman et al., 2009).

Even in the absence of psychosis, women are at higher risk of experiencing psychiatric symptoms up to a year following childbirth. Sleep deprivation, fatigue, and adjustments of duties and priorities make welcoming a new baby challenging; thus, the risk of non-psychotic depression in the month after childbirth was threefold (Cox, Murray, & Chapman, 1993) and 10–15%

of women have an episode of major depression in the year after giving birth (Emery, 1985). Interestingly, research has shown that women who develop postpartum psychiatric illnesses commonly have homicidal ideation (Wisner, Peindl, & Hanusa, 1994). However, psychiatrists were surveyed and revealed that many did not specifically ask their patients who are mothers about thoughts of harming their children, but rather generally inquire about homicidal thoughts (Friedman, Sorrentino, Stankowski, et al., 2006) and suicidal ideations. Mothers who are at risk for suicide should be asked directly about the fate of their children if they were to take their own life. In addition, a lower threshold for hospitalization should be considered for mentally ill mothers of young children due to the possibility of a suicide/filicide scenario (Friedman & Resnick, 2007).

For women who do not experience PPP or postpartum depression, many will experience the "baby blues." Studies have found that 50–80% of women experience the "baby blues" most often 4–5 days post-delivery (Wisner, Gracious, Piontek, Peindl, & Perel, 2003). Symptoms include anxiety, unexplained crying, exhaustion, impatience, irritability, lack of self-confidence, and restlessness (Rosenberg, Greening, & Windell, 2003). Most women are able to resolve these emotional feelings successfully without medical treatment (Wisner et al., 2003).

## Personality Disorders and Their Relationship to Violence

Although society commonly views major mental disorders as severe due to symptomatology, such as hearing voices, or delusional behavior, personality-disordered symptoms may not be as easily identified. Specifically, personality disorders are best understood as disorganization of the capacity for affect (emotion) regulation, mediated by early attachments (American Psychiatric Association, 2000; Sarkar & Adshead, 2006) and a number of factors contribute to its occurrence to include childhood exposure to abuse, abandonment, and/or loss (Johnson, Cohen, Brown,

Smailes, & Bernstein, 1999; Johnson, Cohen, Chen, Kasen, & Brook, 2006).

Individuals who are diagnosed with a personality disorder often have significant conflict in their interpersonal relationships with family, friends, and intimate partners as they can be self-absorbed, demanding, clingy, inappropriate, and lack boundaries. Some are described as a "black hole" of needs that can never be satisfied, while others have tremendous fears and anxieties. Some individuals exhibit odd symptoms that make others around them uncomfortable; thus preventing or inhibiting the development of intimacy. Others display dramatic, emotional volatility, or rule-breaking behaviors. Their partners might feel they are being controlled as individuals with certain personality disorders can be quite rigid in their expectations and can be manipulative (American Psychiatric Association, 2000).

There is some support for the theory that individuals with a personality disorder may be at higher risk for aggressive or violent behavior. For instance, research has shown a relationship between women with antisocial, borderline, narcissistic, and histrionic personality disorders and impulsive and acting out behavior (Warren & Burnette, 2012). In some studies, personality disorders have been reported as being more prevalent and often the most frequent diagnosis among child abuse fatalities (Bourget & Bradford, 1990; d'Orban, 1979). Bourget and Bradford (1990) noted a high frequency of borderline personality disorder diagnosis amongst their accidental filicide-battered group. Other filicide studies have highlighted increased rates of chronic child abuse prior to the homicide, indicating problems with impulse control, managing frustration, and empathy deficits which could be consistent with characterological deficits (Crittenden & Craig, 1990; D'Silva & Oates, 1993; Levine, Freeman, & Compaan, 1994; Wilczynski, 1997). However, it is likely that the prevalence of personality disorders among maternal filicide samples is under-reported given that many mothers are not formally diagnosed prior to the offense. This may be due to the fact that many individuals with personality disorders may not seek treatment, preferring to handle their symptoms by self-medicating, often

through substance abuse. In addition, many deny responsibility for their behavioral, affective, and cognitive symptoms and prefer to externalize blame.

Specifically among mothers with personality-disordered characteristics, Splitting[6] can often be exhibited, resulting in the idealization of some and hatred and blame of others, including their own children (Amin, 2008). They may exhibit more anxious or dependent traits and often have poor self-esteem. This could result in the parent not attending to their child's needs for stimulation or the promotion of a child's confidence or self-esteem (Amin, 2008). Their passive behavior may result in the parent's overreliance on the child to take care of the parent's needs. Those parents with more angry or paranoid characterological traits are often mistrustful of everyone and may project blame onto others, including the child, thereby preventing genuine closeness or intimacy.

Additionally, many maternal filicide offenders describe negative childhood and adolescent experiences, which may impact the development of personality disorders (McKee, 2006; Meyer et al., 2001). For example, women in various filicide studies have described caregivers who were unavailable to them during their childhood due to neglect or abandonment (Crimmins et al., 1997; Friedman, Hrouda, Holden, Noffsinger, & Resnick, 2005). Around the time of the offense, many mothers were also experiencing various stressors, such as relationship problems, frequent moving, unstable employment, birth of a child, or death of a loved one (Anderson, Ambrosino, Valentine, & Lauderdale, 1983; Herman-Giddens, Smith, Mittal, Carlson, & Butts, 2003; Lucas et al., 2002). These may be indicative of deficits in a number of different social and occupational areas to include interpersonal relationships, emotional stability, reactivity, impulsivity, and cognitive/judgment abilities.

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[6]The term splitting refers to a defense mechanism in which people resolve contradictory or ambivalent feelings by "splitting" off negative aspects of the object in order to maintain the positive aspects (Vandenbos, 2007).

## Course and Prognosis/Recidivism

Due to the complex aspects of maternal filicide cases, there are a variety of reactions to, and often ambivalent feelings about, these offenders. Since many believe that there is an automatic and sacred bond between mothers and their children, society has an even greater need to understand how and why these cases occur. During our search for answers we often focus on uncovering underlying reasons and/or diagnoses to explain its occurrence, potentially planting the seeds for bias and preconceptions. It is reasonable to presume that most individuals who commit murder have issues and/or problems that might meet DSM-5 criteria for a mental disorder. However, the more relevant questions are how do these symptoms manifest in that individual, and do they impact one's culpability in the crime they committed?

Biases are not restricted to society at large. Professionals in the mental health field can also be influenced by their unconscious expectations and biases (Motz, 2008). In many maternal filicide investigations, various disciplines will be involved, especially in cases where the mother has surviving children (e.g., CPS, family court, law enforcement, and other mental health professionals). In some cases, initially the perpetrator and/or the cause and manner of death are still unknown, but decisions must be made regarding other children in the home who might be in danger of harm. In these cases, information obtained from the law enforcement interview(s) conducted with the offender will benefit the CPS worker, who must determine if the surviving children in the offender's case should remain in the home or should be removed for their safety. Understanding the potential triggers and other underlying motivations on the part of the offender may assist the worker in evaluating if the offender has the capability to care for her children.

As the case progresses through the system, an offender's state of mind, psychological functioning, and/or competency might be brought into question. A mental health professional (e.g., clinical social worker, forensic psychologist, and psychiatrist) may be asked to evaluate an offender

for symptoms of a mental disorder. Conducting forensic assessments of these offenders for the court requires that the evaluator have an understanding not just of the standards of the mental health field from a forensic perspective, but that they have the capability to objectively consider all possibilities in assessing a female offender by obtaining any and all investigative reports and interviews related to the child's death. This allows the mental health professional to better assess the accuracy of the information the mother provides through self-report. Given the subjective nature of psychological evaluations, a combination of a structured forensic interview with valid/reliable psychological tests that measure the accuracy of responses would be most beneficial.

The psychological reports that have been generated in a number of filicide cases encompass a wide range of methods and differences in thoroughness and objectivity. Although it is standard to conduct an interview with the offender, it is reasonable to assume that she has an ulterior motive to minimize or distort certain facts to decrease her exposure or culpability. Many people engage in some impression management throughout their lives and mothers are no exception. Societal views surrounding motherhood can place significant pressure on mothers to *always* be self-sacrificing, loving, organized, and patient, expressing only positive feelings about their parenting experiences. However, even the best of mothers will have moments of frustration, impatience and negative feelings about their children. In addition, mental health professionals may need to compartmentalize their own parenting experiences and be cautious about filtering an offender's actions through their own understanding. For example, assuming the offender is attached to her child and that the child's death was a tragic result of the offender losing her temper. It is possible that the mother was not attached to her child, did not want the child and was relieved when the child was gone. Using objective psychological tests will assist in evaluating the degree to which the offender is presenting herself in a better light, i.e., "faking good."

On the other hand, some offenders may present themselves as lower functioning so they appear severely mentally ill and raise the likelihood of being found insane or incompetent to stand trial. Exaggerating or creating symptoms of mental illness is referred to as "faking bad or malingering." Hence, psychological tests, to include malingering scales, will help an evaluator assess the accuracy of the diagnosis, the offender's ability to understand right from wrong, and whether she can understand the proceedings, and can assist her attorney in her defense. A rather common misconception is that all individuals who are diagnosed with a psychotic disorder do not understand right from wrong. A thorough evaluation could offer additional information to better demonstrate the offender's ability to differentiate and understand the crime she committed. The aspects of an insanity plea are more complex and require the ability to integrate the psychological field with the forensic world as it relates to knowing right from wrong at the time of the offense.

## Treatment

Maternal filicide cases can be extremely challenging to investigate and prosecute. No other type of homicide presents such complex psychological and social dynamics. Convictions and just sentences can often hinge on collaboration among investigators, CPS, and the prosecutor. Despite its rather common occurrence and improved system responses, society's opinions about mothers who kill their children vacillate between outrage and ambivalence. On one end of the continuum, society feels that justice must be served for the loss of an innocent child. On the other end, even in cases without evidence of extensive mental health issues, society believes that something must be terribly wrong with a mother who kills her own child(ren). This notion is likely affected by several societal beliefs, assumptions, and reactions including: (1) the denial of female aggression and violence, (2) our desire for special explanations in these cases, (3) society's instinct to label these offenders as

unmothering or non-mothers, and (4) the tendency to blame shift or transfer some or all the responsibility from the mother to some other source.

## Denial of Female Violence

Women have committed crimes against their children since antiquity and they have done so for a variety of reasons, many of which reveal clear and rational intent. However, misconceptions about female violence and aggression still exist today. As one researcher noted, many believe that women are by nature passive individuals and that "half the population of the globe consists of saintly stoics who never succumb to fury, frustrations, or greed" (Neroni, 2005, p. 59). And although such statements are illogical and absurd when applied to an entire gender, these notions have undoubtedly influenced the legal outcomes of certain filicide cases. In addition, disciplines such as the mental health field can be equally influenced by this misnomer and may lack a comprehensive perspective to incorporate in their assessment and treatment of maternal filicide offenders.

Variations in the expression of anger between the genders might help explain how women's violent behavior often *appears* different from men. Without an acceptable outlet for expressing negative emotion, some women may experience a pattern of over-controlled hostility. This buildup of intense emotion could result in a significant act of violence, which is typically unexpected and inconsistent with prior patterns of behavior. Understanding how the expression or manifestations of anger may be presented differently for men or women can aid the mental health professional treating the maternal filicide offenders. Overcontrolled hostility (OH) may be more difficult to observe due to the less obvious or direct expressions of anger by individuals with OH. Additionally, the offender may fail to recognize the unique precursors of her anger and violence. In addition, the treating mental health professional may need to expand their treatment modalities to best address OH.

## Special Explanations

Our culture often desires and demands special explanations as to why these acts occur; the most common and acceptable explanation appears to be related to psychological impairment of the mother (e.g., mental illness). Historically, negative behaviors exhibited by women, whether legal or illegal, are often explained away through hormonal imbalances and can be attributed to histrionic, depression, or anxiety-related disorders. Society makes greater attempts to search for reasons underlying the violent act in order to understand why a female offender would commit such an egregious offense. It is important for the mental health professional to be cognizant of what symptoms of mental illness will adequately meet the criteria for a mental health diagnosis. They should be accurate in their use of diagnosis and should not assume that all maternal filicide offenders are mentally ill.

An additional challenge is explaining a mother's motivation or reason, which can often be unsatisfying. Misconceptions exist that most maternal filicide offenders kill for extraordinary or bizarre reasons. However, many children are killed because they were never desired or were no longer wanted. In a society that believes that mothering is automatic, being unwanted is often a hard-to-accept motivation. In addition, presenting evidence of an unwanted victim often means highlighting a lack of behavior on the mother's part over an extended period of time (e.g., showing a jury what did not happen during this child's life, as well as what did). Illustrating the significance of the absence of something can be much more difficult than proving the importance of more overt statements or obvious behaviors.

## Non-mothers

Reactions, both legally and culturally, illustrate society's instinct to label maternal filicide offenders as unmothering or non-mothers. However, in reality, most maternal filicide offenders are not that different from mothers who do not kill their children and investigations often reveal that

offenders had a history of both good and bad parenting moments. Nevertheless, society is intolerant of these two concepts coexisting comfortably due to myths and idealistic expectations of motherhood. Most people want a clear delineation between those who would harm their children and those who would not.

When society is presented with the co-occurring yet contradictory events of good mothering moments and filicide, the typical reaction throughout history is to assume mental pathology is to blame. It is the missing piece that connects two previously incompatible parts and helps us make sense of something that is perceived to be unexplainable. The assumption of mental illness not only assists in distancing ourselves from the offender, but also allows the child's death to be considered more of an isolated incident. The alternative would infer that other mothers may be capable of committing filicide and suggests a more pervasive problem.

In some cases, there is an assumption that the presence of good mothering moments was tangible evidence of attachment between mother and child and has the potential to complicate prosecution. However, some filicidal mothers are motivated to provide proper care to the child, even in the absence of attachment, because of their narcissistic tendencies and for impression management. This distinction between proper care of a child due to attachment or narcissism can be an important one to make. Behavioral indicators of the mother's motivation can include the offender's need for attention and/or desire for her good parenting to be observed by others or if she provides proper love/care even when alone with the child. In addition, financial and/or childcare support from others (e.g., offender's parents and other family members) may have recently stopped or significantly diminished and its absence or reduction affected the victim in a negative way. For example, victims may be generally well-cared for by their mother, but shortly before their deaths others observed changes in the child's physical or emotional well-being. Upon closer examination, investigators may find a recent change in family dynamics (often the offender's choice) either due to a recent move out of a family member's home or a dispute with parents/intimate partner. This change often places greater demands on her finances and lifestyle as well as requires the offender to spend more time with the child. Hence, mental health professionals who will be evaluating and/or treating maternal filicide offenders should have a thorough understanding of and assess for potential attachment disorders often seen in these cases. In addition, they should integrate attachment issues and potential mental health issues.

## Blame Shifting

Blame shifting, the transfer of responsibility from the mother to some other source, can also affect our legal response in maternal filicide cases. It can be directed at a mother's financial difficulties, diminished mental capacity, as well as the moral climate, reproductive rights, and medical/mental health systems. It is most often effective in cases involving very young victims and youthful and dependent mothers (e.g., living with parents, student) because society feels more responsible for children and, to a lesser degree, teenagers and young adults. Blaming an offender's upbringing, her parents, or society-at-large can become a central focus of the case, resulting in the court focusing less on her responsibility and sharing or shifting the blame to some other entity. Successful prosecutions using behavioral and medical evidence have highlighted that the death of the child was due to the offender's choices over the preceding months rather than an uncharacteristically impulsive act. Furthermore, mental health professionals may continue to shift blame to others during treatment and may not address the offender's culpability in the death of her child.

Despite its rather common occurrence, society's opinions about mothers who kill their children vacillate between outrage and ambivalence. Faulty assumptions regarding the hormonal side effects of childbirth and misconceptions about female aggression or violence are likely the major contributors to the disparity in legal outcomes and society's inconsistent responses (Shelton et al.,

2010; Stangle, 2008). On the one end of the continuum, society feels justice must be served for the loss of an innocent child. On the other hand, even in cases without evidence of extensive mental health issues, society continues to believe that something must be terribly wrong with a mother who kills her own child(ren) (West, 2007).

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# Homicide-Suicide

Vera A. Klinoff

Homicide-suicide (H-S) is a category of interpersonal violence, whereby a person commits suicide after perpetrating a homicide of one or more persons (Barraclough & Harris, 2002). Although their incidence is low relative to other violent acts, homicide-suicides are considered a public health concern, as they typically involve more than one member of a family, and have been found to often target children (Adinkrah, 2003; Violence Policy Center, 2012). In some cases, there are survivors/witnesses of these incidences (e.g., children left parentless) (Adinkrah, 2003), who go on to bear severe psychological and behavioral consequences as a result of the trauma (Sillito & Salari, 2011). Indeed, H-S events impose widespread suffering affecting the individuals involved, their families, and the community. Developing a model unique to H-S incidents requires careful evaluation of known psychosocial, medical, economic, cultural, developmental and psychiatric variables that have the highest correlation with predatory violence (Goranson, Boehnlein, & Drummond, 2012). Within the H-S literature, select populations have been identified as being at an exceptionally higher risk for involvement: couples with intimate partner violence (IPV), individuals involved in family court cases, older adults, and law enforcement officers. Studies have revealed unique precursors and dynamics within each of these populations that increase risk them for this type violence.

The purpose of this chapter is to: (1) define and provide typologies of existing homicide-suicides, (2) examine populations that are at a higher risk of being involved in a homicide-suicide incident, (3) discuss existing interventions that may aid in reducing these events, and (4) make suggestions for future prevention. This narrative is addressed to professionals who may encounter populations at risk for homicide-suicide involvement, such as health and mental health professionals, first responders, and case managers. Additionally, it is dedicated to public agencies that can affect positive change through evidence-based policy making.

## Statistics

The estimated prevalence of homicide-suicide in this country is between 1000 and 1500 per year, comprising 5% of all homicides committed in the USA (Violence Policy Center, 2008). However, statistics regarding this event are difficult to establish and are likely under-reported, as they are often classified as homicide or suicide alone by many police departments (Palermo, 2009).

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To date, no comprehensive national tracking system exists that documents the number of homicide-suicide-related deaths in the USA or abroad. However, there have been efforts by the Center for Disease Control (CDC) and the Violence Policy Center to track homicide-suicides. Although the CDC's National Violent Death Reporting System (NVDRS) has initiated efforts to collect data on homicide-suicide nationwide, it currently obtains information from only 32 participating states, limiting generalizability. The Violence Police Center (VPC) is a nonprofit agency that has been gathering, analyzing, and reporting incidence rates specifically for homicide-suicide through the news articles since 2002. According to the Violence Policy Center (2008), at least 11 homicide-suicide incidents occur in the USA per week. In 2015, it found that the states with the highest number of H-S events in 2014 were Texas, California, and Florida.

## Definition of Homicide-Suicide

When referring to H-S incidents, the definitions, time-frame criteria, and terms used vary significantly throughout the literature, which often presents a challenge when operationalizing this phenomenon. For example, Felthous and Hempel (1995) considered a few days between the homicide and subsequent suicide an appropriate criterion; Marzuk, Tardiff, and Hirsch (1992), up to 1 week, and Allen (1983), up to 3 months. Additionally, time ranges are not specified in most of the studies examining H-S incidents, as they often go unreported.

The terms used for H-S include homicide-suicide, murder-suicide, dyadic death, and murder followed by suicide. For purposes of this chapter, the term *homicide-suicide* is utilized, rather than *murder-suicide, or dyadic death*, which are also found in the literature. The reason for this is that the term *murder* is legal in nature, entailing varying criteria, stemming from due process of fact finding, and in some cases including questions of criminal responsibility; *homicide* is devoid of legal connotations, and therefore, more objective. Hence, for the sake of

objectivity, clarity, and brevity, the term *homicide-suicide* is utilized here.

## Homicide-Suicides: Homicidal, or Suicidal?

There are divergent views in the literature regarding homicide-suicides, where they are viewed as a variation of their homicidal or suicidal behavior. This distinction is important to explore, as it affects the conceptualization and subsequent intervention efforts. The former view argues that the suicide stems from feelings of guilt, shame, or judicial consequences related to the homicide (Stack, 1997). In the latter view, homicide-suicide is observed as predominantly suicidal in nature, where the homicide victim is considered an extension, or "taken along" in the offender's suicide (Milroy, 1993; West, 1965). There are challenges in clarifying which of these conceptualizations is more fitting to characterize homicide-suicides. For instance, few studies have compared homicide-suicides to homicides and suicides. Additionally, due to the nature of homicide-suicides, victims and perpetrators typically die in these events. As a result, data sources are usually epidemiological/descriptive, retrospective, and/or lack detailed information. However, some homicide-parasuicide studies have been conducted (Liem, 2010; Liem, de Vet, & Koenraadt, 2010; Liem, Hengeveld, & Koenraadt, 2009), which have yielded valuable information directly from the offenders. Findings from these studies suggest that H-S incidents should not be conceptualized as variations of suicides or homicides, but rather, as a separate entity altogether, which supports conclusions of several investigators (Cooper & Eaves, 1996; Marzuk et al., 1992; Starzomski & Nussbaum, 2000).

## Background: Homicide-Suicides

### Classifications

Several classifications of H-S pathways have been posited in the literature to further clarify the motives and processes underlying these

incidences. Harper and Voigt (2007), Marzuk et al. (1992), and Stack (1997) have advanced typologies mostly grouped by motivation, and some by type of relationship between perpetrator and victim. Marzuk et al. (1992) and Harper and Voigt (2007) proposed comprehensive classification systems categorizing H-S by type of victim-perpetrator relationships and by class of common precipitants or motives. The classified types of homicide-suicide incidents include: (1) *spousal homicide-suicide*, resulting from either amorous jealousy or declining health; (2) *filicide-suicide*, usually involving parental killing of children; (3) *familicide-suicide*, in which the majority of a family is killed; and (4) *extra familial homicide-suicide* which includes mass murder and suicide bombings (Marzuk et al., 1992). There is significant overlap between the classifications proposed by Marzuk et al. (1992) and Harper and Voigt (2007); therefore, they will be integrated under the typologies below.

## Amorous/Jealousy Type

The most common of these categories is spousal homicide-suicide occurring in the context of an intimate relationship, where the perpetrator kills a recently estranged romantic partner (Bossarte, Simon, & Barker, 2006; Eliason, 2009; Felthous & Hempel, 1995; Malphurs & Llorente, 2006; Marzuk et al., 1992). It has been referred to as intimate or domestic/lethal violence-suicide by Harper and Voigt (2007). It has been estimated that one-half to three-fourths of all H-S in the USA fall under this classification (Allen, 1983; Palmer & Humphrey, 1980). Along these lines, a significant number of homicide-suicides have been initiated by an episode of "rage, jealousy or paranoia," triggered by real or perceived termination of the relationship (Brett, 2002, p. 15). Approximately 33–75% of all H-S involve a male perpetrator who suspects his partner of infidelity (Marzuk et al., 1992), and 57% involve separation as a driving factor (Cooper & Eaves, 1996). Indeed, Harper and Voigt (2007) noted that these homicides were consistently more brutal than the others, indicating a level of rage not seen in all classifications of H-S. Perpetrators who commit homicide-suicide have often been found to have a preoccupation with power and control over their intimate partners, along with significant dependent tendencies and personality characteristics (Liem & Roberts, 2009; Liem et al., 2009).

## Spousal Declining Health

The second type of spousal homicide-suicide occurs in the context of ill-health, hopelessness, and old age, where a caretaker/spouse (usually an older male perpetrator) kills his ailing loved one and then commits suicide (Bourget, Gagné, & Whitehurst, 2010; Cohen, 2003). Financial pressures and/or deteriorating medical conditions of either the victim or the perpetrator often serve as the impetus of the act. The perpetrator tends to have feelings of impotence, helplessness, and frustration related to his and/or his partner's condition, and believes that he can no longer continue as the provider (Nock & Marzuk, 1999). In cases such as these, the primary motivation for murder is altruistic in nature, aimed towards the protection of the victim from his/her ailment, as well as life without the caretaker after his suicide. Thus, this type of H-S seems to fit the "extended suicide" model posed by several authors (Berman, 1979; Palermo, 1994) where the murder is viewed by the perpetrator as a mercy killing. This typology merges with Harper and Voigt's (2007) "mercy-killing" classification of H-S, where he described elderly persons suffering from multiple ailments who fear they can no longer take care of, or be taken care of, by their loved one. Additionally, double-suicides may be seen under this category, which are often motivated by the couple's avoidance of separation due to physical illness, or their belief of reunion after death (Rosen, Kaminski, Parmley, Knudson, & Fancher, 2003).

## Filicide-Suicide

Filicide-suicide refers to the murder of a child by their parent, followed by a suicide. In the USA, at least half of all filicides are perpetrated by a parent, most commonly the mother (Friedman, Hrouda, Holden, Noffsinger, & Resnick, 2005). While strangers that kill children rarely commit suicide, parents who murder their own children

commit suicide at notable rates (16–29% of mothers; 40–60% of fathers) (Bourget, Grace, & Whitehurts, 2006). Accordingly, the most commonly found subtypes among filicide-suicides are maternally and paternally perpetrated murders of children between one and 16 years of age. The most common filicide methods employed by mothers are drowning, suffocating, beating, gassing, and defenestration (i.e., throwing out the window), while fathers tend to use firearms, stabbing, beating, and kicking (Adelson, 1991; Myers, 1970; Resnick, 1969; Rodenburg, 1971). Mental health problems, such as depression and schizophrenia, have been associated with filicide-suicide (Resnick, 1969) and commonly involve delusions related to saving the child (Resnick, 1969; West, 1965).

## Familicide-Suicide

Familicide-suicide involves the murder of all members of the household by one member of the family (sometimes two in conjunction), followed by his/her subsequent suicide (Nock & Marzuk, 1999). Familicide-suicide is less common then spousal amorous-jealousy, filicide-suicide, or the declining health subtypes, but often contains elements from all of them. The perpetrator of these types of incidents often fits the profile coined by Dietz (1986) as the "family annihilator…the senior man of the house who is depressed, paranoid, intoxicated, or a combination of the three" (p. 482). In fact, this category was termed family-annihilation-suicide by Harper and Voigt (2007), where they described a planned action on behalf of the head of the household who perceives that the family is in financial ruin and would be better off deceased.

When comparing male and female perpetrators of this H-S classification, mothers tend to isolate harm to herself and her children (Daly & Wilson, 1988), whereas a father typically kills his entire family, including his spouse, during familicides (Daly & Wilson, 1988). Common elements identified among cases of paternal perpetration of familicides were a chronic depressive state and a persistent pattern of marital discord, including arguments about infidelity and financial hardship.

Notes left behind by individuals who have murdered their entire family before committing suicide have suggested that perpetrators perceive their motives as altruistic, as they many times believe that they are rescuing their family from continued suffering/hardship/humiliation (Daly & Wilson, 1988). Many times, variables converge and precipitate these acts, such as marital discord, financial hardship, and declining health (Nock & Marzuk, 1999).

## Extrafamilial Homicide

The last subtype described by Marzuk et al. (1992) is extrafamilial homicide-suicide, where a typically disgruntled individual murders several people in an isolated incident after experiencing some form of rejection or humiliation. Victims in these cases may include friends, employers, police officers, and innocent bystanders who happen to be present. Harper and Voigt (2007) termed this classification as public killing spree-suicide, and described it as a workplace or school shooter who is disgruntled and is characterized by personal crisis or sudden loss. Since most murder-suicides occur in domestic contexts, and incidents including an unrelated perpetrator and victim are rare, this chapter will focus on the discussion of domestic or family-related H-S.

## Risk Factors

Several studies have focused on demographic, sociological, and psychological variables that may precipitate H-S incidents. A burgeoning body of literature has identified a series of risk factors that warrant further attention.

## Perpetrators and Victims

Homicide-suicide incidents are usually perpetrated by older Caucasian males (Malphurs & Llorente, 2006; Marzuk et al., 1992) with no arrest history (Berman, 1979; Palmer & Humphrey, 1980). The victim is typically the offender's wife or romantic partner. Banks, Crandall, Sklar, and Bauer (2008) found that

intimate partners involved in H-S events were twice as likely to have a former or current spousal relationship than those involved in homicide alone. Additionally, increasing age has been identified by several studies as a risk factor for depression (Blazer, 1993) and suicide (Szanto et al., 2002); therefore, age may be an important element to examine in potential cases (Banks et al., 2008).

Coinciding with this contention, the offender is generally older than the victim (Byard, Veldhoen, Kobus, & Heath, 2010; Eliason, 2009; Violence Poliicy Center, 2012). Further, H-S perpetrators were found to be significantly older than homicide-only offenders (Bourget et al., 2010; Dawson, 2005; Liem & Nieuwbeerta, 2009). Additionally, premeditation has been found to be more present in cases of H-S when compared to nonsuicidal homicide cases; however, it has been well documented that H-S perpetrators are not likely to have a criminal record or disciplinary problems at work (Dawson, 2005).

## Mental Health History

Estimated rates of psychiatric disorders in H-S perpetrators range from 20 (Allen, 1983; Milroy, Dratsas, & Ranson, 1997) to 75% (Lecomte & Fornes, 1998; Rosembaum, 1990). Coid (1983) found that there was twice the variance of psychiatric disorders in H-S cases as compared to ordinary homicides; considering this, he speculated that H-S contains a mixture of mentally normal and abnormal homicides. A limitation in studies examining mental health issues in H-S is that data are usually retrieved in an unsystematic way from sources (e.g., news articles) that may report mental health information inconsistently.

There is overwhelming evidence that depression is a salient psychiatric antecedent to homicide-suicide perpetration; this is not surprising as depression occurs in more than 50% of suicide victims (Prevention, 2006). In fact, Marzuk et al. (1992) stated, "the most convincing, unifying diagnosis common to all subtypes of murder-suicide is depression" (p. 27).

According to a review by Roma et al. (2012), depression was the most frequently reported psychiatric illness in H-S perpetrators across 20 studies (39% of perpetrators). This was supported by several studies finding histories of major depression in H-S perpetrators (Bourget, Gagné, & Moamai, 2000; Eliason, 2009; Liem et al., 2009; Rosembaum, 1990).

Moreover, perpetrator suicide threats and related behaviors emerged as a risk factor unique to H-S when compared to nonsuicidal homicide (Koziol-McLain et al., 2006). Liem et al. (2009) found that one third of homicide parasuicide—attempted but not completed suicide—perpetrators committed one or more suicide attempts prior to the event. Also, the study found that homicide-para-suicide offenders were also more likely to suffer from depression than homicide-only perpetrators; in fact, the presence of depression raised the odds for a parasuicide following a homicide by 15 times.

There is sparse evidence for the presence of thought disturbance in homicide-suicide perpetrators. In a literature review of mental illness in H-S by Roma et al. (2012), psychosis was reported in 17% of perpetrators across 11 studies. According to Marzuk et al. (1992), many H-S perpetrators may experience delusional jealousy. According to Liem et al. (2009) the presence of a psychotic disorder was found to be predictive of H-S perpetration.

There is also conflicting evidence of personality disorders and/or substance abuse in H-S offenders. Starzomski and Nussbaum (2000) noted evidence of paranoid and borderline personality traits in perpetrators of H-S; and Liem et al. (2009) found the presence of unspecified personality disorders as predictive of homicide-parasuicide events. Marzuk et al. (1992) demonstrated alcohol and substance abuse as viable predictors of homicide-suicide incidents. Conversely, Rosembaum (1990) found that H-S perpetrators were less likely to have a personality disorder, substance abuse disorder, or to have been under the influence at the time of the incident when compared to perpetrators of homicide only.

## Firearms

Firearms are by far the most common weapons of choice in these incidents (Allen, 1983; Flynn et al., 2009; Large, Smith, & Nielssen, 2009). For example, Bossarte et al. (2006) found that firearms were used in 82.7% of homicides and 80.4% of suicides in the 209 H-S cases they examined. The Violence Policy Center (2015) found that firearms were used in 93% of the 282 homicide-suicide cases evaluated. Additionally, the use of a firearm was found to occur significantly more in H-S cases (89.1%) when compared to homicide only cases (44.9%). These findings were echoed by Koziol-McLain et al. (2006), who found 81% firearm use in H-S cases, versus 25% in homicide only cases.

## Intimate Partner Violence (IPV)

A substantial majority of H-S cases occur in spousal or otherwise intimate partnerships (Campanelli & Gilson, 2002; Comstock et al., 2005). Further, they are generally committed in the context of intimate partner violence (IPV) (Harper & Voigt, 2007) in the home (Eliason, 2009; Felthous & Hempel, 1995; Malphurs & Llorente, 2006; Marzuk et al., 1992; Palermo, 2010). Indeed, IPV has been identified as the most salient precursor to H-S (Eliason, 2009; Violence Policy Center, 2008, 2015).

## Protective Factors

While it is important to consider risk factors of H-S involvement, examining protective factors may be helpful in identifying values to instill in preventive efforts. Malphurs, Eisdorfer, and Cohen (2001) found that having no access to guns was protective in nature. Further, having low aggression and/or impulsivity was found to be a protective factor. Additionally, having social support whether it stems from family, friends, or work-related relationships have been found to serve as a buffer against such incidences.

## At-Risk Populations

### Individuals Involved in IPV

Intimate partner violence (IPV) has been well documented as the most important and predictive risk factor of H-S (Bourget et al., 2000; Campanelli & Gilson, 2002; Eliason, 2009; Koziol-McLain et al., 2006; Violence Policy Center, 2008). Koziol-McLain et al. (2006) examined H-S cases through a record review and collateral informant interviews. They found that 72% of cases contained evidence of domestic violence by the offender within a year prior to the incident.

Starzomski and Nussbaum (2000) concluded that the relationship between H-S offenders and their victims are often characterized by chronic (e.g., physical abuse, stalking) and/or acute (e.g., estrangement) elements. In fact, it has been found that H-S events commonly occur following an estrangement in relationships, where the offender physically abused his partner over time (Campanelli & Gilson, 2002; Rosembaum, 1990). The theoretical explanation that fits these findings would be reminiscent of a perpetrator motivated by power and control, jealousy, or as a result of an anticipated or realized estrangement. Another potential theoretical explanation is related to partner "proprietariness" (Koziol-McLain et al., 2006), or a pathological possessiveness that deals with power and control (Campanelli & Gilson, 2002; Cooper & Eaves, 1996; Rosembaum, 1990). A statement noted across the literature capturing the drive of the perpetrator is: "If I can't have you, nobody can"; however, this position also characterizes intimate partner homicides without suicide (Koziol-McLain et al., 2006). As stated by van Wormer (2008, p. 48), "he kills her because he (obsessively) 'loves' and wants to possess her." Further, Liem et al. (2009) found that uroxide-parasuicides (i.e., the perpetrator kills his wife and attempts to kill himself) were most commonly committed out of a reported fear of abandonment, or a "narcissistic rage" (p. 506).

Homicide-suicide perpetrators appear to surpass domestic homicide-only perpetrators in the

level of: (1) expressed jealousy (Dawson, 2005), (2) controlling behaviors (Koziol-McLain et al., 2006), and (3) name calling (Koziol-McLain et al., 2006). Further, various forms of threatening behavior by the perpetrator preceding the incident were identified as common in H-S cases, including threats to kill the woman, threats to kill the family, threats with a weapon, threats to take the children, and stalking behavior (Koziol-McLain et al., 2006). In the same study, physical violence was noted to have increased in frequency and severity among H-S cases, including commonly reported choking/strangulation and forced sex. Disturbingly, an order of protection was placed by the victim leading up to the incident in 22% of the cases examined.

## Family Court

Family court is an umbrella court that handles many legal issues that pertain to the family unit. These issues include marriage, divorce, child custody, child support, parenting rights, and child abuse or neglect. While ultimately family court is a court of equity (Walker, personal communication, August 18, 2014), the laws governing family court have been dramatically evolving since the nineteenth century, particularly in the areas of child custody and child abuse or neglect.

The current prevailing presumption of the courts is that both parental units are important and that the best interest of the child is joint custody (Walker, personal communication, August 18, 2014). Furthermore, in the twentieth century, the right for fit parents to make decisions in regard to the care, custody, and control of their children became a constitutional right which is consistent with one of the fundamental concepts of the family being that the government does not, for the most part, intervene in its affairs (Grossman & Friedman, 2011).

That fundamental concept disappears when the family fails to provide bare minimum standards for their children, via abuse or neglect, at which point the state can then take over as *parens patriae* (Grossman & Friedman, 2011). Child

abuse is defined in the Federal Child Abuse Prevention and Treatment Act (US Department of Health and Human Services, 2013) as:

> "any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act which presents an imminent risk of serious harm."
> (US DHHS, 2013, p. 2)

These acts include physical, sexual, and emotional abuse as well as neglect in the areas of physical, medical, educational, or emotional needs (US DHHS, 2013). When child abuse or neglect is reported, the case is investigated; if founded, it is then sent to family court to be resolved. Similar to the courts prevailing presumption that joint custody is in the best interest of the child for custody cases, the prevailing presumption in these cases is to keep the child with the family unless the child is in imminent danger in that environment. In that case, the prevailing presumption becomes reunification with the family (or whomever lost custody and parenting rights). However, it is sometimes the case that parents have their children removed from their custody and their parental rights terminated by the courts as they are deemed unfit to parent appropriately.

Involvement in family court is considered a risk factor for H-S in the literature by the intuitive rationale that most individuals in the family court system are undergoing an exceptionally stressful and potentially life-altering process, often filled with relational discord, resentment, and hostility. Needless to say, the family court process could lead to someone losing their paramour through divorce or legal separation, as well as custody of their children and parental rights. H-S incidents within this context are mainly perpetrated by males (Harris Johnson, 2006). Further, the risk factor most highly correlated with H-S is recent estrangement or separation (Cooper & Eaves, 1996), which is often a co-occurring factor in family court disputes. Daly and Wilson (1988) expressed their views on men who commit H-S within the context of family court by stating, "the prospect of losing his family

through death apparently strikes the desperate familicidal father as no more disastrous than the prospect of losing them through desertion" (p. 215).

Harris Johnson (2006) reported that familicide-suicides within the family court context possess the following commonalities: (1) the act was more related to separation than to custody dispute; (2) there was a history of domestic violence; (3) the offense was premeditated; (4) the domestic violence was underreported by the victim; (5) the perpetrator had a reported history of obsessive and controlling behavior, pathological jealousy, untreated mental health problems, and made previous lethal threats; and (6) the perpetrator expressed fears of abandonment. The conclusions of this study support the contention that community agencies and employees who are exposed to individuals involved in IPV seem to lack awareness of family violence/homicide risk factors. Further, interagency communication in sharing vital information seems to be deficient. It is essential for the legal system to aid victims of IPV in disclosing the extent of the experienced violence and threats, taking into account the known difficulty experienced by victims of IPV when divulging their experienced abuse in court in front of the perpetrator. Harris Johnson (2006) advised for family courts to accept therapeutic jurisprudence as a model for service delivery and early prevention and intervention. Thorough screening of cases for risk factors outlined would aid in providing access to diversionary programs and community resources designed to protect the vulnerable parties (Harris Johnson, 2006).

## Older Adults

Even though older adults (i.e., individuals age 65 or older) account for 10% of the US population, they comprise 20% of completed suicides (Hoyer, Arias, & Smith, 2001). This risk only increases with the presence of a chronic or terminal illness. Indeed, the Institute of Medicine (IOM) contributed to a publication addressing suicidality stating that physical pain, anticipatory anxiety regarding the progression of the illness, and fear

of dependence and burdening the family are major contributing influences in the suicidality of older adults with medical illnesses (Goldsmith, Pellmar, & Kleinman, 2002). It has been suggested previously that older adults are particularly at risk for H-S incidents. In fact, spousal H-S may occur most frequently in the elderly, and recent US reports have found an increase in H-S cases in this age group (Cohen, 2000; Cohen, Llorente, & Eisdorfer, 1998; Malphurs & Cohen, 2005). Also, H-S cases in individuals 55 and older account for at least one-third of total annual H-S related deaths (Cohen, 2000).

Thus, it is important to examine the features characteristic of older H-S perpetrators. Most of spousal older adult H-S perpetrators were male spouses or ex-spouses of their victims (Bourget et al., 2010). Further, a history of domestic violence (Cohen et al., 1998; Malphurs & Cohen, 2005) and marital conflict including divorce (Cohen, 2000; Cohen et al., 1998) have been found to be predictors of H-S in older adults, although not to the degree found in H-S incidences in the general population. One study by Bourget et al. (2010) found that spousal domestic violence was not characteristic of elderly H-S cases.

Perhaps the most important risk factor found in older adult H-S cases is physical illness in the perpetrator, in the victim, or in both parties (Allen, 1983; Cohen, 2000; Cohen et al., 1998; Malphurs et al., 2001; Rosembaum, 1990). It was reported that a significant portion of H-S perpetrators experienced a perceived or actual decline in health preceding the act (Cohen, 2000; Cohen et al., 1998). An impending lifestyle-related change, such as a move to a long-term care residence, further increased the H-S risk (Cohen, 2000; Malphurs et al., 2001). Dawson (2005), found that offenders motivated by health concerns were seven times more likely to commit suicide after killing than nonsuicidal homicide perpetrators. Additionally, in half of spousal H-S cases involving older adults, the perpetrator was the husband and the caretaker of the victim, who typically had an incapacitating long-term terminal or chronic illness (Cohen et al., 1998; Malphurs et al., 2001). Most of the perpetrators

were found to have untreated depression or another psychiatric illness, and most expressed, in some way, that they could not adequately care for their ailing partners (Cohen et al., 1998; Malphurs & Cohen, 2005; Malphurs et al., 2001; Nock & Marzuk, 1999). Indeed, research confirms a strong relationship between psychopathology and older adult H-S cases: the perpetrator's longstanding and chronic depression induces a state of hopelessness that may serve to motivate the offense (Cohen, 2000; Rosembaum, 1990). However, use of alcohol or other substances is found to be rare in older adult H-S incidents (Bourget et al., 2010).

There is a growing body of literature examining the potential role of dementia in older adult violence, such as suicides, spousal homicides, and murder-suicides. Research has suggested that patients with dementia can show impaired moral judgment, a decline in social interpersonal behavior, lapses in social norms, and antisocial behavior; the combination of these changes have been characterized as an "acquired" sociopathy, secondary to dementia (Cipriani, Borin, & Vedovello, 2013). There is evidence that dementia patients may exhibit sociopathic behavior associated with disinhibition, agitation paranoia, delusions, personality changes, and a declining cognitive capacity (Mendez, Shapira, & Saul, 2011). Although the exact prevalence of violent behavior in dementia patients is unknown, the literature has suggested that it can prevail in up to 96% of dementia patients (Fazel, Bond, & Gulati, 2007; Lemay & Landreville, 2010). There is a modicum of literature examining the presence of dementia in older adult homicide-suicide cases. One study found that 7.5% of victims had some form of reported dementia, but that it was seldom found in offenders (Salari, 2007). This finding merges with previous findings suggesting that dementia patients are more likely to be abused or mistreated by their caretakers out of frustration (Cipriani, Lucetti, Danti, Carlesi, & Nuti, 2016), and the possibility that the act of H-S is too complex and organized to be easily carried out by a dementia patient (Cipriani et al., 2016). As neuropsychological testing, biomarker detection and neuroimaging technology improves, it is impera-

tive to continue investigations observing the potential role and dynamics of dementia in older adult H-S cases.

Bourget et al. (2010) underscored the importance of implementing preventive measures in older populations to reduce the risk of violence. Since terminal illness in the spouse (i.e., the victim) and depression in the other spouse (i.e., the perpetrator) is a known risk factor in homicide-suicides in older adults, these authors emphasized the importance of screening for these elements routinely. It should be noted that 70% of elderly suicide victims saw their primary care physicians within 1 month of their deaths (Barraclough & Harris, 2002). Thus, it is clear that physicians are exposed to ill elderly individuals and/or their caretakers who may be at risk for self-directed and/or externalized violence. Additionally, Bourget et al. (2010) found that 40% of older adult H-S perpetrators contacted a family member about their distresses preceding the incident. Professionals and loved ones exposed to elderly individuals need to remain cognizant of the following risk factors: an elderly male who is the caretaker for a chronically ill spouse, has untreated depression, and may have a recent decline in his own health status may be at high risk of committing a homicide-suicide targeting his spouse. Other factors such as relational conflict, an impending separation, or a significant life change (e.g., being transferred to an assisted living facility) may elevate this risk.

H-S prevention efforts for the elderly, similar to current suicide-prevention efforts in older adults, have been proposed. For example, elderly cancer patients who expressed a desire to die reported reduced suicidal ideation when their pain and/or depression were effectively treated (Foley, 1991). Further, the Prevention of Suicide in Primary Care Elderly (PROSPECT): Collaborative Trial (Bruce & Pearson, 1999) developed an approach towards identifying individuals at risk of dying by suicide and instilling protective factors to decrease the risk of negative outcomes. They found that participants endorsed lower suicidal ideation, feelings of hopelessness, and were likely to engage in psychological interventions and achieve a remission of depression.

In light of the effectiveness of this approach, it is possible that it may also be useful in preventing homicide-suicide in elderly couples.

## Police Officers

There is evidence that police officers are at a higher risk of perpetrating H-S than the general population due to several job-related risk factors (Violanti, 2007b). These risk factors include: elevated aggression, domestic violence, exposure to violence, mental health problems (e.g., depression, substance abuse, PTSD), and access to firearms. In fact, the majority of police-involved homicide-suicides have been carried out using the officer's service-issued firearms (Klinoff, Van Hasselt, & Black, 2014; Violanti, 2007b). There are several job-related factors in law enforcement that may encourage an authoritarian presence and interaction style, which may motivate generalized aggressive responding (Griffin & Bernard, 2003), and, correspondingly, domestic violence (Anderson & Lo, 2011; Griffin & Bernard, 2003; He & Archbold, 2002; Johnson, Todd, & Subramanian, 2005). Further, police officers have been characterized by higher rates of mental health and relational problems, including substance abuse (Davey, Obst, & Sheehan, 2000; Leenaars, 2010; Violanti, 2003), depression (Chen et al., 2006), post-traumatic stress disorders (Carlier, Lamberts, & Gersons, 2000; West et al., 2008), and job-related stress (Band & Sheehan, 1999; Collins & Gibbs, 2003; Janik & Kravitz, 1994; Sheehan & Van Hasselt, 2003), as well as domestic violence (Anderson, Sisask, & Värnik, 2011; Griffin & Bernard, 2003; Johnson et al., 2005) than their civilian counterparts. Indeed, several studies have found that law enforcement officers are at a higher risk of being involved in domestic violence than the general population (Johnson, 1991; Neidig, Russell, & Seng, 1992; Ryan, 2000; Van Hasselt, 2000). Of great concern, these problems often go untreated in law enforcement due to the stigma associated with seeking treatment in the police culture, as well as fear of confidentiality breaches and occupational repercussions (Klinoff et al., 2014).

There is contradictory evidence regarding suicide rates in police officers, but several studies have found that their rates surpass that of the general population (Charbonneau, 2000; Gershon, Lin, & Li, 2002; O'Hara & Violanti, 2009; Slovenko, 1999; Smchmidtke, Fricke, & Lester, 1999; Violanti, Vena, & Marshall, 1996; Violanti, Vena, & Petralia, 1998). The aforementioned risk factors elevated in law enforcement have been found to be antecedents to H-S incidents in the general population, suggesting that there is higher H-S risk in police officers. Of note, these risk factors often overlap and increase the risk for H-S significantly (Violanti, 2007a).

Only two studies have dealt specifically with officer-involved H-S incidents (Klinoff et al., 2014; Violanti, 2007a). Both found that a history of domestic violence was the consistent factor present across the cases examined. Additionally, Klinoff et al. (2014) found that divorce/estrangement and relational problems in the context of domestic violence were prevailing motives for 75% of the cases. These studies both suggest that a crucial factor in the prevention of H-S in both law enforcement and civilian populations is the reduction of domestic violence. They also found that officer-involved homicide-suicides were typically perpetrated by male patrol officers who were employed by local departments. Klinoff et al. (2014) found that the majority of the acts were carried out using a service-issued firearm, usually against a recently estranged wife in the context of domestic violence. Congruent with civilian populations, the majority of the perpetrators were employed and in good standing with their department at the time of the incident.

In summary, the literature in this area indicates the following: (1) police administrators must implement domestic violence policies that adhere to federal law or the best practice, the International Association of Chiefs of Police (IACP) policy; (2) there is a need for programs that increase the accessibility of mental health services in law enforcement, and decrease the stigma associated with seeking mental health services; and (3) employment of behavioral health trainings geared towards the identification of H-S risk factors among peer officers may serve as a heuristic prevention strategy.

## Summary and Conclusion

This chapter reviews various issues pertaining to the understanding and eventual prevention of homicide suicide (H-S) incidents. These issues include extant definitions and operationalizations of H-S, a review of nationwide prevalence, risk factors, dynamics, theoretical underpinnings, and a review of the literature pertaining to H-S cases across vulnerable populations. The aim of this chapter is to: (1) provide a breadth of information to professionals and organizations that interact with populations vulnerable to this form of violence, and (2) provide a foundation for prevention, intervention and reform.

A review of risk factors unique to various populations yielded several global themes that are important to incorporate into preventive efforts. For example, the most dangerous time for a victim of domestic violence is when they decide to leave their abusive partner (Violence Policy Center, 2015); partners who disclose a desire to separate from their partner should receive interventions to ensure safety, such as education and risk assessment by a practitioner, referral to domestic violence advocacy services, safety planning, and swift law enforcement response if needed.

Physicians and other healthcare providers who may treat victims of intimate partner violence should remain vigilant of behavioral indicators that may suggest domestic violence and potentially fatal violence. Further, patients who present with suicidal ideations or tendencies should be thoroughly assessed for risk of externalized violence towards family or intimate partners by asking about past abusive behaviors or homicidal ideation (Liem & Roberts, 2009). Further, it was also suggested that signs of premeditation are often present and manifested as suicidal threats; therefore, risk can expand past the individual to loved ones when suicidal ideation is expressed. The suicidal ideation, in turn, increases homicidal risk, as the individual is no longer concerned about subsequent consequences (Liem & Roberts, 2009). Statements expressing extreme jealousy or accusations of infidelity should always be taken seriously, especially if there is evidence of prior violence.

In summary, preventive methods to reduce intimate partner homicide include early identification of domestic violence, legal interventions, shelters, and increased consequences and/or treatment for perpetrators. However, it has been argued that interventions which hinge on fear of punishment would not have worked on perpetrators of homicide-suicide, as they may have intentions of committing suicide from the inception of the incident (Banks et al., 2008). Current risk assessment methods focus unilaterally on suicide or homicide prevention, and this approach needs to be broadened when dealing with this unique phenomenon. Therefore, it has been suggested that prevention efforts for potential H-S cases be better combined as a unique combination of suicide and homicide prevention, indicating that efforts such as screening and treatment for depression and/or chemical dependence, removal of firearms, as well as counseling and protection of the potential victim. The prevention of H-S incidents warrants further research, but most importantly, it requires joint interdisciplinary efforts between social/community agencies, policy makers, advocates, law enforcement, and healthcare providers.

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# Criminal Investigative Analysis: A Move Toward a Scientific, Multidisciplinary Model

Craig N. Ackley

The concept of criminal profiling, also known as "offender profiling," "psychological profiling," "personality profiling," "behavioral profiling," and, most recently, "Criminal Investigative Analysis," has been developing along two paths since the 1980s. Although profiling techniques had been practiced elsewhere in the world (e.g., David Canter in the UK), in the USA profiling was first used by agents assigned to the Behavioral Sciences Unit (BSU) of the FBI. In the USA, profiling techniques have long been defined as a nonscientific model that relies primarily upon the judgment of the profiler or "Behavioral Analyst." Douglas, Burgess, Burgess, and Ressler (1992) likened the process to that "used by clinicians to make a diagnosis and treatment plan: data are collected and assessed, the situation is reconstructed, hypotheses are formulated, a profile is developed and tested, and the results are reported back." (p. 310).

In contrast, criminal profiling in the UK was developed under the theories of investigative psychology, and emphasized research-based hypotheses and statistical analyses of information found at the crime scene. From the results of such empirically guided practice, investigators infer characteristics and psychological processes of the offender (Alison, Goodwill, Almond, van den Heuvel, & Winter, 2010).

In the current chapter, I present a brief history of the emergence of these two approaches and discuss the strengths and weaknesses of each. I also provide an overview of a structured approach for CIA with an emphasis on scientific and multidisciplinary aspects.

## Definition of Terms

Four terms are commonly used when discussing the CIA process and the application of research to that process: *deductive*, *inductive*, *nomothetic*, and *ideographic*. The term "nomothetic" refers to research involving the collection and statistical analyses of group data; it typically provides useful information about base rates (statistical prevalence) of phenomena within a particular population (DeMatteo, Batastini, Foster, & Hunt, 2010). Nomothetic data is also referred to as *actuarial* data (based on the use of such data by actuaries) and is also utilized in risk assessment. For example, a 20-year-old male will pay higher auto insurance premiums than a 25-year-old male because actuarial data shows male drivers in the 18- to 23-year-old range have a higher base rate of accidents than male drivers in any other age group.

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The term "idiographic" research refers to unique (or case-specific) information pertaining to an individual being assessed. It involves the collection of quantitative data about the individual through methods such as case studies, unstructured interviews, and self-reports (DeMatteo et al., 2010). This term is also used when describing the approach one uses to profile an individual case.

## The Emergence of Criminal Profiling in the USA: The Clinical (Deductive) Approach

But it is in matters beyond the limits of mere rule that the skill of the analyst is evinced. He makes in silence a host of observations and inferences….
—Edgar Allan Poe (*The Murders in the Rue Morgue*, 1841)

Beyond the obvious facts that he has at some time done manual labour, that he takes snuff, that he is a Freemason, that he has been in China, and that he has done a considerable amount of writing lately, I can deduce nothing else.
—Sir Arthur Conan Doyle (*The Red Headed League*, 1892)

Crime is terribly revealing. Try and vary your methods as you will, your tastes, your habits, your attitude of mind, and your soul is revealed by your actions.
—Agatha Christie (*The ABC Murders*, 1932)

Criminal profiling initially was developed as an investigative tool designed to identify "the major personality and behavioral characteristics of an individual based upon an analysis of the crimes he or she has committed." (Douglas, Ressler, Burgess, & Hartman, 1986, p. 405). The process has captured the public's imagination through sensationalized depictions in numerous novels, movies and television shows over the past 25 years.

The belief that the personality and behavioral characteristics of an offender can be reflected in his or her crime is not a novel concept. Long before criminal profiling became a common practice in the field of criminal investigations, it caught the attention of the public through the exploits of such famous fictional sleuths as C. Auguste Dupin (Edgar Allen Poe), Sherlock Holmes (Sir Arthur Conan Doyle), and Hercule Poirot (Agatha Christie).

There have also been a number of instances throughout history of the application of some form, and to varying degrees, of criminal or psychological profiling. One of the first documented instances of criminal profiling occurred in 1888 when Dr. Thomas Bond, after reviewing investigative material for a series of murders in the Whitechapel area of London, provided the following analysis to Scotland Yard:

The murderer must have been a man of physical strength and of great coolness and daring. There is no evidence that he had an accomplice. He must in my opinion be a man subject to periodical attacks of Homicidal and erotic mania. The character of the mutilations indicate that the man may be in a condition sexually, that may be called satyriasis. It is of course possible that the Homicidal impulse may have developed from a revengeful or brooding condition of the mind, or that Religious Mania may have been the original disease, but I do not think either hypothesis is likely. The murderer in external appearance is quite likely to be a quiet inoffensive looking man probably middle aged and neatly and respectably dressed. I think he must be in the habit of wearing a cloak or overcoat or he could hardly have escaped notice in the streets if the blood on his hands or clothes were visible.
Assuming the murderer to be such a person as I have just described he would probably be solitary and eccentric in his habits, also he is most likely to be a man without regular occupation, but with some small income or pension. He is possibly living among respectable persons who have some knowledge of his character and habits and who may have grounds for suspicion that he is not quite right in his mind at times. Such persons would probably be unwilling to communicate suspicions to the Police for fear of trouble or notoriety, whereas if there were a prospect of reward it might overcome their scruples. (Rumbelow, 2013, pp. 187–188)

Perhaps the most well-known instance of criminal profiling occurred in 1956, when Dr. James A. Brussel provided an analysis of the individual responsible for a series of bombings in New York City over a 16-year period. The bomber had written a number of letters to law enforcement over the years. Brussel, a psychiatrist in private practice, reviewed the investigative

material and developed a profile in which he opined the individual would be between 40 and 50 years of age, Slavic, Roman Catholic, unmarried, living in Connecticut alone or with female relatives, a high school graduate at most, suffering from a chronic illness, suffering from paranoia, wearing a double-breasted suit when found, and have a grudge against Consolidated Edison. Brussel urged the police to publish the profile in an effort to draw out the bomber, and he suggested Consolidated Edison search their files for any former employees who matched the profile (Brussel, 1968, pp. 45–62). The publication of the profile resulted in additional letters from the bomber, and the review of Consolidated Edison's files led to the identification and arrest of George Metesky.

At the time Dr. Brussel was providing profiles on the New York City bombing case and others, Howard D. Teten, a young law enforcement officer in California, was studying criminology and developing theories on criminal behavior in crime scenes. In 1962, Teten became a Special Agent with the FBI, and in 1972 he became head of the newly formed Behavioral Science Unit (BSU) at the FBI Academy in Quantico, Virginia (Teten, 2004). Teten was joined by Robert Ressler in 1974 and John Douglas in 1977, and the three pioneered the early development of criminal profiling within US law enforcement. In 1984, the BSU was placed under the newly formed National Center for the Analysis of Violent Crime (NCAVC), and in 1997 the name was changed to the Behavioral Analysis Unit (BAU).

During the 1980s and early 1990s, Ressler and Douglas showed a particular interest in studying sexual homicide. They collaborated with Ann Burgess of the University of Pennsylvania School of Nursing to secure funding through a federal grant. Ressler and Douglas interviewed 36 incarcerated offenders who had been convicted of sexual homicide (Egger, 1999; Gregory, 2005; Hicks & Sales, 2006). Based on these interviews they published *Sexual Homicide: Patterns and Motives* (Ressler, Burgess, & Douglas, 1988), in which they detailed their now well-known "organized/disorganized" classification of murderers.

In 1992, Douglas and Ressler again collaborated with Burgess to author the *Crime Classification Manual* (Douglas et al., 1992) in which they provided a taxonomy for classifying serious crimes by behavioral characteristics. The basis for their taxonomy was a series of studies of sexual murderers, rapists, child molesters and abductors, and arsonists. The purpose of the manual was:

- to standardize terminology within the criminal justice field,
- to facilitate communication within the criminal justice field and between criminal justice and mental health,
- to educate the criminal justice system and the public at large to the types of crimes being committed, and
- to develop a data base for investigative research (p. x).

## The Evolution into Criminal Investigative Analysis

While the reputation and public image of the NCAVC centered on the profiling of offenders in unsolved homicides, members of the unit also analyzed other violent crimes. They provided a number of services, such as risk assessment, interview strategies, investigative and interviewing techniques, and prosecution strategies. Perhaps to highlight the utility of their techniques in areas other than unknown offender profiling, by the late 1980s the unit began to use the term "criminal investigative analysis" (CIA) to describe their work. This term better encompasses the broader application of the techniques used.

One of the first uses of the term in published form was in a 1990 publication by the NCAVC entitled, *Criminal Investigative Analysis: Sexual Homicide*. While the publication consisted of a collection of articles related to sexual homicides, the following was contained in the Foreword, under the heading "Criminal Investigative Analysis":

Criminal Investigative Analysis (Criminal Profiling): Special Agents assigned to the Criminal Investigative Analysis Program (CIAP) of the National Center for the Analysis of Violent Crime provide operational and investigative support to FBI field offices and law enforcement agencies investigating violent crimes. The terms "psychological profile" and "criminal personality profile" are no longer used in describing the work done by the analysts. Although the "profile" or description of the type of person who would be likely to have committed the crime or crimes analyzed is part of the service provided, it is secondary to the overall crime analysis. The analysts also provide suggestions for investigative strategy, interviewing and investigative techniques, search warrant information, and prosecutive strategy. (p. 2)

The term, processes, and goals were subsequently defined in greater detail within the *Crime Classification Manual* (Douglas et al., 1992): "The FBI defines criminal investigative analysis as an investigative process that identifies the major personality and behavioral characteristics of the offender based on the crimes he or she committed." (p. 310).

According to this manual, the process generally involves seven steps:

- Evaluation of the criminal act itself,
- Comprehensive evaluation of the specifics of the crime scene(s),
- Comprehensive analysis of the victim,
- Evaluation of preliminary police reports,
- Evaluation of the medical examiner's autopsy protocol,
- Development of the profile with critical offender characteristics, and
- Investigative suggestions predicated on construction of the profile. (p. 310)

Other applications of criminal investigative analysis include investigative/interrogation strategies, search warrant suggestions, prosecution strategies, and jury selection guidance. Criminal investigative analysts also examine equivocal death cases and render opinions as to whether the death was a homicide, suicide, or accident. (p. 311)

Currently the NCAVC still uses the term criminal investigative analysis to describe the process by which analysts provide "behavioral-based investigative support to the FBI, national security

agencies, and other federal, state, local and international law enforcement involved in the investigation of unusual or repetitive violent crimes, threats, terrorism, cybercrimes, public corruption, and other matters" (National Center for the Analysis of Violent Crime, 1990, n.d., p. 1).

They provide this support in the form of such services as

- crime analysis
- profiles of unknown offenders
- offender motivation analysis
- linkage analysis
- investigative suggestions
- threat assessment
- search warrant affidavit assistance
- prosecution and trial strategies
- expert testimony

Currently there is no collective or agreed-upon definition of CIA either in law enforcement or academic literature (Scherer & Jarvis, 2014). Furthermore, there seems to be some debate about whether CIA is synonymous with criminal profiling (Turvey, 2008) or if it describes the *process* and "criminal profiling" describes one of any number of *goals* of that process. In its strictest sense, CIA is not always conducted for the purposes of creating an offender profile. However, profiling is defined in the Cambridge Dictionary (2016) as, "the activity of collecting information about someone, especially a criminal, in order to give a description of them" and criminal profiling is generally regarded throughout the literature as a process that seeks to infer offender characteristics from analyses of the crime(s) the offender committed (Egger, 1999; Gregory, 2005; Holmes & Holmes, 1996; Woodworth & Porter, 1999). Given that CIA is generally accepted within the law enforcement community as a behaviorally based analysis of a crime, then, whatever its goal, it will almost always involve, to some degree, a profiling aspect.

## Criticism of the Clinical Approach

The primary criticism of the clinical approach is the lack of empirical underpinnings. It is generally agreed upon that, until recently, the NCAVC

placed little emphasis on research. Further, the research conducted by the NCAVC in the past had little empirical value. A second criticism of the clinical approach is that it fails to provide a clear explanation of the methods by which the overall analysis is conducted and, in particular, the procedures for inferring offender characteristics from crime scene behaviors (Hicks & Sales, 2006).

## The Emergence of Criminal Profiling in the UK: The Scientific/Actuarial Approach

While the clinically based approach to criminal profiling began in the USA, the actuarial approach to criminal profiling was initiated in the UK (Bartol & Bartol, 2013, p. 62). During the period between 1982 and 1986 a series of rapes and murders occurred in and around London, and the police believed the same person committed the acts. In 1985 investigators contacted social psychologist David Canter to explore the possibilities of utilizing psychological concepts in evaluating the behavior of the offender. After reviewing the investigative material, Canter provided a profile of the offender's personality traits and behavioral characteristics. Although his profile did not directly lead to the arrest of the offender, it was useful because it encouraged the police to take another look at an individual whom they had previously dismissed as a suspect. That suspect, John Duffy, eventually was arrested and convicted. After the trial, the profile was found to be fairly accurate (Bartol & Bartol, 2013; Canter, 1995; Egger, 1999).

Canter has been critical of the FBI's approach to profiling, specifically with regard to the lack of empirical bases to their work. He subsequently sought to initiate a "wide range of research activities on which could be built an effective scientific discipline" (Canter & Youngs, 2009, p. 75) which he termed "investigative psychology." According to Hicks and Sales (2006),

> Canter presented a scientifically based model of profiling, in which he argued that the profiling inferences important to police investigators, including those that the FBI claims to invoke through intuitive methods, are actually empirical questions that can be answered by psychological

research. Canter identified the following categories from which these profiling inferences and empirical questions are derived:

- Behavioral salience, which refers to the important behavioral features of a crime that may help identify the perpetrator;
- Distinguishing between offenders, which refers to the question of how to indicate differences between offenders, including differences between crimes;
- Inferring characteristics, which refers to inferences that can be made about offender characteristics that may help to identify him or her; and
- Linking offenses, which refers to the question of attributing multiple offenses to the same offender.

According to Canter (2000), the tasks of profiling research are to develop scientific ways to assess these categories within a psychological framework and to use that information to infer and provide offender characteristics that will be useful to law enforcement agents. (pp. 72–73)

Canter believes the actuarial (nomothetic/inductive) approach offers a far more effective means in answering traditional profiling questions than the clinical (ideographic/deductive) approach, as stated in Canter and Youngs (2009):

> This comparison between the deductive, "fictional-hero" approach and that of the scientific psychologist is not new to psychology. It has many parallels with the distinction between clinical and actuarial judgements that were explored by Meehl (1996). The clinician uses her or his judgements and experience to form an opinion about the patient. In contrast, actuarial judgements are those based on careful measurements and the resultant statistical relationships. In a series of studies first published in 1954 and followed up over subsequent decades, it has been found that actuarial decision processes were far more accurate and valid than those based on clinical judgement. In general, the scientific approach proves to be far more effective than that based on personal opinion.

## Criticism of the Actuarial Approach

Perhaps no one is more responsible for the emphasis on a scientific approach to criminal profiling than David Canter. His efforts, and the

efforts of many who share the same vision, have resulted in a surge of empirical research in this arena. Those efforts should be applauded as much-needed step in the right direction. However, it is clear that there is still a long way to go.

According to Alison et al. (2010) and Chifflet (2015), the first and most significant critique of the actuarial approach is the application of nomothetic, and often inductively gathered, research findings to specific cases. However, there are two primary problems with the application of nomothetic research to specific cases. The first involves basing research on heterogeneous group behavior. Any group of offenders, whether they are murderers, rapists, or some other type of offender, are extremely heterogeneous in terms of personality structures, motivations, and other characteristics. That is the primary purpose behind typologies: to create more homogeneous subgroups from that heterogeneity. Even if the research itself creates those subgroups there is often a degree of overlap between groups; this serves as a commentary on the complexity of differences among individuals in a group.

For this reason, it can be problematic to apply principles derived from group data to specific individuals. There is a significant amount of research arguing against such extrapolation of group-based statistics (Cooke & Michie, 2010; DeMatteo et al., 2010; Hart, Michie, & Cooke, 2007). The primary issue is that it does not remove the subjective process from the analysis. As a hypothetical example, let us assume an analyst reviews the data on the crime scene of a homicide and determines behavior X was present. Let us also assume research has indicated that in 65% of murders, behavior X is linked with offender characteristic Y. The task of the analyst at this point is to determine if the observed behavior belongs to the 65% group linked to offender characteristic Y, or the 35% group that is not.

A second criticism of the actuarial approach is it fails to provide a clear explanation of methods or procedures for interpreting the findings from empirical studies into offender characteristics that will be of use to investigators (Hicks & Sales, 2006.

A third criticism of the actuarial approach is the lack of research assessing whether criminal profiles conducted utilizing empirical data are any more accurate than those conducted utilizing the clinical approach. Similarly, there is a paucity of research to empirically determine which method produces investigators with more pragmatically useful results.

## Clinical vs. Actuarial Approaches

Research in the area of violence risk assessment offers some valuable lessons in the clinical versus actuarial debate. Violence risk assessment involves the analysis of any number of variables to determine their relative value in the likelihood of different possible outcomes (Glancy & Chaimowitz, 2005). This type of assessment traditionally has fallen within the purview of clinicians asked to provide assessments of dangerousness to assist in the management of offenders in the criminal justice and mental health systems (Hanson, 2005; Norko & Baranoski, 2005). Thus, the historical approach to risk assessment generally has been clinical in nature, with a primary reliance on the education, training, and experience of the clinician.

Monahan (1981) was one of the first to scrutinize the accuracy of the clinical assessment and prediction process. In a monograph he claimed clinicians accurately predicted violent behavior in not more than one-third of their patients, and he recommended professionals consider the use of actuarial approaches to improve clinical prediction. Interest subsequently began to grow in actuarial prediction methods, in which the use of empirically demonstrated statistical relationships between variables and outcome—essentially a reliance upon statistical probability— could be utilized to predict dangerousness (Holland, Holt, Levi, & Beckett, 1983).

This interest sparked considerable debate between the proponents for each method. Those in favor of actuarial techniques criticized clinical methods by highlighting their reliance upon individual clinical factors that are subject to human error in interpretation. They also pointed out that clinical methodology ignored statistical data that

might place an individual into a high-risk group. Conversely, proponents of clinical methods tended to define actuarial methods in terms of the reliance on statistical relationships between static or historical variables that could be measured with little or no human judgment. This method, they claimed, risked placing individuals within groups without regard to individual clinical variables.

While proponents of both methods claimed superiority in terms of predictive ability, the truth is that neither method, when variables associated with the opposing method were excluded, was particularly effective in predicting dangerousness (Litwack, 2001). Thus, as Bonta (1996) outlined, risk assessment methodology progressed from the sole reliance on clinical judgment (with poor success), to actuarial reliance only on static risk factors (with moderate success), to a realization that both clinical and actuarial variables should be factored into predictive models. At present, it is generally accepted that empirically based assessment methods that incorporate both static and dynamic features (both clinical and nonclinical) are likely to provide the most accurate predictions of violent behavior (Grove & Meehl, 1996; Grove, Zald, Lebow, Snitz, & Nelson, 2000; Monahan et al., 2001).

## Summary of Methodology

It is clear that empirical research is the primary key to transforming the field of criminal profiling from a pseudoscientific process; however, it is also apparent the research has not yet reached a point where valid and reliable conclusions can be reached. Another key is to combine investigative experience and the detailed analytical process of the clinical method with the psychological experience and research-oriented process of the actuarial method.

Given the current lack of empirical support, and the lack of application of the data to individual cases, the end conclusions of the process still remain largely hypothetical in nature. Therefore, as a practical matter, the process should be used primarily as an investigative tool and only rarely should the techniques be used in the courtroom in the form of "expert" testimony.

## The Process of Criminal Investigative Analysis

Criminal investigative analysis, in its broadest sense, refers to a multidisciplinary, analytical *process*. More specifically, it is an "umbrella" term, under which any number of interconnected processes fall. It involves detailed, comprehensive, multidisciplinary analyses of case file information from investigative, scientific, and behavioral perspectives. Contrary to depictions in numerous movies and books, there is nothing mystical or magical about the process. Nor is one person capable of possessing the depth and breadth of knowledge required to adequately conduct the process by himself or herself. Rather, it is an often tedious, always rigorous process of organizing and analyzing data. It involves a complex blend of nomothetic and ideographic approaches, as well as deductive and inductive reasoning, with input throughout the process from a number of professionals.

Typically a criminal investigative analyst will analyze a case that falls into one of two areas: (a) those involving unknown offenders, and (b) those with known offenders. Cases with unknown offenders are unsolved cases that generally involve murder and sexual assault. Many of these cases also involve "potential suspects," as well. Cases with known offenders are those in which an offender has been charged or convicted. While many different services are offered under CIA, the following are some of the more common goals that utilize the entire process:

### Unknown Offenders

- Behavioral Profile
- Investigative suggestions/strategies
- Risk Assessment

### Potential Suspects

- Behavioral profile
- Interview strategies
- Risk assessment
- Equivocal death analysis

## Known Offenders

- Risk assessment
- Prosecution strategies

For the limited purpose of this chapter, a structured approach for creating an unknown offender profile in homicide or sexual assault cases is offered; the approach is fundamentally similar for any of the services listed above. Perhaps the single most important aspect of CIA is that it be accomplished in a detailed, structured way. As previously stated, Douglas et al. (1992) described the criminal investigative process as generally involving seven steps. The current author suggests the analyses may be accomplished in four phases that incorporate the steps outlined by Douglas and his colleagues:

- Case organization
- Crime analyses from investigative and scientific perspectives
- Victim and offender analyses from behavioral and scientific perspectives
- Written conclusions

For the purposes of this chapter, only the first three phases will be discussed. Before addressing the phases in detail, a brief discussion is necessary about the use of software programs in CIA to organize, manage, and analyze case file material. The voluminous nature of case material and the depth of the analyses required present two problems for the analyst. First, he or she must find a way to organize the material in such a way that any particular document, photo, audio file, or video file can be quickly accessed and reviewed in a structured way. Second, he or she must find a way to categorize, organize, and quickly access/retrieve the notes generated during each phase of the analyses. A file management and analysis software program can assist the analyst in solving these problems, and is essential for conducting the process in the most thorough and accurate manner. The following description of the process is predicated upon the use of such a program, or some equivalent ability to digitally organize files and notes.

## Phase 1: Case Organization

Case organization is the first crucial step in the CIA process. It is not uncommon for a case file to include thousands of pages of documents and photos, as well as audio and video files. The initial organization and management of such material will (a) provide a structured format for review and analyses, and (b) save valuable time in locating any particular item throughout the process. Some of the more common material in homicide and sexual assault investigations include:

- Investigative reports
- Crime scene photographs
- Crime scene videos
- Crime scene sketches
- Autopsy report(s)
- Autopsy photos
- Medical records (sexual assault)
- Evidence custody forms
- Laboratory reports
- Digital forensic exams
- Witness interviews
- Investigative notes

The material should be organized topically in a manner that is intuitive for retrieval (Fig. 1). Such a format might include (but is not limited to) the following topics:

- Crime scene
- Medical examinations
- Evidence collected
- Evidence submitted for analyses
- Laboratory examination results
- Investigative reports
- Witness interviews
- Victim information

## Phase 2: Crime Analyses from Investigative and Scientific Perspectives

Analysts cannot thoroughly and accurately review a voluminous amount of information until that information is organized in a struc-

Case File Information          ⟶          Digital Organization

Crime Scene Photos
Crime Scene Video
Crime Scene Sketches
Autopsy Report(s)
Autopsy Photos
Medical Records
Investigative Reports
Investigative Notes
Search Warrants
Evidence Custody Forms
Laboratory Reports
Digital Forensic Exams
Interviews
Financial Records
Employment Records
Education Records
Financial Records
Mental Health Records
Criminal / Civil Records
Social Media Records

Crime Scene
- Reports
- Photos
- Video
- Sketches

Medical Examinations
- Autopsy Reports
- Autopsy Photos
- Pathology Exam Reports
- Medical records (Live Victim)

Investigative Reports
- All documentation related to investigative activity

Evidence
- Search Warrants
- Evidence Custody Documents
- Lab Examination Results
- Digital Forensic Exam Results

Victim(s)
- All documents relating to Victim(s)

Offender(s)
- All documents relating to offender(s)

Witnesses (any individual identified)
- Law Enforcement Witnesses
- Expert Witnesses
- Lay Witnesses (all others)

**Fig. 1** Criminal investigative analysis phase 1: case organization

tured, logical format. Phase one accomplished that task, and now the analyst can begin Phase two: analyzing the material from scientific and investigative perspectives. "Scientific," in this phase, refers to the forensic sciences and typically includes laboratory analyses (e.g., DNA, trace evidence, ballistics, fingerprints), pathological examinations (e.g., autopsy and related pathology exams), and related forensic analyses (e.g., blood spatter analyses, forensic entomology). This is the beginning of the multidisciplinary approach and the analyst must rely on the expertise of any number of professionals during this phase. "Investigative" refers to the deductive process utilized in interpreting the evidence to reach reasonable,

evidence-based conclusions. This phase is actually accomplished in two parts: the summary stage and the analysis stage.

**Stage One: Summarizing the Material**

This is the most tedious aspect of the criminal investigative process; yet, arguably, it is the most important. In Stage One the analyst conducts a systematic review of the entire case file for the sole purpose of summarizing the material in detail. He or she should not become concerned with any particular analyses at this point but instead should focus on the creation of a comprehensive, organized summary of the information contained in the case file. To accomplish this goal the analyst must have a

means of categorizing notes in a structured, yet flexible, system that allows him or her to subsequently retrieve, search, and organize the material by user-specified criteria. For example, a category should be created for each piece of physical evidence to allow the analyst to create notes regarding any information relevant to any item of evidence. At the end of the summary stage, the note category for each piece of evidence should contain (but may not be limited to) information such as when and where the item was found, who found the item, who collected it, whether the item was submitted for any scientific analyses, and the results of such analyses. Another example is a note cate-

gory for each witness, under which the analyst can place notes regarding biographical data, role in the case, information provided by the witness, and information relevant to the witness from other sources (e.g., reports from other witnesses).

Stage One is primarily about data mining and placing that data into an organized, searchable, and retrievable format. It serves two very important functions. First, this stage allows the analyst to become familiar with even minute details about the case. Second, the product created will be added to and repeatedly utilized throughout the remainder of the overall process, and likely will provide the bases for ultimate conclusions (Fig. 2).

Summary of information into note categories



Offense
  - Reporting of crime
  - Location
  - Description of Crime Scene
  - Description of Victim
  - Photographs
    o Summary of relevant info in each photo
  - Videos
  - Diagrams/ Sketches
  - Present at Crime Scene

Medical examinations
  - Autopsy Report
    o Summary of wounds, conclusions
  - Photographs
    o Summary of relevant info in each photo
  - Medical Reports (live victim)
    o Summary of injuries, exams, statements, etc

Evidence Collected
  - Evidence Form #
    o Item 1 (description)
      - (Collection, examination, results, etc)
    o Item 2 (description)
      - (Collection, examination, results, etc)
    o Etc.

Victim
  - Age/Gender/Race/Ethnicity
  - Residence / residential history
  - Relationship status / history
  - Employment / occupational history
  - Education
  - Financial
  - Family history
  - Personality style / characteristics
  - Mental Health
  - Criminal History
  - Alcohol / Drug use / abuse
  - Social Media

Witnesses
  - Smith, John
    o Role in case
    o Information provided by witness
    o Information relevant to witness from other sources

Timeline
  - General (overall)
  - Specific (crime scene actions)

Follow-up Investigation
  - Logical investigative steps to be completed based on a review of the information

**Fig. 2** Criminal investigative analysis phase 2, stage 1: summary of information

## Stage Two: Analyzing the Material

Stage One was about gaining a thorough understanding of the results of numerous investigative activities, medical examinations, and laboratory analyses, as well as *summarizing* the information. Stage Two is about analyzing that information to determine the answers to the basic questions of every case: *Who? What? When? Where?* and *How?*

This stage is essentially about crime reconstruction and the analysis of information to accomplish that goal. An analyst should never begin analyzing material until the first stage of this phase has been completed and he or she has an in-depth understanding of all the facts and evidence contained within the case file. In stage two the analyst has the advantage of looking at each piece of information through the lens of an understanding of the whole. This, in turn, allows each piece of information to be weighed against all other known pieces of information, thereby giving the analyst a greater ability to accurately interpret that piece of information in regard to its relevance and significance in reconstructing the crime. In addition, this stage involves consultation with appropriate forensic professionals to request analyses and opinions in any area where the analyst, regardless of his or her working knowledge of the topic, lacks sufficient expertise to become qualified as an expert.

During this stage, as with the previous stage, it is important to store notations notes in sortable and retrievable categories. It is recommended that information be placed within subcategories under an overall category of "Crime Reconstruction." Turvey (2008) provides one of the more comprehensive categorizations of evidence during crime reconstruction, to include:

- Sequential Evidence (i.e., when an event occurred, the order in which two or more events occurred);
- Directional evidence (e.g., direction of travel to and from the crime scene, direction of movement within the crime scene, direction of projectiles);
- Locational/Positional Evidence (e.g., the location where something occurred, the position of a person or object at a given point in time;

- Temporal Evidence (i.e., When an event occurred, the duration of events, the passage of time);
- Action Evidence (What actually occurred?);
- Ownership Evidence (Who?) (pp. 160–165).

These are merely examples of subcategories; the list of potential subcategories is endless and is typically created during the process. For instance, the analyst may find that autopsy photographs 15–18 show evidence of lividity, suggesting the victim was positioned on her back for some period of time after death. If that observation is confirmed in a review of the Medical Examiner's report; and crime scene photos 23–31 show the victim was found face down at the crime scene, the analyst might reach a conclusion the victim's body was moved after death, and a subcategory entitled "Postmortem movement of body" could be created under the category "Crime Reconstruction." Note that relevant information may be documented under more than one category or subcategory.

The documentation should include, at a minimum, (a) the relevance/significance of the information (e.g., shows movement of the body after death); and (b) a description of the information that forms the basis for that opinion (e.g., crime scene photos 23–31 depict victim face down, autopsy photos 15–18 depict lividity, medical examiner's opinion). Documenting the analysis in this manner ensures (a) the analyst provides a sound basis for each conclusion reached, (b) a means for peer review of any particular conclusion, and (c) easy retrieval of any given conclusion for incorporation into a written report. It is also critical that the analyst considers alternative conclusions that could be reasonably reached based on the same information, and ensures all reasonable conclusions are documented.

This is also the phase where the analyst begins to assemble all available information regarding the victim and offender to be used in the analysis phase. The analyst will create a note category for the victim and one for the offender. As the analyst reviews case file material, each piece of information relevant to the victim or offender will be annotated and placed in its respective category (Fig. 3).

Case File Information     →     Determinations

| Case File Information | Determinations |
|---|---|
| Crime Scene Photos | Pre-offense actions of victim |
| Crime Scene Video | Pre-offense actions of offender |
| Crime Scene Sketches | Victim actions during offense |
| Autopsy Report(s) | Offender actions during offense |
| Autopsy Photos | Victim/offender interactions |
| Medical Records | Offender responses to victim actions |
| Investigative Reports | |
| Investigative Notes | |
| Search Warrants | |
| Evidence Custody Forms | |
| Laboratory Reports | |
| Digital Forensic Exams | |
| Interviews | |
| Financial Records | |
| Employment Records | |
| Education Records | |
| Financial Records | |
| Mental Health Records | |
| Criminal / Civil Records | |
| Social Media Records | |

**Fig. 3** Criminal investigative analysis phase 2, stage 2: analyses of information

## Phase 3: Victim and Offender Analyses from Investigative, Behavioral and Scientific Perspectives

At this point, the analyst has completely reviewed the case file, analyzed all available pieces of information (individually and in relation to all other pieces of information), and has reached conclusions regarding *what* happened, *where* it happened, and *how* it happened. In this phase, the analyst will evaluate the victim and offender from investigative, behavioral, and scientific perspectives in an attempt to reach the most reasonable conclusions regarding the questions, "Why did it happen?" and "What can we say about the offender?"

In this phase, "*investigative*" refers to the deductive and inductive processes utilized in interpreting information to reach reasonable conclusions, inferences, and theories. The term, "*behavioral*" refers to the analyses of information in regard to what it might infer about such things, including (but not limited to), as characteristics, traits, states, psychological processes, motiva-

tions about the victim and the offender. The term, "*scientific*" refers to the use of empirically derived information, whenever possible, to inform and guide conclusions, inferences, and theories.

In the first phase of this process, the analyst took a multidisciplinary approach in the consultation with professionals within the *forensic* sciences. In this phase, the multidisciplinary approach involves consultation with professionals within the *social* sciences (e.g., social science research analysts, psychologists, and psychiatrists). This phase truly involves the convergence of deductive, inductive, nomothetic, and ideographic methods and applications, as well as interactive partnerships between those who have their roots in the field of criminal investigation and those whose roots are in the realm of social science.

## Definition of Concepts

A number of general concepts can be found throughout the literature regarding the processes involved in criminal investigative analysis. This

section will provide a brief description of some common concepts and their theoretical applications within Phase 3 of the process.

## Concepts Relating to the Victim

### Victimology

Within this process, victimology refers to the complete analyses of all available information regarding the victim (described in phase 2 of this process described above), and it is based primarily on the premise that offenders rarely choose their victims randomly. As a result, a complete analysis of the victim might provide insight into the identity, motivations, and/or characteristics of the offender. In relation to sexual assaults (both single and serial) and sexually motivated serial homicides, offenders often choose their victims based on *availability* (accessibility to the victim), *vulnerability* (victim circumstances, characteristics, lifestyle, etc., that might allow easier victimization), and/or *desirability* (victim meets some specific criteria relating to offender needs/desires). Single (nonserial) homicides can also involve such methods of selection, particularly any homicide where some aspect of the offense involves any degree of sexual motivation (i.e., rape/murder). However, victims in single homicides, particularly female victims, are far more often victims due to the dynamics of the relationship between the victim and offender. Therefore, victimology in nonserial homicides can often prove more beneficial than victimology in serial cases.

When analyzing serial offenses, victimology information (to include offender behaviors and offender/victim interactions in the crime) between victims is analyzed for any commonalities or consistencies which might shed some light on the selection process or motivation(s) of the offender, as well as possible links between offenses.

A thorough evaluation of the victim may or may not provide insight into the offense or offender; however, it will typically identify individuals who could be considered "potential" suspects (particularly in nonserial homicides). The identification of any potential suspect is important for the obvious reason that he/she might be the actual offender. However, it is also important, from investigative and prosecutive perspectives, that potential suspects be identified, evaluated, and eliminated as suspects; if for no other reason than to prevent any reasonable doubt issues at trial if the actual offender is apprehended and charged.

### Victim Risk

One aspect of victimology is determining the victim's *risk level*, which refers to the degree of risk (low, moderate, or high), or likelihood that he or she would become a victim of (a) a violent crime in general, and (b) the specific crime in which he or she was victimized. *General risk level* is a baseline perspective; in other words, the day-to-day level of risk of the victim based on lifestyle, personality, neighborhood dynamics, associations, and other factors. A female prostitute who abuses drugs and lives alone in a high-crime area would be considered to have a high level of general risk. On the other hand, a woman who is married to a corporate executive, lives in an affluent neighborhood, and only leaves the house to take her children to school and shop for groceries would have a low level of general risk. *Specific risk level* is a situational/circumstantial perspective. If the prostitute, in the first scenario above, decided to visit her sister in another city and was victimized during the walk from the train station to her sister's apartment, in an area with a low crime rate, she might be considered to have a low level of specific risk of being a victim in that particular offense. Conversely, if the woman, in the second scenario above visited her sister in another part of the city, left her sister's residence slightly impaired after having three or four alcoholic beverages, and was victimized after getting lost and ending up in a neighborhood with a very high crime rate, she might be considered to have a high level of specific risk for that particular offense. Factors to be considered in determining risk level include (but are not limited to) the victim's lifestyle, associations, habits, judgment, substance use/abuse, personality, mental health, physical attributes, disabilities, security consciousness, actions at the time of the offense, and

state of mind of the victim at the time of offense; as well as the demographics/dynamics of location of offense and circumstances of the offense.

The risk aspect of victimology is most useful in nonserial homicide cases and is based on the following premises (not all inclusive):

| Low general risk, low specific risk | (1) Smallest pool of potential suspects (2) The higher the probability the victim is specifically targeted (3) The higher the probability the offender is acquainted with the victim in some way |
|---|---|
| Low general risk, high specific risk | (1) Offender possibly connected to location/circumstances in which homicide occurred (2) In sexual assaults, victim most likely chosen on offender criteria of availability or vulnerability |
| High general risk, low specific risk | (1) Increased pool of potential suspects (2) Increased difficulty in conducting criminal investigative analysis |
| High general risk, high specific risk | (1) Largest pool of potential suspects (2) Greatest difficulty in conducting criminal investigative analysis |

## Concepts Relating to the Offender

### Offender Approach to Controlling the Victim

When analyzing sexual assaults (both single and serial) and sexually motivated serial homicides, the manner in which the offender gains control of the victim is often described within one of three categories: surprise, blitz, and con/ruse. The *surprise* approach involves quickly gaining control of the victim without the use of injurious force. It typically involves the threatened use of a weapon or threats of harm if the victim refuses to cooperate, and the element of surprise is achieved through the time, location, or circumstances. The *blitz* approach involves gaining control of the victim through the immediate application of injurious force. It is a physical attack and designed to immediately disorient/incapacitate the victim. The *con/ruse* approach involves a deceptive interaction with the victim designed to temporarily gain his or her trust, with the goal of luring the

victim into a situation where the offender can exert physical control.

The offender's method of approach, when analyzed in relation to all other available information, may provide some insight into such things as (but not limited to) the offender's motivations, personality characteristics, level of anger and/or hostility, victim selection criteria, level of criminal sophistication, and geographic comfort.

### Offender Risk

*Offender risk level* refers to the degree of risk (low, moderate, or high) the offender will be detected/apprehended based on where he places himself or herself during the commission of the offense. The concept of offender risk is based on the premise that the level of risk exhibited by the offender may provide some insight into the offense and/or the offender. Some inferences from offender risk level might include (but are not limited to) the following:

| Low offender risk | (1) Higher level of planning and skill (2) Reconnaissance behaviors (sexual assault) |
|---|---|
| High offender risk | (1) Strength of underlying motivation(s) (2) High risk personality structure (3) Impulsive personality structure (3) Substance use (4) Mental health issues (5) Escalation in crimes |
| High offender risk, low victim risk | (1) Specific targeting of the victim |

### Modus Operandi

*Modus operandi*, commonly referred to as "M.O.," is a Latin phrase meaning, "mode of operating." Within the criminal justice community it is generally accepted that M.O. refers to those behaviors an offender engages in during the commission of an offense to ensure successful completion of the crime (successfully achieving his objective). Some definitions also include protection of identity and facilitation of escape (Turvey, 2008, p. 312); although it could also logically be concluded that protecting one's

identity and not getting caught could be subsumed under the overall objective of successful completion of the crime.

M.O. involves a learned set of behaviors that are susceptible to temporary change as a result of situational variables (time constraints, reaction of victim, etc.) or permanent change over the course of a criminal career due to learning more effective and efficient behaviors (through experience, education, technical advances, etc.). M.O. also may remain relatively constant, as some offenders may not feel the need to change what works (Douglas et al., 1992, p. 260; Schlesinger, 2009; Turvey, 2008).

By its very nature, M.O. behavior is a factor in the evaluation of serial offenses, such as burglary, sexual assault, and serial murder. Due to the commonalities among M.O. behaviors in similar offenses, as well as the fact that M.O. behaviors can change over time, careful consideration should be given to linking crimes based strictly on such behaviors. However, given that some offenders maintain a relatively consistent set of M.O. behaviors, they should not be discounted, either. They certainly offer, at the very least, some investigative utility as a basis for considering other crimes that may have been committed by the same offender. When conducting this process for prosecutive strategies, identifying similar M.O. behaviors in other offenses by the offender can assist the prosecutor in drafting motions and arguing for the inclusion of those offenses as 404(b) evidence. Within a nonserial offense, the evaluation of M.O. behaviors is still important in order to discern behaviors that might serve deeper psychological needs of the offender.

## Signature Behaviors

The concept of signature behaviors, like M.O. behaviors, arose out of serial offenses and, therefore most, if not all, of the literature on this topic is based on evaluation of serial sexual offenses (sexual assault and sexual homicide). In general, signature behaviors are those behaviors within the offense that go beyond serving the function of mere necessity to successfully complete the crime, and suggest deeper psychological needs or desires of the offender. The behaviors may be verbal, nonverbal, aggressive, or nonaggressive; and they tend to involve repeated patterns of behavior across similar offenses by the offender.

## Impulsive Versus Compulsive Behaviors

*Impulsivity* refers to the inability to engage, to any great degree, in an evaluative process between stimulus and response. Essentially, this is when an individual engages in behavior to satisfy an immediate urge without fully considering the consequences. *Lifestyle impulsivity* refers to a repeated pattern of impulsive behavior throughout all aspects of one's life. *Compulsivity* refers to engaging in behavior to reduce anxiety caused from unsatisfied, continual urges. Unlike those who engage in impulsive behavior, where the consequences for the behavior are not fully considered, those who engage in compulsive behavior are typically aware of the potential consequences; however, they engage in the behavior because the reward (satisfying the urge and reducing anxiety) is greater than the risk (consequences). In sexually motivated offenses, compulsive behaviors are often viewed as a reflection of sexual fantasy and paraphilic interests. They can be useful for understanding the dynamics of sexually motivated offenses and, when conducting this process for prosecutive strategies, they can provide the basis for arguments, particularly in the sentencing phase of a trial.

## Aggression

Aggression within violent crime is typically viewed as either instrumental or expressive, generally distinguished by the amount of aggression necessary to accomplish the goal of the offense. *Instrumental aggression* refers to that aggression that an offender uses in the course of committing an offense that is necessary to subdue/control the victim. Typically, it involves a minimal amount of aggression (i.e., threat of violence). *Expressive Aggression* refers to that aggression that far exceeds what is necessary to force compliance, and the assault appears to be motivated primarily by deeper psychological needs of the offender. Expressive aggression can take the form of *sexualized aggression*, which is typically viewed as the expression of

violent sexual fantasy, or *non-sexualized* aggression, which is typically viewed as the expression of anger and rage. When evaluating aggression, the analyst must always be aware of factors that might affect the aggression displayed within an offense. Some factors which might account for extreme aggression can include the victim fighting back, offender mental health issues, and substance use by the offender. It is also important for the analyst, when formulating conclusions as to the aggression observed, to be careful regarding the language used in the report, particularly comments on an ultimate issue that may be before a jury.

## Motive

The Merriam-Webster Dictionary (2016) defines motive as, "something (as a need or desire) that causes a person to act" and there is an axiom in the field of behavioral psychology which notes that "behavior is a function of its consequences." In other words, *we do things for a reason*. Typically, motivations fall into one or both of the following general categories: (a) The desire or need to produce wanted (positive) events, feelings, or emotions, or (b) The desire or need to avoid or escape unwanted (negative) events, feelings, or emotions. They can involve material, psychological, and/or physiological (sensory) needs or desires, and they can range from simple to extraordinarily complex. However, all motives share one thing in common: they reside within the minds of the offenders. Therefore, the motivation for any given criminal act can be determined only in one or both of the following ways: (a) directly from the offender (which he or she may not even be able to fully understand or articulate), or (b) inferred from the offender's behavior. In either case, one can never be completely certain of the accuracy or completeness of the ascribed motive(s). This is why criminal statutes do not include motive as an element of an offense. Juries certainly want to know why a defendant committed the criminal act, prosecutors would like to present a motive to the jury, and defense attorneys may argue the absence of motive when one is not readily apparent through the evidence. The reason why an offender was inspired to com-

mit the act, however, is not something that needs to be proven. This observation speaks to the internal and often complex nature of criminal motivation.

Within this process, the analyst will always (to the degree possible) attempt to infer motivation(s) through intent. At times, the analyst may have to differentiate several crimes committed under the same overall offense in terms to gain insight into the offender's intent. For example, an offense might involve the theft of valuable items from a residence, the sexual assault of the occupant of the residence, and the death of the occupant of the residence. An evaluation of all available information might lead the analyst to conclude that the offender believed the residence to be unoccupied at the time he entered it. Therefore, his *primary intent* was to burglarize the residence, while the sexual assault and homicide were *ancillary* acts. While this is useful in understanding the overall dynamics of the offense, the analyst must be careful, particularly in the language used in any written report, when crossing into the legal concept of intent.

While motive, as described above, is the reason behind the criminal behavior, intent, from a legal perspective, refers to whether the offender purposefully committed the act and, depending on the type of intent (general or specific), whether he or she intended the results of the act. They are closely related concepts and, as with motive, intent can only be determined directly from the offender or inferred through the offender's behavior. In general intent crimes, the prosecution need only prove the offender intentionally engaged in a criminal act, regardless of whatever harm resulted from the act. For example, a simple battery statute would have language requiring only intentional and harmful physical contact with another person. If John punches Sam, the prosecution must prove that John intentionally punched Sam, not that he intended to hurt him. The law presumes the natural and probable consequences of John's actions. In specific intent crimes, the prosecution needs to show the offender intentionally engaged in a criminal act *and* intended the resulting harm. For example, an aggravated battery statute would have language requiring inten-

tional and harmful physical contact with another person and intent to cause serious bodily harm. In the above scenario, behaviors that infer specific intent may include such things as language used by John before or during the attack, the viciousness of the attack, itself, or the use of a weapon rather than his fist.

Obviously, one of the primary areas where criminal investigative analysis is utilized is in homicide investigations where the offender could be charged with 1st degree murder, in which specific intent involves the element of premeditation. Premeditation, as defined under most statutes, means the offender formed the specific intent to kill the victim for some period of time, *however short*, before the actual killing. This concept of premeditation being formed in mere moments before the murder is difficult for many people to grasp, as premeditation is generally thought of as the process of formulating an elaborate plan long before the actual offense. Therefore, it is important for the analyst, when formulating conclusions as to the primary intent of a crime to be careful about commenting on the ultimate issue that may be before a jury.

## Concepts Relating to the Offense/Offender

### Staging

Staging refers to the intentional alteration of a crime scene for one of two primary reasons: (a) the protection of the victim or victim's family from shame or humiliation associated with the manner in which the victim is found; or (b) the purpose of misleading the investigators and redirecting the investigation away from the offender. The importance of evaluating a crime scene for the presence of staging is based on the premise that staging a crime scene would only be attempted by an offender who believes he or she would be a logical suspect in the offense. In determining the presence of staging, the analyst will look primarily at all aspects of victimology, laboratory examinations of crime scene evidence, inconsistencies within the crime scene, and inconsistencies in interviews of those close to the victim.

### Body Disposal

It is generally agreed that there are four broad categories in which an offender can dispose of a body: (a) leaving the body "as is," (b) "displaying/posing" the body, (c) "concealing" the body, or (d) "dumping" the body. Leaving the body "as is" refers to leaving the victim at the site of the murder; displaying/posing the victim refers to intentionally positioning the body in some manner; concealing the body refers to an attempt to hide the body, and dumping the body refers to disposing of the body at a location other than the murder site with no attempt to hide it. The manner in which the body is disposed may suggest a number of things, to include the following:

| Leaving the body "as is" | (a) Offender may not believe he or she will be connected to the victim (b) Offender may have panicked/been interrupted and left the scene |
|---|---|
| Displaying/posing the body | (a) Offender may want to humiliate the victim (b) Offender may want to shock the police or whoever finds the body (c) Offender may want to convey some message (d) May indicate offender mental health issues |
| Concealing the body | (a) Offender may have some connection to the victim (b) Offender may want to ensure destruction of physical evidence on the body (c) Offender may want to delay discovery of the body |
| Dumping the body | (a) Offender may believe he or she will not be connected to the victim (b) Offender may want to delay discovery of the body |

## Additional Concepts

### Typologies

Typological systems were first developed in order for clinicians to make informed judgments regarding treatment and management of offenders, particularly sexual offenders. It is a way to

classify an extremely heterogeneous group of criminal offenders into more homogeneous subgroups. There are many benefits to the classification of offenders, such as:

- Facilitating research and the collection of statistical information
- Improving communication among clinicians, researchers, and those involved in the criminal justice system
- Providing general guidelines for clinicians, researchers, and law enforcement personnel

There have been numerous typologies or classifications of offenders and, based on the validity of the underlying research, they can provide useful guidelines for the analyst in identifying possible motivations and characteristics of a specific offender. Rarely will an offender fit "neatly" into a category, and often times there will be some overlap between categories. This does not diminish the usefulness of valid typologies, rather, it speaks to the complexities of human behavior and the limitations of current research. The analyst must be careful to (a) assess typological considerations in relation to all other available information, and (b) not "force" and offender into a specific category.

## Trait Theory

Historically, the goal of personality research has been to find an optimal taxonomy of personality characteristics whereby individual differences can be thoroughly and efficiently assessed through an adequate structural model of human personality variation, eventually leading to a comprehensive theory of personality (Ashton, Lee, & Goldberg, 2004). A growing number of personality theorists favor a hierarchical structure in which higher-order traits (genotypes) are composed of correlated, lower-order traits (phenotypes) (Markon, Krueger, & Watson, 2005). Genotype refers to the basic, fundamental underlying structure of an individual, which is believed to be heritable and stable over time; phenotype refers to expression of the genotype at any given time,

which is dynamic and progressive over time. For example, the higher-order trait of extraversion represents a genotypic quality, while a correlated, lower-order trait, such as gregariousness, represents the phenotypic expression of extraversion. This phenotypic expression will typically change over time, but the underlying genotype will remain fairly constant, particularly past the age of 30 years (Costa & McCrae, 1992a, 1992b; Piedmont, 1998).

Over the last 20 years, a general consensus has emerged among personality theorists that the highest level in the personality hierarchy contains five broad traits (or domains) with numerous correlated, lower-order traits under each of the five high-order traits. This is model is known as the Five-Factor Model and is recognized as the default model of personality structure utilized by personality psychologists (Costa & McCrae, 1992a; McCrae & Costa, 2013). There is a consensus that these traits can provide a broad-based assessment of information relative to an individual's interpersonal style, coping abilities, needs and motives, character, levels of emotional well-being, and other psychological characteristics (McCrae & Costa, 2013; Widiger, Costa, & McCrae, 2013).

In essence, personality can be thought of as those characteristics of an individual that account for how an individual views himself/herself, others, and the world in general; and leads to generally consistent patterns of feeling, thinking, and behaving, particularly when interacting with others. However, this does not mean that there is no variability in behavior. One must also understand the roles of state and situational factors. As stated above, traits typically refer to fairly consistent, long term patterns of feeling, thinking, and behaving. States, on the other hand, refer to temporary feelings and emotions (e.g., happy, sad, angry) that can vary in frequency and intensity. Situations are the contextual (e.g., social, intimate, work) settings in which any given behavior occurs. It is useful to think of behavior as an equation, where trait(s) + state(s) + situation = behavior, and, to understand that there is a complex (quantitatively and qualitatively speaking) bidirectional

interaction between each of the variables. When evaluating behaviors and inferring offender characteristics, *the analyst must take into consideration, whenever possible, trait, state, and situational factors.*

The above are just a few of the many possible concepts that an analyst might evaluate during Phase 3 of the process. As one can see, this is the phase where reliance on professionals in the social sciences (i.e., psychologists, researchers) is critical. The analyst is evaluating (1) all of the information and analyses of the first two phases in relation to applicable (relating to the specific type of offense and offender), (2) theoretical concepts, (3) research findings, and (4) general descriptive statistics (Fig. 4).

## Goals and Limitations of Phase 3

It is generally agreed that the goal of criminal investigative analysis is to develop motivations and characteristics of the offender through analyses of the crime, and in particular, through behaviors exhibited by the offender (Egger, 1999; Gregory, 2005; Holmes & Holmes, 1996; Woodworth & Porter, 1999). As stated earlier, this phase truly involves the convergence of deductive, inductive, nomothetic and ideographic methods and applications. The analyst organized, summarized, and analyzed all available information in the first two phases in order to determine what happened. In this phase, the analyst will analyze each piece of information
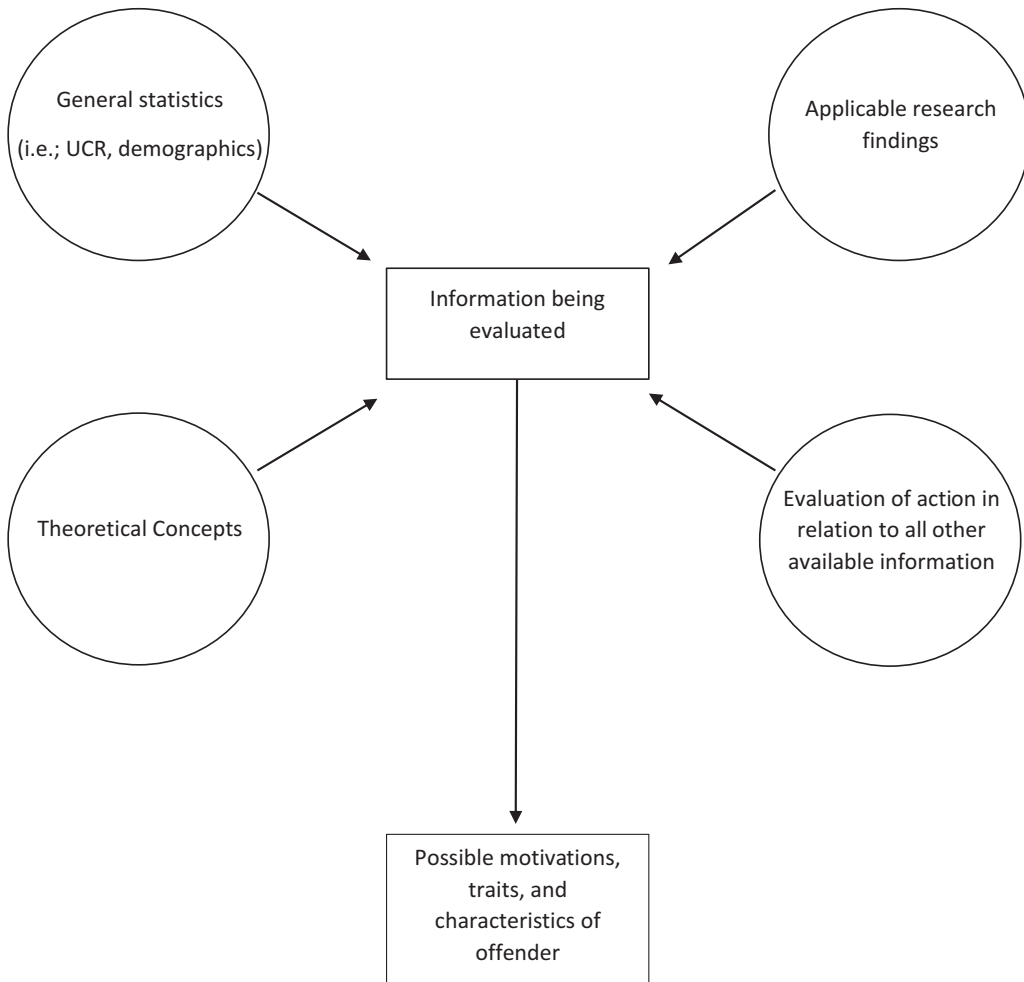


**Fig. 4** Criminal investigative analysis phase 3: analyses of information from behavioral and scientific perspectives

(a) within the context of the concepts described above (and more), (b) in relation to all other available information, and (c) in consultation with professionals within the *social* sciences (e.g., social science research analysts, psychologists, and psychiatrists) to infer possible motivations, traits, and characteristics of the offender.

There are limitations to this process that must be recognized, such as reliance on trait theory and the extrapolation of traits into characteristics of the offender in his or her everyday life; the lack of a true scientific foundation, and the ultimate accuracy of conclusions.

With regard to the reliance on trait theory, there is robust research regarding the correlation between traits under each of the five domains of the Five Factor Model, and that those traits can provide a broad-based assessment of information relative to an individual's interpersonal style, needs and motives, and other psychological characteristics (Costa & McCrae, 1992a, 1992b; McCrae & Costa, 2013; Widiger et al., 2013). Therefore, it is not unreasonable to begin with the identification of one or two traits and then infer additional traits from those. We might then deduce how those traits could manifest in the everyday life of the offender. While some may argue that such an ultimate conclusion should not be made without much more specific information, it is often the very position in which the analyst finds himself/herself. As stated by Funder (2009):

> It seems ironic that global traits are sometimes accused of offering circular explanations for behavior when really it is narrow constructs that manifest this vice. If one observes that someone has many friends and therefore infers that he or she is high on extraversion, then this may lead to a prediction (via the inference of a global trait) that he or she will be high on energy and positive affect and will prefer music to be turned up loud. This prediction might well be wrong, which is precisely what makes it non-circular and interesting. On the other hand, if one observes that someone is dominant in business meetings and concludes that this is because the person has the tendency to be dominant in business meetings, but eschews further inference, then this conclusion has added little to psychological understanding.

With regard to a lack of scientific foundation, the same logic can be applied. Within the context of criminal investigative analysis, if one were to forego any inference that could not be empirically substantiated, then the behavioral aspect of this phase would rarely provide anything of utility to the investigation. Research in its present state can *inform* the analyst in the interpretation of behavioral evidence in regard to what that evidence says about the offender. However, based on present empirical data, the analyst will rarely, if ever, be able to evaluate behavior "A" and conclude, with *certainty* that it means "B" about the offender.

There has been considerable criticism of the accuracy and, therefore, the practical utility of this process (Bartol, 1996; Copson, 1995; Snook, Cullen, Bennell, Taylor, & Gendreau, 2008; Snook, Eastwood, Gendreau, Goggin, & Cullen, 2007). However, this process is about possibilities, not certainties. While there have been considerable advances in the attempt to provide a scientific foundation, there is still a considerable way to go. Investigators will continue to seek assistance in violent crime cases, and the current process can contribute in meaningful ways; however, the criminal investigative analyst should always be forthright about the limitation of the services provided. That is why, at the present time, (1) the process should be utilized, at best, *as an investigative tool*, primarily to prioritize suspects and investigative resources, and develop additional leads; or as a prosecutive tool, primarily to inform prosecutors in regard to the presentation of evidence and argument; and (2) why *qualitative language should always accompany conclusions*.

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# Part IV

# Sexual Deviance and Assault

# Sex Work and Adult Prostitution: From Entry to Exit

Andrea N. Cimino

Sex work, better known as prostitution, has been viewed throughout American history as a moral, legal, and social problem as early as the temperance movement of the 1880s. Since 1910, pimps, customers, and women who sold sex could be punished under the Mann Act (Conant, 1996), thus solidifying sex work as a social and moral evil in the USA (Farley, 2004; Till & Gurin, 1992). This and other anti-prostitution laws drove prostitution underground, and arguably made conditions worse for persons who sell sex—particularly poor and vulnerable communities of color (Musheno & Seeley, 1987; Sanders, O'Neill, & Pitcher, 2009). Today, prostitution costs major metropolitan cities upwards of $6–9 million annually to criminalize buyers and sellers (Allard & Herbon, 2003; Ward, 2012).

The focus of this chapter is on adult prostitution, one of several types of commercial sexual exchanges. The chapter begins by defining sex work and the commercial sex industry. Next, attention is given to philosophical perspectives that shape modern notions of sex work and prostitution, and how this discourse has impacted public perceptions of sex work. An analysis is provided on the variations of sex work experiences,

including the differences between sex work, sex trafficking, prostitution, and transactional sex. The chapter then details policy approaches to address prostitution: criminalization, legalization and decriminalization. The remainder of the chapter focuses on adult women engaged in street-based prostitution, as it is one of the more visible and highly criminalized types of commercial sexual exchanges. This part of the chapter begins by describing who are likely to enter street prostitution and why, what dangers are associated with street prostitution, and how women exit, or leave street prostitution. It concludes with a discussion of three intervention approaches designed to help women exit.

## What Is Sex Work and the Sex Industry?

Broadly, any exchange of money or goods in return for a sexual service is considered sex work. Thus, "sex work" is a generic term referring to commercial sexual exchanges, whereas the "commercial sex industry" refers to the organizations, managers, and workers involved in selling sexual exchanges or services (Weitzer, 2010). Sex work is further delineated by whether sexual exchanges involve direct or indirect contact (Sanders et al., 2009), a distinction that has implications on the illegality of sex acts and services in the USA. For example, indirect sex

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work—pornography, stripping, erotic massages, and phone sex—refers to the sale of sexual fantasies or erotic services without physical contact (Brents & Hausbeck, 2007). Indirect sex work is often legal in the USA and is somewhat more tolerated than direct sex work, which involves intimate, physical contact such as coitus or fellatio. Direct sex work is highly stigmatized in the USA and is illegal for both buyers and sellers; however, sellers, who are typically women, bear the brunt of legal consequences as they face higher fees and jail time in comparison to buyers (Day, 2008).

Direct sex work, in particular, is further separated by the location where it occurs, specifically, on or off-street venues. The main distinction between on and off-street sex work is whether the venue operates under the guise of a business or a recognized sex market (Sanders et al., 2009). For example, off-street sex work, sometimes referred to as indoor prostitution, includes sex exchanges from escorts or "call girls" that happen in private homes, or brothel sex work, which are organized houses of prostitution where buyers can choose from several sellers and have sex on site. On-street sex work refers to prostitution that occurs mainly in outdoor public spaces (e.g., on the street, in cars, and in crack houses). On-street sex work is more likely to be pimp-controlled (Norton-Hawk, 2004; Williamson & Cluse-Tolar, 2002) and frequently far more dangerous that off-street sex work (Weitzer, 2005).

The Internet has recently emerged as an alternative form of off-street prostitution due to its ease of communication and promise of anonymity (Agresti, 2009; Bernstein, 2007; Ray, 2007). There are sites—such as the now defunct Casual Encounters section on Craig's List—for sellers or buyers to post advertisements for paid sex. Other sites such as The Erotic Review, allow buyers to post reviews about women whom they paid for sex (Milrod & Monto, 2012). Similar sites exist for sellers to screen their clients (Ray, 2007). Newer sites promote "sugaring," a kind of sexual arrangement promoted as a dating relationship (Dalla, 2006; O'Leary & Howard, 2001). "Sugar daddies" who are typically rich, older men are matched with "sugar babies," young women or

men who offer affection and companionship in exchange for their daddies' monetary or nonmonetary support, which may include dinner dates, all-expenses-paid travel, or other gifts (O'Leary & Howard, 2001). Most sugaring sites explicitly prohibit prostitution and may cancel memberships if such correspondence occurs through their site; hence, this type of sex work is more accurately described as transactional.

## Philosophies and Variations of Prostitution and Sex Work

Philosophically, sex work is typically described from an *empowerment* or *oppressive* paradigm. For example, the empowerment paradigm, often supported by sex workers' rights activists, largely paints sex work as a means for women to gain economic independence and control over their working conditions (Farley & Kelly, 2000; Weitzer, 2009). Direct sex work is a lucrative, mutually beneficial transaction, similar to any other economic exchange (Weitzer, 2005). Framing sex work as "work" normalizes it. Furthermore, in countries where prostitution is legalized, the government regulates and licenses workers, thereby making it "safer" for buyers and sellers (Vanwesenbeeck, 1994); hence, they seek to legalize sex work. Conversely, the oppressive paradigm frames sex work as "exploitation" and insists that all sex work is a form of gender-based violence (Lorber, 2001). Consequently, simply making prostitution safer or less coercive is not possible, and they seek to abolish sex work (Farley, 2004). In doing so, sex worker advocates criticize abolitionists for taking away a woman's right to choose to engage in prostitution and for labeling prostitutes as victims needing to be rescued or as criminals needing to be punished (Davis, 2000). While the lively debate between sex work advocates and prostitution abolitionists has uncovered compelling arguments as to the consequences each perspective has on women's health, safety, and status in society, it has obscured discussion regarding the varying degrees of victimization and agency (Weitzer, 2010).

The terms "sex work" and "prostitution" are often used interchangeably; however, doing so ignores important variations in mobility and experiences, particularly of violence associated with selling sex. Understanding that there are subgroups, or typologies of sex work has important implications on criminal behavior, criminal justice policy, and research. For example, conflation between terms has made it difficult to determine the prevalence of those involved in illegal sex work (see Vanwesenbeeck, 2001 and Weitzer, 2005 for critiques). Furthermore, there exists a status hierarchy among the subgroups of sex work (Weitzer, 2009) that can be situated on a continuum of increasing danger, illegality, and oppression/agency (Thaller & Cimino, 2016).

The following section describes four types of direct sex work—sex work, sex trafficking, street prostitution, transactional sex—and how they differ with respect to agency, illegality, sociodemographics, reasons for entry, and experiences of violence. Figure 1 summarizes some of the major differences between types of direct sexual exchanges. It is important to note, however, that these are merely examples presented to draw out the many nuances of sex work subgroups. Individual experiences will vary. Furthermore, evidence suggests that sellers are likely to engage in multiple types of sex work throughout their lifetime (Cimino et al., 2017).

## Sex Work

In addition to being a generic term for commercial sex, "sex work" also refers to a typology of paid, direct sex wherein the seller is liberated and empowered by his or her decision to sell sex (Rabinovitch & Strega, 2004). Examples might include brothel workers, call girls, or independent sex workers, for whom sex work is a preferred career choice. Hence, this type of sex worker can be considered a laborer (not a victim) to acknowledge one's agency and choice to enter or exit sex work. Sex work of this nature is typically found indoors, or in countries such as the
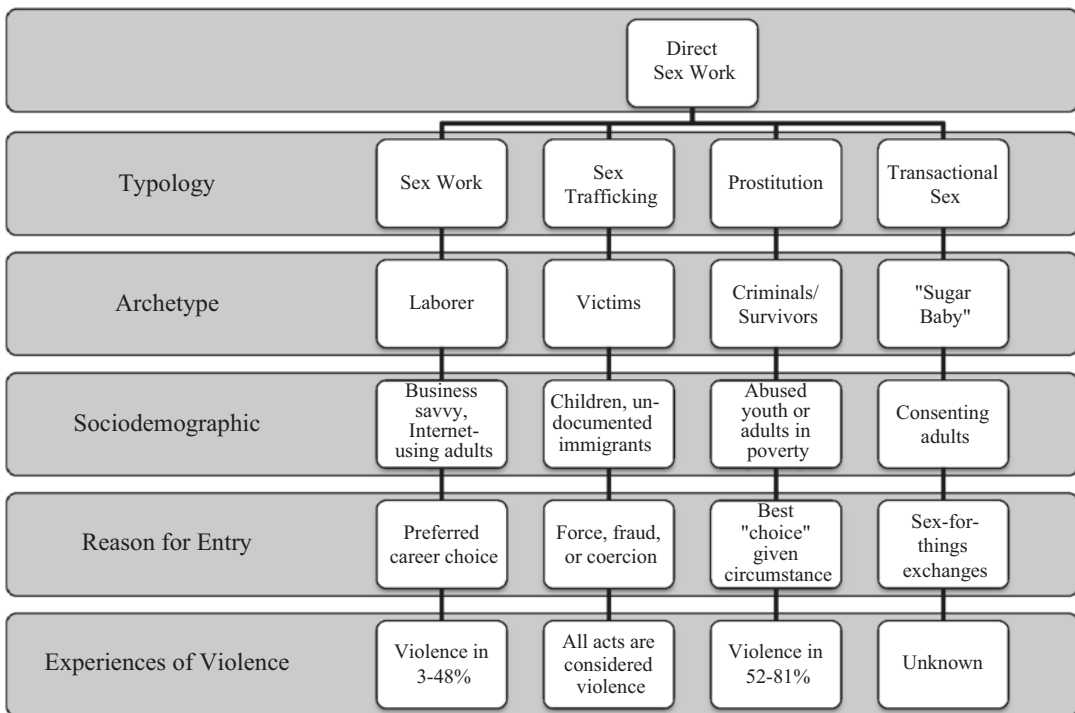


**Fig. 1** Types of direct sex work exchanges.

Netherlands or New Zealand where it is legal to buy and sell sex. However, in the USA, high-profile cases involving Governor Eliot Spitzer, Senator David Vitter, or Reverend Ted Haggard involve this type of illegal sex work (Weitzer, 2010).

A defining characteristic of this type of sex worker, in comparison to street prostitutes or sex trafficking victims, is that workers have the freedom to work or not, are able to screen customers, and can keep most or all monies earned. The type and nature of sexual exchanges involved in sex work is also unique. For example, Lever and Dolnick's (2000) comparative analysis of indoor sex workers versus street prostitutes found that sex workers spend significantly more time with clients than street-based prostitutes and provide more emotional labor (i.e., feigning desire and, at times, the illusion of intimacy), sometimes called "the girlfriend experience" (Milrod & Monto, 2012). Monto (2004) notes that most men believe sex workers enjoy their job, and that the women maintain this façade because "… customers want warmth, sexual passion, or a special connection … even if it is fleeting" (p. 180).

The only reliable estimate of indoor sex workers in the USA is in Nevada, where sex work is legal. According to Brents and Hausbeck (2007), about 500 women are legally licensed to work in Nevada; however, evidence suggests that about 3500 women still work illegally in Las Vegas and the surrounding area (Hausbeck, Brents, & Jackson, 2006). In terms of sociodemographics, this typology tends to attract White, well-educated women (Lever & Dolnick, 2000) who are technologically and business savvy (Bernstein, 2007). Hence, sex workers' increased agency and mobility within and out of sex work. Evidence also suggests that women engaged in this type of sex work are slightly older (Sanders, 2006), and are more likely to enter commercial sex work as adults (Plumbridge & Abel, 2000), also conferring their empowerment and choice. This type of sex work is safer and under less police scrutiny than other types (Sanders et al., 2009). Plumbridge and Abel (2000) and Seib, Fischer, and Najman (2009) conducted studies comparing violent victimization between on and off-street sex workers and both found that off-street sex workers were less likely to experience client-initiated violence and forced sex in comparison to women engaged in street prostitution.

## Sex Trafficking

Another type of sex work, "sex trafficking," refers to persons who are forced or coerced into commercial sex, which can include on/off-street sex work markets, stripping, or pornography (Shared Hope International, 2015). Sex trafficking represents the extreme opposite of sex work, as those who are trafficked are considered victims who cannot or have not consented to commercial sex work. The United Nations' Palermo Protocol (2000) defines sex trafficking victims as persons recruited, transported or harbored by force, coercion, abduction, fraud, deception, or the abuse of power for purposes of sexual exploitation. The US government further specifies that persons under the age of 18 cannot give consent to commercial sex acts (regardless of their choice or desire to do so) and are therefore considered sex trafficking victims (Trafficking Victims Protection Act [TVPA], 2000). Though there is federal legislation that seeks to protect, rather than incarcerate or penalize sex trafficking victims for unlawful acts committed as a direct result of being trafficked, most states continue to incarcerate children and adults for being sexually exploited. For example, in Las Vegas, Nevada, 150–200 children, including some as young as 11 years of age, are arrested for prostitution and related charges despite being too young to give consent (Kennedy, 2015); hence, demonstrating the need for criminal justice policy and practice to differentiate among subgroups of sex work.

There are no credible estimates of the size of sex trafficking due, in part, to speculative methodologies and reports that lump sex and labor trafficking under the umbrella term "human trafficking." For example, reports estimate that 600,000–800,000 persons are internationally trafficked, whereas 2–4 million victims are trafficked domestically, with as many as 70% of whom are forced into the sex industry

(US Department of State, 2004). These figures are in stark contrast to the nearly 3700 sex trafficking victims the National Human Trafficking Resource Center (NHTRC) identified in 2015 (33% of whom were minors). Additionally, a recent report by the Bureau of Justice Statistics identified 2000 sex trafficking victims in a two-and-a-half-year period between 2008 and 2010 (Banks & Tracey, 2011). Although the exact prevalence is hotly contested, research has well established that sex trafficking victims come from all races and genders (i.e., female, male, and transgendered; NHTRC, 2015), yet African American (Banks & Tracey, 2011) and female domestic minor sex trafficking victims are most frequently identified by law enforcement and social service agencies (Kennedy & Jordan, 2014; Reichert & Sylwestrzak, 2013).

Unfortunately, the accessibility of technology has also contributed to the commercial sexual exploitation and trafficking of vulnerable women and children (Godoy, Sadwick, & Baca, 2016). Traffickers and buyers use the Internet to contact, groom, and facilitate the purchase/sale of sex acts from vulnerable persons domestically and abroad. As anti-sex trafficking stakeholders become aware of tactics employed by exploiters, public–private and multidisciplinary entities have pushed to develop technological tools to prevent and combat sex trafficking.

## Prostitution

Prostitution, like sex work, is a generic term to refer to any commercial sexual exchange. However, "prostitution" as a typology more accurately refers to sex work that is oppressive, namely street-based sex work, because it lies at the intersection of extreme poverty, violence, and criminality; hence, prostitutes are viewed as both victims and criminals. For example, a majority of street-based prostitutes enter sex work because they face homelessness, extreme poverty, and lack alternative employment opportunities (Cronley, Cimino, Hohn, Davis, & Madden, 2016; Edlund & Korn, 2002). Many engage in "survival sex" wherein they trade sex for hous-

ing, food, or drugs (Dalla, 2006). Thus, they enter street-based prostitution because it represents the best "choice" given their impoverished circumstances (Davis, 2000).

Although street prostitutes can work independently, between 42% and 80% of women engaged in street prostitution were at some time in pimp-controlled prostitution (Norton-Hawk, 2004; Williamson & Cluse-Tolar, 2002). Pimps are persons who live off the earnings of the prostitute. Many use subtle and/or overt strategies, such as physical violence, to control most aspects of these women's lives, including their continued prostitution (Kennedy, Klein, Bristowe, Cooper, & Yuille, 2007; Williamson & Cluse-Tolar, 2002); however, some women consider pimps their romantic partners (Cimino, 2013; May, Harocopus, & Hough, 2000).

Research has well established that this type of sex work is heavily policed. For instance, street prostitutes comprise 90% of those arrested for prostitution (Lucas, 1995), but are estimated to make up less than 15% of all persons in sex work (Flowers, 1998). High arrest rates among street prostitutes are due, in part, to the fact that this type of sex work is more publically visible than indoor sex work, thus the public tends to associate it with crime and deviance (Weitzer, 2010). Although many persons involved in street-based prostitution have criminal histories that include shoplifting, burglary, fraud, and drug charges, this may reflect the harsh reality of surviving a street-based lifestyle rather than an innate criminal propensity. For example, a study by May et al. (2000) showed that pimped prostitutes averaged 50 sex work-related arrests, whereas non-pimped prostitutes, many of whom were homeless, averaged 22 arrests as young as age 12 (average age was 16).

Some estimates on the prevalence of street-based prostitution exist. The Federal Bureau of Investigation (FBI) reported an annual average of nearly 70,000 persons arrested for prostitution (Office of Juvenile Justice and Delinquency Prevention [OJJDP], 2014), though the number is likely to be much higher as arrests do not capture the entirety. Furthermore, federal arrest data does not delineate between sellers and buyers, and

some prostitutes, particularly juveniles, may also be categorized as sex trafficking victims (Banks & Tracey, 2011). One outdated but rigorous study based on capture–recapture data in Colorado estimated 23 full-time prostitutes per 100,000 populations in the USA (Potterat, Woodhouse, Muth, & Muth, 1990).

In terms of sociodemographics, street sex workers tend to be poor, uneducated, underemployed, or unemployed (Edlund & Korn, 2002). Many have histories of child maltreatment (e.g., physical and sexual abuse, neglect) that persists into adulthood (Cusick, 2002; Nadon, Koverola, & Schludermann, 1998; Silbert & Pines, 1982). In fact, this type of sex work frequently results in serious threats to health and safety: As many as 52–81% of street-based prostitutes experience physical and sexual violence (Plumbridge & Abel, 2000; Raphael & Shapiro, 2004; Seib et al., 2009; Surratt, Inciardi, Kurtz, & Kiley, 2004).Some are murdered (Salfati, James & Ferguson, 2008).

## Transactional Sex

Transactional sex refers to any "sex-for-things exchanges" wherein individuals exchange sex for material goods, housing, protection, or other favors with a paying customer or casual/steady partner (Benoit et al., 2013; Dunkle et al., 2007; Dunlap, Golub, Johnson, & Wesley, 2002). As mentioned earlier, "sugaring" refers to a type of transactional sex arrangement; however, transactional sex can include any dating relationship and sexual exchange that blurs the artificial division between commercial and noncommercial exchanges (Thaller & Cimino, 2016). The women appear to be consenting adults who enter transactional sex relationships after coming to the reality that the female body can be used as currency in *any* sexual relationship. Because these relationships are within the confines of socially acceptable behavior, women engaged in transactional sex are unlikely to be identified as sex workers or prostitutes despite considerable overlap between the phenomena (Boyle et al., 1997; Dunkle, Wingood, Camp, & DiClemente, 2010).

Although this is an understudied phenomenon in the USA, one study by Dunkle et al. (2010) estimated that 33% of African American and White women in the US engage in noncommercial, transactional sexual exchanges, whereas 4% participate in commercial exchanges (i.e., prostitution). The authors defined noncommercial sexual exchanges as broadly as staying in a relationship longer than one wanted to because of economic considerations. They found that African American women were more likely than White women to engage in transactional sex (21.6% vs. 10.5%), and were more likely to trade sex with a nonregular partner (13.1% vs. 2.9%). Dunkle et al. (2010) found that sex trading was associated with a lack of education, difficulty meeting basic needs (e.g., food, clothing, and shelter), and the need to care for dependents, which reflect situations that also compel street prostitutes to engage in survival sex.

It is not known how much violence exists in transactional sex relationships. Most of the research in this area involves sex workers outside of the USA who financially depend on nonpaying intimate partners; hence, these women are involved in a combination of prostitution and transactional sex, and likely do not reflect transactional sex relationships in the USA. For example, one study of female sex workers in Kenya reported similar rates of physical/sexual violence and financial support from both paying and nonpaying partners (Benoit et al., 2013).

## Policy Approaches to Address Prostitution

As the above analysis demonstrated, sex workers experience varying degrees of empowerment and oppression. Framing sex work as "work" ignores gender-based violence and crimes against women, yet framing it as "exploitation" overshadows women who earn living wages and feel empowered by sex work. It is hard to dispute that sex work is a business. The very nature of sex work is embedded in capitalism: an exchange between two individuals (seller and buyer) who decide on a mutually agreeable exchange of

goods (money, drugs, food, or place to stay) for services (sex, intimacy), with the desire to maximize profit (the number of interactions) and minimize loss (money versus time spent per exchange). It is also difficult to ignore the reality that the illegal sex trade, particularly sex trafficking, is linked with organized crime (Farley, 2009), and severe forms of violence against women.

Policies to address prostitution struggle with the same issues—is prostitution a form of employment or a criminal activity? Criminalization, legalization, and decriminalization represent three approaches to address prostitution; however, none are completely free from critique (Day, 2008; Farley, 2004, 2009). Below presents a description of each of the three approaches and an analysis of critiques from sex workers' rights advocates and abolitionists.

## Criminalization

In America's national infancy, brothel-based sex work was common and somewhat acceptable, only becoming a target of reform in the temperance movement of the 1880s (Sloan & Wahab, 2000). Progressive Era reformers observed that more young, single women were working out of necessity, inevitably leading some to prostitution, which they viewed as immoral (Abramovitz, 1996). Operating under the belief that prostitution could be eliminated through harsh and rigorously enforced laws, criminalization was the first US policy adopted to deal with prostitution. Anti-prostitution specialty courts, prisons and vice squads began to appear as early as the Mann Act in 1910 (Conant, 1996; Musheno & Seeley, 1987). Radical feminists and activists in the 1970s continued to argue for the criminalization of prostitution, asserting that prostitution is always about control of women and that these criminal sanctions may help reduce violence against women (Lorber, 2001; Lucas, 1995).

Today, prostitution continues to be illegal in most of the USA; however, decades of criminal sanctions have done little to decrease the number of women who enter sex work (Norton-Hawk, 2001). Furthermore, because street prostitution is more publically visible than indoor prostitution, criminalization policies have unfairly targeted on-street sellers. Hence, some have argued that anti-prostitution laws have driven the more dangerous forms of sex work (i.e., street prostitution) deeper underground, magnifying the problem and making sex workers vulnerable to exploitation from customers, pimps, and brothel owners (Musheno & Seeley, 1987; Norton-Hawk, 2001; Weitzer, 1991). For example, to reduce their visibility, street prostitutes take customers to remote or unfamiliar places where rape or abuse can occur unnoticed (Marcus, Oellermann, & Levin, 1995; Pauw & Brener, 1997). They also spend less time screening clients or engage in riskier acts at a higher price (i.e., unprotected sex, anal sex) to make more money quickly (Alexander, 1998). Pimps also capitalize on women's fear of arrest. One way a pimp can convince a prostitute to work for him is through offering protection from violent customers or by posting bail when a prostitute gets arrested while working. Some pimps legitimately offer help and protection, but many are exploitative (e.g., take profits, force drug use, demand quotas) and use violence to control their prostitutes (Kennedy et al., 2007; Williamson & Cluse-Tolar, 2002).

Another unintended consequence of the criminalization of prostitution is that it makes exiting sex work much more difficult. For example, in instances where prostitution is a felony, women with criminal records are prohibited from some types of legitimate employment, essentially trapping them in prostitution (Norton-Hawk, 2001; Sanders et al., 2009). Furthermore, Høigård and Finstad (1992) observed that some prostitutes had to sell themselves to pay court fees because they had no other source of income. In sum, the deterrent affect of criminalization appears lost, as the plethora of arrests and incarcerations indicate that these policies did little to stop women from prostituting.

Believing that prostitution is inevitable, some policy makers and activists have proposed legislation that either legalizes or decriminalizes sex work. Underlying both efforts are empowerment paradigm assumptions that prostitution is an

occupational choice that is not exploitative; any harms associated with prostitution (i.e., physical health and safety risks) are actually lessened via legalization or decriminalization (Day, 2008; Vanwesenbeeck, 1994). Evidence of the success of legalization or decriminalization in the USA or abroad is mixed (Sanders et al., 2009). An examination of both policies is explained below.

## Legalization

Legalization of prostitution is state-regulated sex work through licensing and regulation (West, 2000). Such regulations often include registration and licensing requirements, mandatory health examinations, taxes to generate revenue, or specially zoned geographic areas where prostitution can take place (Sanders et al., 2009; Weitzer, 1991). Commonly cited reasons to legalize prostitution include public health concerns such as safer working conditions (i.e., mandated condom use and testing), control over when and where to work, and increased safeguards and barriers to prevent child sexual exploitation (Farley, 2004; Sanders et al., 2009; Vanwesenbeeck, 1994). Others believe that legalized prostitution would guarantee protection of sex workers' rights; for example, when they need legal recourse for on-the-job physical or sexual assault, violation of labor laws, or allowing sex workers to unionize. Furthermore, legalizing prostitution could save millions of dollars in law enforcement and criminal justice costs, and prostitution could even be a source of revenue, as in the Netherlands where 5% of the gross domestic product is from prostitution (Daley, 2001).

Sex workers themselves have voiced poignant critiques against legalization. To some sex workers, the concept of state-controlled prostitution is exploitative. For example, states acting out of economic interests would earn revenue from prostitution, which they feel is no different than working for a pimp (O'Connell Davidson, 1998; West, 2000). Ultimately, the state, pimps, and brothel owners—who view laws against pimping as barriers to business—would benefit the most from legalization because they, not sex workers,

would be in a position to control competition (West, 2000), demand, and surplus (O'Connell Davidson, 1998).

Furthermore, sex workers' rights activists feel that some regulations violate civil rights (Weitzer, 1991; West, 2000) and would perpetuate social stigmas already heavily associated with prostitution (Weitzer, 1991). For example, registering as a "card-carrying prostitute" is stigmatizing and would cause sex workers to lose their anonymity (Farley, 2004). Sex workers who refuse to get licensed would face penalties and fines, essentially pressuring sex workers to register as a prostitute or enter third party-controlled prostitution (i.e., brothels) (O'Connell Davidson, 1998). Other critics find the compulsory health examinations are a violation of privacy (Sanders et al., 2009; Weitzer, 1991; West, 2000).

As described above, prostitution is heavily associated with crime and deviance (Weitzer, 2010), thus legalizing prostitution can be unpopular as politicians and their constituents worry that state-condoned prostitution would lead to the proliferation of prostitution (Weitzer, 1999). Few, if any neighborhoods want the sex trade in their backyard. Rather, areas zoned exclusively for sex work would likely be on the periphery of a town and physically isolated, thus reinforcing the social rejection and stigmatization of sex work (Farley, 2004).

Evidence suggests that legalization has not increased the safety of sellers, and in some cases has increased illegal prostitution and trafficking. For example, sex workers have reported that mandatory tests have not benefited their health, particularly since only sellers—not buyers, are tested (Day, 2008; Farley, 2004). Furthermore, a recent study examining data from 149 countries where prostitution is legalized indicated that legalization has not increased protection of sex workers, and in some cases was detrimental to victims of forced prostitution and human trafficking (Cho, 2015). Last, it is a misconception to assume that legalized prostitution would get rid of illegal prostitution. Those who are pushed out of the legal market because they do not want or cannot be licensed may be forced to operate illicitly, particularly if they engage in survival sex (Weitzer, 1999).

## Decriminalization

Some sex workers' rights advocates feel that decriminalization of prostitution is a fairer and more balanced approach to the drawbacks of criminalization and legalization. Unfortunately, there is little public support for decriminalization, and most policy makers oppose it (Weitzer, 1999). Two forms of decriminalization exist: (a) formal decriminalization wherein criminal sanctions prohibiting prostitution are removed from the law or the severity of the sanctions is reduced (Musheno & Seeley, 1987; Sanders et al., 2009); (b) "de facto decriminalization" in which police are encouraged to ignore or selectively enforce prostitution laws; however, the laws prohibiting sex work still exist. It is well known that prostitution enforcement is costly (Norton-Hawk, 2001; Pearl, 1987) and that criminal convictions can prevent women from legitimate employment, thus trapping sex workers in prostitution (Sanders et al., 2009). Decriminalized prostitution is intended to alleviate some of these risks.

COYOTE—an acronym for "Call Off Your Old Tired Ethics"—is one group that has challenged legalization efforts and advocated for the repeal of anti-prostitution laws (Jenness, 1990; Weitzer, 1991). Their argument is that prostitution is not a social or moral evil, but rather a means for women to gain economic independence, a matter or sexual self-expression, and an occupational choice (Jenness, 1990; Weitzer, 1991). They further argue that the creation of prostitution-free zones associated with legalization of prostitution would perpetuate the assumption that prostitution is always visible. This depiction erroneously conflates sex work with class status, rather than representing the full continuum of sex work, which also includes high-paid escorts and independent sex workers who solicit clientele via the Internet and meet at private residences. Another justification for decriminalization is that prostituted women would have more legal redress if they are raped or beaten (Farley, 2004). Hence, decriminalization advocates assume social and moral stigmas would cease once criminal sanctions are removed.

Critics argue that decriminalization does little to protect against violence that seems inevitable in prostitution or to prevent psychological harm, such as stigma, depression and PTSD commonly associated with engaging in prostitution (Farley, 2004). In fact, some sex workers have not organized in support of decriminalization for fear of being arrested or stigmatized by their community or families (Sanders et al., 2009; Weitzer, 1991). Moreover, decriminalization may normalize gender inequality. For example, Conant (1996) supports decriminalized prostitution to meet basic male biological needs for sex, particularly for men who cannot attract unpaid sex partners. Married men also benefit from satisfaction and "adventure" that paid sex provides. These claims reflect and reinforce cultural notions of male privilege.

Decriminalization is not a panacea, particularly in countries that have de facto policies that outlaw buying, but not selling, sexual exchanges. For example, in Canada selling sex is legal; however, buying sex and most of the activities associated with selling sex, such as pimping, driving escorts to meet customers, and pimping, are criminalized (Van der Meulen, 2011). Sex workers in Canada have reported that because clients are fearful of soliciting in public places, the workers have less time to screen clients, which increases their chances of encountering a dangerous client. Other critics note that Canadian sex workers are prohibited from social services agencies, including healthcare, affordable housing, and police protection.

## Focus on Adult Street Prostitution

As demonstrated throughout this chapter, women who engage in street-based prostitution represent a subgroup of sex workers situated at the end of a continuum of increasing danger, illegality, and oppression. Compared to other types of sex workers, street prostitutes lie at the intersection of extreme violence, poverty, and criminality. Failed efforts to eradicate prostitution through criminal sanctions give weight to the notion that prostitution continues to thrive because the larger

economic system allows such "opportunities" to exist. It is difficult to ignore that women, particularly women of color, have fewer employment options and higher unemployment rates than men, regardless of education and skills, and that women are more likely to be poor than men (Abramovitz, 1996; Day, 2008). Taking economic and gender inequalities into consideration, it becomes clearer that women's motivation to enter street-based prostitution may be out of necessity, rather than a "voluntary" exchange. In the following section, we explore in greater detail how women enter and exit street prostitution.

## Who Are Street Prostitutes?

Women engaged in prostitution are not homogenous in terms of demographics or experiences. The persons most at risk for entering street prostitution, however, are girls and young women of color who disproportionately experience poverty and have unequal educational and occupational opportunities (Davis, 2000; Lucas, 1995). On average, girls begin street prostitution careers as early as 12–14 years of age, whereas adult women begin around age 18 (May et al., 2000; Norton-Hawk, 2004; Saphira & Herbert, 2004; Silbert & Pines, 1981). It is well documented that many street prostitutes have histories of maltreatment as children (i.e., physical/sexual abuse and neglect; Kramer & Berg, 2003; McClanahan, McClelland, Abram, & Teplin, 1999; Nadon et al., 1998; Silbert & Pines, 1982); however, child maltreatment is a correlate, not a cause of prostitution. Experiencing childhood victimization, however, does make one especially vulnerable to prostitution. Furthermore, the prostitutes' families of origin are rarely pillars of stability. In a study of 200 adult and child prostitutes, 67% reported having a parent missing from their home; 19% of fathers and 11% of mother were convicted of a crime; 51% witnessed their father violently hit their mother, and 22% saw their mother violently hit their father (Silbert & Pines, 1982). Another study of 50 incarcerated female prostitutes found that close to 60% had one or both parents addicted to alcohol or drugs (Norton-Hawk, 2001).

## Why Do Women and Young Girls Enter Street Prostitution?

Though individual reasons for entering street prostitution vary, poverty and the desire for financial independence consistently underlie the motivation to enter street prostitution (Edlund & Korn, 2002; Weitzer, 2009; Williamson & Folaron, 2003). Most women engaged in street prostitution lack education or job skills and see prostitution as their only option to make money (Mitchell, Finkelhor, & Wolak, 2010; Saphira & Herbert, 2004). Prostitution becomes an attractive option because it represents a job earning quick money with few skills or time commitments, and often exceeds earnings possible through legitimate employment (Edlund & Korn, 2002). The media often report that prostitutes earn thousands of dollars a day, serving to recruit women to the trade—the reality is that most of their endeavors are not lucrative, nor are they steady (Høigård & Finstad, 1992). In Vancouver, Canada, the median weekly income for street prostitutes under age 25 was $300, which decreased to $200 for women 25 and older (Deering, Shoveller, Tyndall, Montaner, & Shannon, 2011). Street prostitutes in Los Angeles averaged $458 per week in 1991 (Edlund & Korn, 2002).

Although sex work *can* be a sexual choice and lucrative business venture, it seems more likely that street prostitutes are victims of their social location, exploited by the promise of financial independence. For example, young girls or women fleeing abuse from their parents/caregivers or a romantic partner may first engage in survival sex for housing, food, or drugs, then never leave prostitution (Dalla, 2006). Some are coerced or forced into street prostitution by their friends, partners, or other exploiters who promise to keep them safe on the street (Kennedy et al., 2007; Silbert & Pines, 1982).

Research also suggests that some women enter prostitution to support their drugs habit (Edlund & Korn, 2002). However, other evidence suggests that women turn to drugs after their initiation into prostitution as a way to self-medicate and cope with violence, stigma, and guilt

associated with selling sex (Williamson & Folaron, 2003; Young, Boyd, & Hubbell, 2000). Kennedy et al. (2007) reported instances where drug dealers pimped out young women in a type of debt-servitude focused on getting another "fix."

## What Dangers Are Associated with Street-Level Prostitution

The occupational hazards of street-based sex work are unique: exploitation, violence, rape, and murder. The damaging effects that street prostitution has on women's emotional and physical health is undeniable. Between 33% and 85% of street prostitutes report having been threatened with weapons, physically assaulted, or forced to have sex while prostituting (Farley & Kelly, 2000; Surratt et al., 2004). Though studies vary, about 60% of prostitutes have suffered abuse from customers (Pearl, 1987). Prostituted women, especially when under the influence of drugs, are at increased risk for violence, robbery, and forced sex (Sanders et al., 2009). Around 60% of pimps are physically or mentally abusive (Giobbe, 1993; Silbert & Pines, 1982). Although clients and pimps are the main source of violence against prostitutes, there are reports of police officers raping prostitutes (Pearl, 1987; Williamson, Baker, Jenkins, & Cluse-Tolar, 2007) or demanding free sex for police protection (Pauw & Brener, 1997). Furthermore, prostitutes encounter a murder rate 18 times higher than the general population (Potterat et al., 2004). Customers are responsible for 57–100% of prostitute homicides throughout urban cities in the USA (Brewer et al., 2006).

Women engaged in street prostitution face a number of physical health consequences such as increased risk of contracting human immunodeficiency virus (HIV) and other sexually transmitted infections (STI; Farley & Kelly, 2000; Vanwesenbeeck, 1994). Performing sex repeatedly leads to repetitive stress injuries from hand jobs and fellatio, feet problems from walking long hours in high heels, and chronic urinary tract infections (Alexander, 1998). Being home-less and living on the streets, as well as illicit drug use, can further diminish the prostitute's physical health (Farley & Kelly, 2000; Williamson & Folaron, 2003).

Street prostitutes are likely to experience some form of mental health problems, particularly post-traumatic stress disorder (PTSD). For example, in a study of prostitutes in nine countries, 68% met the criteria for PTSD (Farley & Barkan, 1998). Stressors such as trying to avoid arrest, fear of violence from customers and abusive pimps, as well as the expected stigma associated with prostituting, exacerbate mental and physical health problems (Williamson & Folaron, 2003). In a study of over 1600 women, a prostitute's odds of attempting suicide was 1.44 times higher than nonprostitutes after adjusting for age and abuse (Burnette et al., 2008).

## How Do Women Leave Street Prostitution?

There is a limited but growing body of literature on the street-based prostitution exiting process (Baker et al., 2010; Cimino, 2012, 2013; Hedin & Masson, 2004; Oselin, 2010; Sanders, 2007). Most scholars agree that exiting street-based sex work is more complex than deciding to stop selling sex. More accurately, exiting is a process by which women come to the realization and take steps to disengage from prostitution. Theories on exiting describe it is a result of a complex interplay of factors that come together facilitating one's ability to leave prostitution: structural (e.g., employment, welfare), relational (e.g., family, friends), and individual (i.e., shifting attitudes, belief in personal change). Some women experience catalysts such as witnessing and experiencing violence (Oselin, 2010), being burnt out (Vanwesenbeeck, 1994, 2005), facing incarceration (Sander, 2007), and/or coming to terms with declining economic viability (Dalla, 2006). Others experience a shift from glamorization to disillusionment with prostitution (Williamson & Folaron, 2003). Sometimes a subtler transition occurs from a "visceral" and "conscious awareness" about leaving prostitution (Baker, Dalla, & Williamson, 2010, p. 591). While success often hinges on access to supports and

resources (Sanders, 2004), women also possess an "internal desire" to change (Baker et al., 2010, p. 591). In other words, women *must want or intend to leave* prostitution (Cimino, 2012, 2013, in preparation).

Unfortunately, dropping out of exiting programs and returning to sex work is the more likely outcome. For example, in Benoit and Millar's (2001) study of 201 Canadian sex workers, 70% attempted to exit sex work at least once, while over half exited three or more times. Women who successfully exited made an average of 5.6 attempts. Similarly, in a study of brothel sex workers in Thailand, 60% ($N = 42$) quit and reentered sex work at least once (Manopaiboon et al., 2003). While 16 of these women successfully left prostitution (38%), nearly a quarter said they would return to prostitution if their situation made it necessary. Studies by Davis (2000; $N = 291$), Saphira and Herbert (2004; $N = 47$), and Dalla (2006; $N = 18$) suggest that about 20–25% of women in programs successfully leave prostitution.

These studies reinforce just how difficult it is to exit street prostitution and stress the need to examine barriers to exiting (see Baker et al., 2010 for a review). Some common structural barriers include economic inequalities, lack of affordable housing, and reductions to welfare (Farley & Kelly, 2000; Mayhew & Mossman, 2007; Sanders, 2004). Gendered shame and social stigma have also been liked to women's diminished ability to exit prostitution (Baker, Dalla & Williamson, 2010) as well as increased dropout rates for women attending a program to help them leave sex work (Roe-Sepowitz, Hickle, & Cimino, 2012). Evidence shows that specialized treatment for trauma and underlying mental health issues can alleviate stigma and shame (Arnold, Stewart, & McNeece, 2000; Davis, 2000). Relearning how to trust has also been linked to successful exits (Preble, 2015; Rabinovitch & Strega, 2004).

## What Interventions Are Available?

Street-level prostitution, more so than other types of sex work, has garnered attention from scholars, law enforcement, and social service providers

(Weitzer, 2009) with the shared goal of helping women exit prostitution. As a result, a number of intervention approaches have been designed to help women leave prostitution, if they desire to. Broadly, three types of interventions exist: (1) diversion and law enforcement-based initiatives, (2) formal exiting programs, and (3) harm-reduction approaches (see Mueller, 2012 for examples). Generally, diversion and formal exiting programs are designed for women who wish to never return to sex work and offer services designed to stabilize, treat, and rehabilitate women. Harm-reduction approaches seek to mitigate exposure to violence, diseases, and other harm, without the assumption that they will exit. A discussion of these approaches follows.

## Diversion and Law Enforcement-Based Initiatives

Diversion programs operate similar to drug-court models whereby persons convicted of prostitution are mandated to obtain court-supervised treatment, which may include case management, mental health and substance abuse treatment, or other supportive services. The level of law-enforcement involvement varies, but in many cases diversion is offered in lieu of criminal charges (Wiechelt & Shdaimah, 2011). For example, Project ROSE coordinates undercover sweeps in high prostitution areas. Street prostitutes who are arrested, if eligible, are offered a six-month diversion program, which includes access to social services, addiction treatment, and counseling (Roe-Sepowitz, Gallagher, Hickle, Perez-Loubert, & Tutelman, 2014). Upon successful completion of the program, charges are dropped. Prostitutes who decline to enroll or who are not eligible for the program, however, face prosecution and jail time, which has led to harsh criticisms of this program (Wahab & Panichelli, 2013). Other diversion programs, such as the Prostitution Diversion Initiative in Dallas, TX, set up a mobile court and triage center where prostitutes access services if they choose to exit (Fenili et al., 2011).

The participants' desire to change and willingness to sustain a prostitution-free life are critical to the goals of most diversion programs (Fenili

et al., 2011; Roe-Sepowitz, Hickle, Loubert, & Egan, 2011). However, a major limitation of diversion programs (as opposed to voluntarily entering a program) is that some sex workers only choose treatment to avoid criminal charges. Hence, though women have entered a program, they may not be "ready" or motivated to exit prostitution, leading to recidivism rates as high as 84% (Fenili et al., 2011).

## Formal Exiting Programs

Formal prostitution-exiting programs are designed to address the causes and consequences of why women entered prostitution (Preble, Peatorius, & Cimino, 2015). Few states in the USA have prostitution-exiting programs, and some of them are offered as part of diversion programs (Wahab, 2006). One example is Standing Against Global Exploitation (SAGE), which provides prostitution offender remediation along with counseling, case management, and street outreach (Preble et al., 2015). Though specific interventions can vary, most exiting programs offer supportive services to address immediate health and safety concerns, emotional and sexual traumas, and may provide substance abuse treatment, housing and life skills education, or opportunities for gainful employment (Arnold et al., 2000; Davis, 2000; Mayhew & Mossman, 2007).

As mentioned earlier, about 20–25% of women involved in formal exiting programs have successfully left prostitution. It is important to note, however, that empirical data on the effectiveness of these interventions is limited due to methodological issues regarding sampling (Weitzer, 2005), lack of adequate assessments (Cimino, 2012; Gerassi, 2015), and inconsistent definitions of a successful exit (Davis, 2000; Mayhew & Mossman, 2007).

## Harm-Reduction Programs

Interventions that focus on reducing the harm associated with sex work are intended to address public health concerns such as the spread of HIV/AIDS and the prevention of violence (Cusick, 2006; Rekart, 2005). The goals of harm-reduction programs are to safeguard sex workers and stop the spread of disease (Rekart, 2005). As such,

harm-reduction programs typically operate from a public health model that focuses on physical and sexual health needs. Harm-reduction services can include education, peer outreach, access to clean needles and condoms, medical treatment, and safety tips (Mayhew & Mossman, 2007; Rekart, 2005). Harm-reduction approaches have been effective in reducing HIV and STIs and violence against sex workers (Jana, Rojanapithayakorn, & Steen, 2006). For example, Thailand's condom use policy enabled sex workers to insist condom use, which reduced STI rates (Hanenberg, Rojanapithayakorn, Kunasol, & Sokal, 1994).

## Conclusion

This chapter demonstrated how philosophical perspectives that frame sex work as "work" versus "exploitation" shape our criminal justice policies. Poignant differences among sex work, sex trafficking, prostitution, and transactional sex were identified. Specifically, variation among these typologies of sex work was due to sex workers' socioeconomic background (e.g., poverty, education), venue (i.e., off/on-street), working conditions (e.g., when/how often to work, condom use, access to technology to facilitate exchanges [e.g., websites, credit cards]), reasons for entry, and how issues related to visibility/stigma (e.g., inability to hide on-street sex work) lead to policies that target adult women in street prostitution. The latter half of the chapter focused on how women enter and exit street-based prostitution and discussed intervention programs designed to help women leave prostitution.

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# Child Sexual Abuse and Molestation: The Spiral of Sexual Abuse

Joe Sullivan

## Introduction

Child sexual abuse and molestation is common. Large quantitative research studies demonstrate that many people indicate they suffered sexual abuse as children (McGee, Garavan, de Barra, Byrne, & Conroy, 2002; Pereda, Guilera, Forns, & Gomez-Benito, 2009; Radford et al., 2011)—as high as 25% of males and 30% of females in some cases (McGee et al., 2002). However, the number of victims who report their abuse to the police can be as low as 3–6% (McGee et al., 2002) and the level of convictions arising from reported offenses can be as low as 7% (UK Ministry of Justice, 2011). It has been noted that identifying victims of sexual exploitation, even by child protection professionals, can be seriously lacking (Rafferty, 2016). Hence, most sexual abuse and molestation do not lead to a complaint, investigation, prosecution, or conviction. The obvious conclusion is that convicted sex offenders may not be representative of the population of child molesters and other sexual abusers.

In support of this point, there is evidence that the criminal records of convicted sex offenders may not be relied upon to indicate the nature and extent of an individual's molesting and sexually abusive behavior. Bourke and Hernandez (2009) found that 85.6% of individuals convicted of a single noncontact offense involving child pornography admitted (in the course of therapy) prior undetected contact offenses against children. Research into the sexual histories of sex offenders using polygraph examination suggests that while criminal records show an average age of first conviction as 28 years, undetected offending typically begins at 13.5 years (Wilcox & Sosnowski, 2005). Additionally, concerns have been raised about the categorization of sexual offenses across jurisdictions and agencies; specifically, whether current categorization methods result in a skewed representation of the extent and type of sexual violence (Government Accountability Office, 2016).

Despite the issues surrounding undetected criminality and low statistical base rates, as well as potential problems from faulty categorization, researchers tend to use samples of convicted sex offenders for two reasons. First, because their status as child molesters or abusers has been established beyond any reasonable doubt; and second, for the pragmatic reason that it is simply easier to obtain samples of convicted offenders. At minimum, caution should be taken when drawing inferences and conclusions based on criminal convictions since they tend to be a poor indicator of the nature and extent of an individual's true sexual offense history. And if convictions are poor indicators of the type, level and degree of abusive behavior engaged in by offenders, it

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goes without saying that examining the characteristics of offenders based on their conviction history has similar limitations.

Historically, there has been greater use of quantitative research methodologies in the study of sexual offending against children (Worrall, 2000) despite evidence that such approaches may not provide insights into the causal effects of offending. In response to the need for a greater understanding of the causes of sexual crimes against children (see Ward, 2014), there has been a growing acceptance of qualitative methodologies and a recognition that the two paradigms can coexist and even be considered compatible (Brent & Kraska, 2010; Lucero et al., 2016; Robson, 2011). In fact, evidence-based practices should be built on strong foundations of qualitative research (Hanson, 2014). This model appears particularly well suited for studies with perpetrators of sexual crimes against children, a diverse group who describe a variety of causal factors and pathways to offending (Heffernan & Ward, 2015; Perrot, Bénony, Chahraoui, & Juif, 2014; Seto, 2015; Ward, 2014).

This chapter describes the latest findings of a longitudinal qualitative study of adult males who perpetrated sexual crimes against children. Specifically, it is concerned with how convicted and nonconvicted perpetrators of child sexual abuse experience and describe the development of their sexually exploitative behavior toward children. A qualitative methodology is used because, unlike quantitative approaches, it is well suited to explore the human variable factor (e.g., motivations, feelings, and thoughts) to examine the unique contributions of participants and provide a deeper insight into the individual (Creswell, 1994; Frost, 2011; Radley & Chamberlain, 2001; Ragin, 2011).

## Method

The use of qualitative approaches to explore sexual crimes against children has become more common in recent years (Mannix, Dawson, & Beckley, 2013; Pflugradt & Allen, 2012; Winder & Gough, 2010). Qualitative methodologies pro-vide a rich array of cognitive tools for incorporating phenomenology and agency issues into "interlevel theories" (Ward, 2014).

The data for the present study was gathered using a semistructured interview. The semistructured interview is the most frequently used tool for generating data in qualitative research to create hypotheses that emerge from the analysis (Smith, 1995). For this longitudinal research project we used the semistructured interview to assess whether participants experienced events they felt influenced their subsequently sexually abusive behavior. We then explored the significance and meaning the interviewee attributed to these events.

Rubin and Rubin (2011) noted that qualitative interviews are effective in describing why, and in what way, change occurs, thereby leading to the development of theory. To this end, participants were asked about their early life experiences, particularly retrospectively formative events in their lives. They then were asked to report how these events influenced the developing nature of their pathway to the sexual abuse and molestation of children. The interviews were recorded and transcribed to allow detailed analysis of the accounts provided by participants (Braun & Clarke, 2006).

## Role of the Researchers

The experience and competency of the researchers are central to the collection of qualitative data (Robson, 2011). When dealing with first-hand experiences in an informal, "real world" setting (Denzin & Lincoln, 2000), the researcher has access to more intricate and dense conceptualizations of participants' lives than would be obtainable using quantitative approaches. Tewksbury (2009) describes the objective as exploring the meanings, individuality, and unique characteristics of issues and people, as well as understanding these motivations in particular settings and cultures. This examination of each participant's milieu allows for the identification of related and contradictory themes and concepts; it also facilitates

reflection on features that are absent and ambiguous as well as unequivocal and specific (Rubin & Rubin, 2011).

## Thematic Analysis

Thematic analysis was used to analyze participants' accounts; this method facilitated exploration of participants' experience of their world (McLeod, 2001). Essentially there are two approaches used in thematic analysis to identify emerging themes from data. The first, "inductive/bottom-up analysis" (Frith & Gleeson, 2004), involves coding without the imposition of predetermined assumptions or a preexisting coding framework (Braun & Clarke, 2006). The second, "theoretical/top-down examination" (Boyatzis, 1998; Hayes, 2013), allows the use of theoretical frameworks to guide the interpretation and analysis of data (Braun & Clarke, 2006).

In an earlier study (Sullivan, 2009), the author of this chapter explored the accounts of 16 perpetrators of sexual crimes against children and used the inductive process to identify key themes. For the current study, these established themes were used to facilitate a top-down analysis of the current study group. As mentioned, the semistructured interview then was used to explore the identified key themes.

## Participants

Participants were 65 adult male perpetrators of sexual crimes against children who ranged in age from 20 to 79 years (Mean = 48.41, SD = 12.50). This sample size is appropriate for a qualitative study, since such studies typically involve smaller numbers of participants than quantitative research due to the density of the data generated. Adler and Adler (2012) suggest that groups of 12–60 subjects are ideal.

Participants were randomly selected from a group of 105 potential candidates interviewed by two professionals skilled in the areas of assessment, intervention, training and research related to the sexual exploitation of children. Participants had been criminally charged in the United Kingdom/Ireland (*n* = 55) or the USA (*n* = 10). Atran, Medin, and Ross (2005) indicate that a "cultural consensus" can be achieved with ten participants. A precedent for including offenders from different countries has been set by previous meta-analyses of sex offenders; these studies frequently combine participants from countries such as the USA, Canada, Australia, New Zealand, the UK, and Ireland (Fazel, Singh, Doll, & Grann, 2012; Hanson et al., 2002; Helmus, Thornton, Hanson, & Babchishin, 2012). The rationale in selecting a diverse study group was to ensure a range of perspectives across key experiences relating to motivation and mitigate the possibility of premature saturation. The open-ended nature of this study has allowed saturation to be achieved gradually and without the limitations often found in funded or time-limited studies (see Green & Thorogood, 2009).

The majority of the cohort were convicted of contact offenses; a small minority (*n* = 5) were convicted of noncontact offenses but subsequently admitted to committing contact offenses. A few (*n* = 3) were not convicted of any crime yet admitted they committed undetected contact offenses. Study participants described themselves as White (*n* = 61), Black (*n* = 1), Asian (*n* = 1), or Other (*n* = 2). The majority of subjects were identified through police public protection units (*n* = 22), probation (*n* = 10), social work departments (*n* = 10), and prisons (*n* = 17), with the remaining identified through various clinical sources (*n* = 6). Each participant was interviewed for a minimum of 3 h (Mean = 5.45). The demographic details of the group can be seen in Table 1.

Each member of the cohort provided informed consent to participate in the study after the parameters of the research were explained to them (The British Psychological Society, 2010). To facilitate this process, each participant was given an information sheet that detailed the goals of the project and outlined ethical considerations. Interviewers explained to each subject that his

**Table 1** Demographics of study group

| Variable | n | Percentage |
|---|---|---|
| *Age* | | |
| 20–29 | 6 | 9 |
| 30–39 | 5 | 8 |
| 40–49 | 25 | 39 |
| 50–59 | 17 | 26 |
| 60–69 | 8 | 12 |
| 70–79 | 4 | 6 |
| *Education* | | |
| High school | 37 | 57 |
| College | 23 | 35 |
| Post-graduate | 5 | 8 |
| *Marital status* | | |
| Single | 35 | 54 |
| Divorced | 15 | 23 |
| Married | 7 | 11 |
| Partnership | 4 | 6 |
| Separated | 3 | 4.5 |
| Widowed | 1 | 1.5 |
| *Parental status* | | |
| Not a parent | 42 | 74 |
| Parent | 23 | 26 |
| *Gender of victims* | | |
| Male | 25 | 38 |
| Female | 26 | 40 |
| Both | 14 | 22 |
| *Conviction type* | | |
| Contact | 31 | 48 |
| Noncontact | 5 | 8 |
| Both | 26 | 40 |
| None | 3 | 4 |

identity would be protected and his name would be changed for purposes of the study. Participants were asked to avoid using references during their interview that could identify them or their victims.

## Interviews

All interviews were video recorded onto a memory card using a digital camcorder. At the end of each interview the file was directly transferred to a PGP-encrypted external hard drive and the memory card was erased using PGP wiping software. A back-up of each file was retained on a second, fully encrypted, removable hard drive. The records for this study were anonymized and retained in password-protected Word Excel, SPSS, and NVivo files on an encrypted laptop. No paper files were retained containing any personal details of participants.

## Analysis

Interviews were transcribed verbatim and all grammar, pauses, and unfinished sentences were included (Steinar, 1996). The QSR NVIVO (NVIVO) software package was used to store, manage and assist in the analysis of the transcripts. The NVIVO software allows the researcher to code passages in one document while facilitating quick reference to similarly coded passages from other transcripts. As themes (referred to as "nodes") emerge from the data, they are stored in a manner that allows the creation, browsing, and exploration of new themes and subthemes during analysis of the transcripts.

The analytical approach suggested by Silverman (2000) was employed and the transcripts were read and reread to acquaint the researcher with the data. During this stage new nodes were identified, requiring a review of the previously coded data, in an attempt to ensure the reliability of the analysis and contribute to comprehensive data treatment (Silverman, 2000). Further modifications of themes were carried out, and dominant themes and subthemes were identified.

The analysis of research can benefit from exploring these themes at different levels, namely the "semantic" or "explicit" level, and the "latent" or "interpretive" level (Boyatzis, 1998). With a semantic approach the researcher does not go beyond the explicit or surface meanings of the data. A thematic analysis at the latent level delves into the semantic content of the data and begins to identify and explore the underlying ideas, theories, and ideologies underpinning an individual's surface meaning. Such an approach can maximize detail, as both latent and semantic themes can be looked for simultaneously and, in turn, add to the meanings derived from the research interviews (Braun & Clarke, 2006). This approach was utilized in the current study as it lends itself to balancing the legitimacy of the participants' perspectives with the distortions and the inaccu-

rate or underdeveloped sense of self commonly observed among those who sexually abuse children.

## Validity

Confidence in the validity of qualitative research can be improved by ensuring sound procedures are utilized (Porter, 2007) and by clearly identifying the method and measures used (Yardley, 2008). To improve the quality of this type of research, Pawson (2006) recommends including transparency, accuracy, utility, propriety, accessibility, and specificity. Validity is attained from both the analysis procedures of the researcher and the utilization of an external reviewer (Clark & Creswell, 2011).

Themes found in phrases or sentences can carry meaning with respect to what that data is about (Saldaña, 2015) and are not restricted by size or shape (Ryan & Bernard, 2003). The aim was to disprove the analytical conclusions in the manner described by Silverman's (2000) "refutability principle." A matrix was used to assist with the illustration of the themes relating to each participant, and to assist in following the complexity and volume of detail emerging from the accounts. Tabulations were used to display data and analysis, as they can enhance validity (Miles & Huberman, 1984).

## Inter-Rater Reliability

Good qualitative research must ensure critical analysis (Silverman, 2000). The approach to interrater reliability suggested by Armstrong, Gosling, Weinman, and Marteau (1997) was adopted and data was independently coded and compared for agreement. To verify the reliability and validity of the codes and themes, an independent researcher with expert knowledge in sex offender research performed an inter-rater reliability function by independently coding 10 randomly selected transcripts from the sample of 65 subjects. Inter-rater comparison of findings demonstrated a 90% consistency with the codes and findings of the authors. Subsequent discussions led to the merging of themes and the creation of additional nodes.

## Results

The accounts of the motivational trajectories as described by this current study group were detailed in an earlier publication (Sullivan & Sheehan, 2016). This chapter summarizes the findings of that paper and elaborate on other aspects of the progression to offending described by the participants.

## Motivation to Engage Sexually with Children

Research indicates typical developmental risk factors for sexual arousal to children include childhood emotional, physical and sexual abuse, behavioral problems, and family dysfunction (Grady, Levenson, & Bolder, 2016; Grattagliano et al., 2015). In addition, early sexualization and social isolation in childhood have been found in those who have sexually harmed children (Sheehan & Sullivan, 2010; Sullivan, 2009).

Positive attachment can be inhibited by aversive childhood experiences which interfere with neurodevelopment. A lack of such attachment increasingly is considered formative in the development of maladaptive interpersonal skills (Anda et al., 2006; Creeden, 2009; Perry, 2001). Perhaps not surprisingly, poor quality attachment has been noted in the histories of those who molest and sexually abuse children (Levenson & Socia, 2015; Wurtele, Simons, & Moreno, 2013).

Research also has considered possible genetic influences to sexual offending against children (Harden, 2014; Långström, Babchishin, Fazel, Lichtenstein, & Frisell, 2015). Genetics influence the individual's responses to their environment (Freese, 2008) and how the amalgamation of genes, gender, and the environment impact upon negative early life experiences (Copeland & Gorey, 2012).

In a recently published paper using this study group, Sullivan and Sheehan (2016) concluded that the process which leads to an individual devel-

oping the motivation to engage sexually with children involves a complex synthesis of formative early life events/experiences and the mechanisms by which these experiences are assimilated and integrated. The assimilation and integration process appears to generate the life theories that support abusive behavior toward children. Specifically, as illustrated in Fig. 1, participants described early life experiences and significant childhood events which they felt influenced their sexual interests and arousal; perceptions and beliefs; and future behavior. These formative experiences tended to create problems with attachment, emotional regulation, intimacy, cognitive and sexual preferences and arousal, generating abuse supportive theories about life, and shaping their motivation and arousal to engage sexually with children.

Typical formative experiences described were exposure to violence within the home ($n = 17$) or outside the home ($n = 15$), social isolation ($n = 24$), emotional neglect ($n = 29$), and physical neglect ($n = 9$) as well as early sexual experiences ($n = 40$). How these experiences were assimilated provided insight into the direction of the participants' developing motivation. Three themes emerged from the exploration of the assimilation process. *Maladaptive perceptions* typically described included low self-esteem ($n = 37$), a sense of inferiority ($n = 26$), and a perception of self as weak ($n = 23$).

Sullivan and Sheehan (2016) found that many participants ($n = 41$) felt their sexual interests may have stemmed from similar formative life experiences which *activated sexual arousal*. They suggested these early experiences helped "shape" the particular nature and extent of their sexual arousal. In some cases ($n = 15$) participants disclosed formative experiences where sex and pain were linked and reported subsequent arousal to pain. This is consistent with other research (e.g., Beech & Ward, 2004) that suggests negative mood states and emotions in childhood can be correlated with the enhancement of deviant sexual arousal.

Sullivan and Sheehan (2016) also found a range of *developmental difficulties* in the accounts of participants. These included difficulties developing and maintaining relationships ($n = 34$); feeling socially awkward (indicated by almost half [$n = 29$]
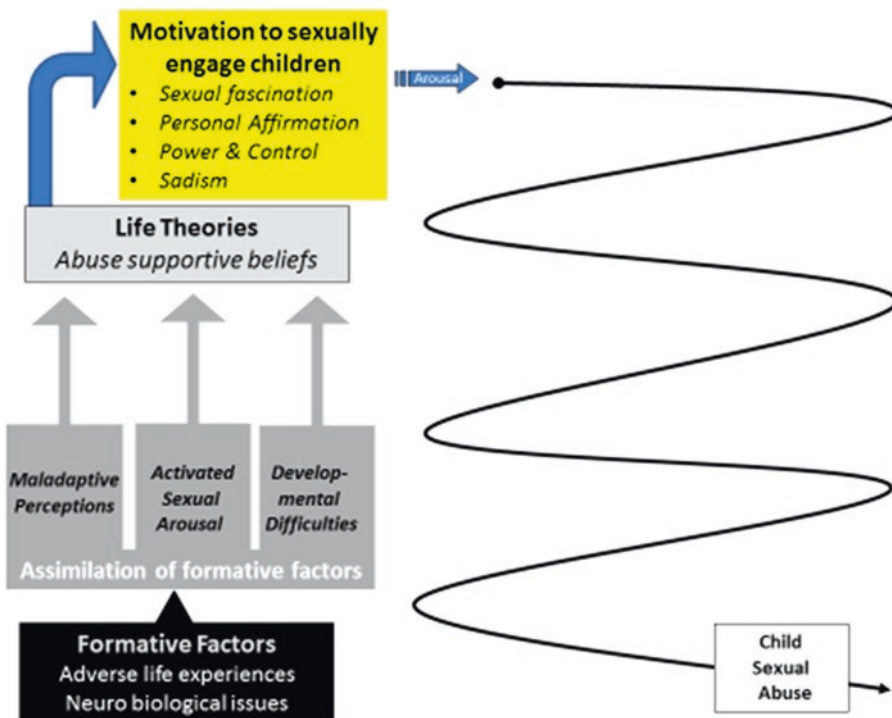


**Fig. 1** Extract from the spiral of sexual abuse (Sullivan & Sheehan, 2016)

of participants), and avoiding contact with peers and adults ($n = 27$).

The assimilation of early life experiences appeared to influence the developing belief systems of participants. Five common life theories were identified:

- *Distorted* ($n = 42$), a twisted conceptualization of how the world works;
- *Entitled* ($n = 38$), a sense of having a right to behave as one wishes;
- *Contaminated* ($n = 21$), a belief that one's life is predetermined and shaped by previous experiences;
- *Selfish* ($n = 42$), a narcissistic belief that others do not matter;
- *Malicious* ($n = 12$), a delight in the misfortune/distress of others.

Analysis of participants' accounts suggested that four primary motivations emerged alongside these life theories. These included *sexual fascination in children* ($n = 40$), the urge to *sexualize relationships with children to affirm their magnetism/allure* ($n = 22$), a desire to *exert control over others who were perceived as weaker* ($n = 28$), and an impulse to *experience the distress of others* ($n = 15$). In many of the accounts, participants described having more than one type of motivation.

There remain many unanswered questions about causal factors that influence the development of a motivation to engage sexually with children. While it is clear there is no single feature or combination of factors that cause an individual to abuse or molest a child, common aversive childhood experiences appeared in many participants' accounts. Further research will be required to examine the complex interaction of the processes described above.

## Blocks to Arousal, Distortions and Abuse-Supportive Thinking

According to all participants, the evolution of their desire to act out in a sexual manner with children was followed by "blocks" to that arousal. They indicated these blocks inhibited their progress toward offending. Their observations are

interesting in light of the concept of desistance which has relatively recently attracted interest as a somewhat overlooked aspect of intervention with sex offenders (Lussier, 2016).

## Blocks to Arousal

Self-disclosed inhibitors to predisposing factors to engage sexually with children typically fell into three sub-categories:

- Shame ($n = 21$)
- Guilt ($n = 36$)
- Fear ($n = 38$)

The "guilt" category included the belief that sexual contact with a child is wrong, the belief that children would be damaged by the experience, and/or recognizing that society disapproves of the behavior. "Shame" often was linked to an anticipated loss of respect/status with others or the contravention of moral or religious beliefs. The accounts included in the "fear" category included concerns they might be caught and the potential negative consequences that would follow. Also included in this category was anxiety about a potential loss of status or the negative impact their actions might have on individuals whom they cared for.

"Ethan" is typical of many participants who spoke of superficial commitments to change once their arousal subsided following ejaculation to masturbatory fantasy about anticipated victims. Ethan had one conviction for molesting his daughters and niece. He said:

> For me personally, especially after ejaculation, at that point the guilt would set in, y'know, for myself I would say, y'know, I am not going to do it again. This is not going to happen again. I'll leave. I'm going to do whatever … Work more. I'm gonna have sex with my wife more. I gonna do something to that effect, until the next time when I needed to have sex, y'know."

It was common for participants to provide examples of shame, guilt and fear in their accounts. "Brian," who was convicted of possessing indecent images of children, admitted he covertly recorded children in busy locations. He

targeted girls wearing skirts and secretly filmed their underwear as they passed near him. He stated:

> But once I'd obviously done that and I, if you like, sobered up, then my conscious [sic] would say to me, 'Oh don't, what you're doing here is not right, you know, there is repercussions from this on these people and possibly on me' if I obviously got found out.

For others, like "Ben," who was once convicted of indecent exposure and once for sexual molestation of a child, the focus was on fears of apprehension and the possible consequences:

> I got out of prison, was on parole, … I was trying to consciously stay away from, not for anybody else, but for staying out of prison … I still got, I'm still very much wanting to do this, and I was trying to get more hooked into nudist colonies, so I could at least have the visual stimulus, and I'm like, these guys, I really want to engage in the stuff, but I don't want to go to jail anymore, you know, that's not a good place for me.

"Simon," who molested his daughter, spoke of his shame with regard to a particular sexual activity which caused her to cry. He said:

I got [her] to do oral sex and suck me but I was always very careful for a very long time never to orgasm near so that she could see I 'd put her back into her own bed before I'd finish myself off. And then I'd … masturbated into her mouth, it was the only time that she cried [shakes head]. And even to this day I'm, it's one of the things I'm most ashamed of, really, because everything else I coated with the veneer of consent whereas this was totally without. I just got her to stand there with her eyes closed and I just masturbated into her mouth and, like I said, that is something that really makes me ashamed.

As will be detailed later in this chapter, Simon went on to both anally and vaginally rape his stepdaughter. He said the sex offender treatment program he undertook in prison helped him to recognize the "veneer of consent" as his distorted thinking and manipulation of his victim to engage in the sexual abuse.

The shame, guilt, and fear described by participants act as temporary barriers to the progression from arousal, to the possibility of sexual activity involving children, to the actual abuse of children. This process as illustrated in Fig. 2:
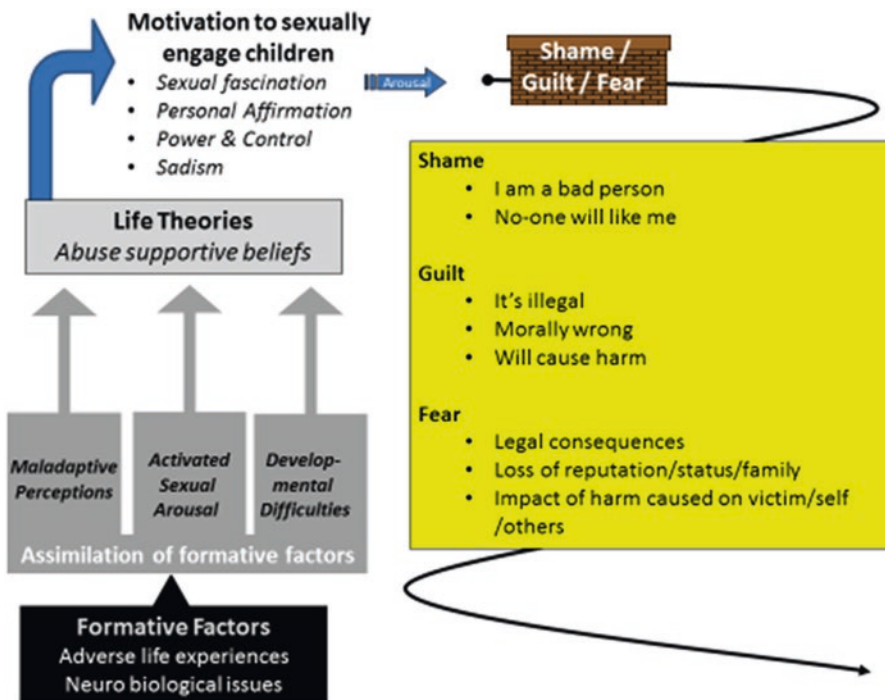


**Fig. 2** Blocks to offending

## Overcoming Blocks to Offending

Research indicates adult sex offenders can view their own offending and the environment around them in a biased manner by developing cognitive distortions to justify their thoughts and behaviors (Beech, Bartels & Dixon, 2013; Hempel et al., 2015; Sigre-Leirós, Carvalho, & Nobre, 2015). This process is also described in the literature as thinking errors, abuse-supportive beliefs and attitudes, justifications, schema, denial, minimization, excuses, and implicit theories (Mann, Hanson, & Thornton, 2010; Ó Ciardha & Ward, 2013; Ward & Keenan, 1999).

A function of cognitive distortions in sex offenders is to preserve a positive self-image and reduce the guilt or shame that can arise from the realization the child may be damaged by the victimization (Davids, Londt, & Wilson, 2015; Hudson, 2013; Katsuta & Hazama, 2016). Research suggests cognitive distortions evolve from childhood experiences and formative experiences (Carvalho & Nobre, 2014; Sigre-Leirós, Carvalho & Nobre, 2015; Sullivan, 2009), and the presence

of cognitive distortions is considered predicative of recidivism (Hanson & Morton-Bourgon, 2005; Helmus, Hanson, Babchishin, & Mann, 2013).

The means by which the study group described overcoming these inhibitors were categorized as *cognitive distortions* and *abuse-supportive thinking*. The findings of this study are in line with previous research (e.g., Ward, McCormack, & Hudson, 1997) that conclude distortions and abuse-supportive thinking pervade the entire offense process. Analysis of responses suggest participants tended to primarily adopt distortions and abuse-supportive thinking that were in line with their *life theories* that arose and evolved from distal or developmental experiences. This finding correlates with the perspectives of Maruna and Mann (2006) on schema, and the earlier work of Ward and Keenan (1999) on implicit theories. The five themes that emerged from the analysis of participants in the current study are listed below and are illustrated in Fig. 3.

- *Contorted*—Children like sex/It won't harm them ($n = 61$)
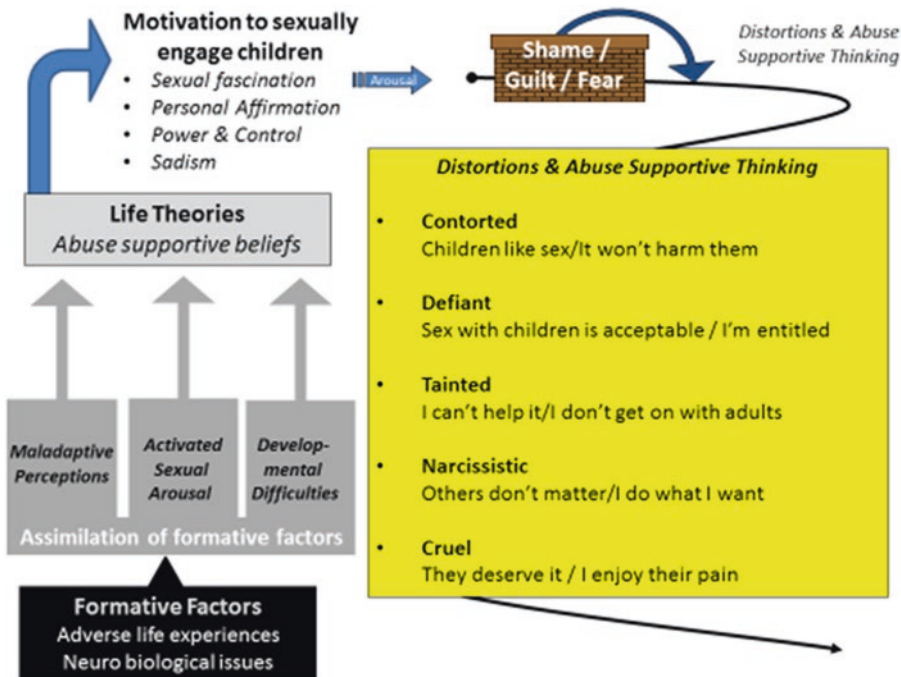


**Fig. 3** Distortions and abuse supportive thinking

- *Defiant*—Sex with children is acceptable/I'm entitled (*n* = 45)
- *Tainted*—I can't help it/I don't get along with adults (*n* = 23)
- *Narcissistic*—Others don't matter/I do what I want (*n* = 38)
- *Cruel*—They deserve it/I enjoy their pain (*n* = 13)

In many cases, participants described using more than one of the categories of distorted and abuse-supportive thinking.

## Contorted Tthinking

"Finn," who was convicted of molesting a child he taught, also admitted he molested his sister as a child, as well as approximately 20 boys when he worked overseas. His contorted thinking took the common form of persuading himself the children benefited from the sexual contact:

> I made it acceptable by telling myself that I am able to give sexual pleasure to boys and adolescents and they enjoy it. I perceive in some of my victims an emotional need which I believe I can fulfil by abusing them.

## Narcissistic Thinking

An example of narcissistic abuse-supportive thinking was provided by "John," who sexually molested his sons and daughters, as well as members of his extended family:

> I didn't care. There was no justification in it. You just didn't care what they wanted. It's what you wanted.

When giving their accounts, participants typically displayed several types of justification simultaneously. Another example of narcissistic abusive-supportive thinking—which also appears to have elements of tainted and contorted thinking—was provided by "Steve," a man convicted of molesting his daughter and possessing a substantial amount of violent child pornography, including "snuff" (images depicting the death of a child in the course of sexual torture). He said:

> Well, I, everybody's a bundle of contradictions, but that's the human condition [laughing]. It … because, I guess, because I didn't know the people,

> I didn't think of it in those terms, of course the snuff groups didn't have much of the … I mean there weren't too many real children in there, but if there were, that was a charge too 'cos I mean, there I would fall back on the other justification, you know, well it's like it happened to somebody, you might as well make the best of it, you know. If, it's horrible that it happened, but you know you might as well get some pleasure out of it—I suppose that's the thinking.

## Cruel Thinking

"Rob" raped and murdered his siblings. In what appeared to be a post-hoc justification for his behavior, he said part of his motivation for the abuse was that he wanted to hurt his mother. He explained:

> Secondary victim seems to be worse than the direct ones. You hurt the victim, the victim hurts the people around them, the people around them spread distress and depression, it's called psychological abuse, it's all she done to me, why not do it back.

Rob's account suggests he took cruel pleasure in the distress his abuse caused to others, whether that was his intention at the time, or not.

## Developing and Reinforcing the Arousal

Research indicates that engaging in masturbatory fantasy involving children is common among sex offender populations (Marshall, Laws, & Barbaree, 1990). The function of the behavior appears to have elements of planning, rehearsal, and reinforcement of deviant arousal (Marshall, Cripps, Anderson, & Cortoni, 1999; Ward & Hudson, 1998) as well as the strengthening/normalization of distortions and abuse-supportive thinking (Sullivan, 2009).

Most participants in our study spoke of nurturing and developing their arousal to sexual activity involving children through the creation of sexual fantasy that reflected the function of their motivation. For example, the fantasies of those for whom the function of the abusive behavior was predominantly sexual generally reflected this arousal and portrayed the children as sexual beings. "Marc" was twice convicted of molesting boys. While in a prison-based sex offender treatment program he admitted he molested up to 200

girls and boys. He was primarily sexually motivated, and he said of his fantasy:

> I played it out that they liked what I did with them, and they wanted to do it more and because of that my interpretation of that was that they loved me and so my fantasies was so that, that we would be in a relationship, and a loving relationship, and that we would have sex, you know, if it was with the girls it would, we would have sexual intercourse with the boys and mutual masturbation and oral sex.

In contrast, those who were motivated by an arousal to power and control generally spoke of their fantasy containing themes or images of the child being controlled, unhappy, uncooperative, distressed or in discomfort as a result of the sexual behavior. "Colin," who sexually molested his stepdaughters, was predominantly power and control motivated. He said of his fantasy:

> There was more fantasy afterwards, I could do that again later, not necessarily sexual stuff, but well there is sexual stuff in that I can do that again … But there was much more for me about being able to control it, when it happened where it happened so although there was sexual gratification there I was actually more aroused to the control part of it. I mean the sexual gratification lasts five minutes then it is over with. But the control was great and being able to do that again if I want to, I can do it where I want to, I am now in control of this environment and no one is going to catch me or stop me, that was much more thrilling.

It would appear that Colin's visualization was focused more on manipulating and overwhelming others than on the specific sexual activity he would perform.

## Fantasy

Participants generally indicated that fantasy or the visualization of their desire to engage with children sexually was present ($n = 60$), and in fact many attributed significant weight to the process as a means of sustaining and developing their arousal to sexual activity with children ($n = 44$). The two primary functions of fantasy identified were (a) the enhancing of sexual arousal, and (b)

the reinforcement of distortions and abuse-supportive cognitions. While most offenders said they used distorted thoughts and abuse-supportive cognitions to reduce levels of guilt and fear before their abusive acts, they also highlighted that the reinforcement of distortions through masturbatory fantasy had a central role. In addition, the consensus was that arousal to thoughts of engaging in sexual acts with children was significantly increased through masturbatory fantasy. "Fred" admitted abducting and sexually molesting stranger prepubescent boys and girls but was convicted of minor nuisance-type offenses against girls. He stated that following incidents when he looked at or brushed against children he would take the memories home and use them in masturbatory fantasy to reinforce his arousal:

> I just get this feeling that I want to touch or kiss girls on the bum—not have proper sex with them, just kissing and feeling. I used to get a thrill out of that and then you go home and think about what you just done and masturbate, you know … I always seemed to keep it until I got home and then I was laid in bed and I could imagine what I had just done and then add things to the scenario.

Fred also makes reference to adding additional events to the memory in his fantasy. Others described this process as a mechanism for planning future offending. One such example is "Simon," who photographed himself molesting his stepdaughter, and in fantasy imagined the next step in the process:

> You know, I have fantasized about [her], things we could do in the future, but that was after I'd started touching [her].

It was established that fantasy also was used for planning the manipulation/grooming of others ($n = 44$) and resulted in an escalation of offending. Some participants indicated masturbatory fantasy was used for mood and stress control as well as a reward ($n = 21$).

The majority of participants spoke of the process of masturbating to their fantasy as having a "dual effect" of enhancing their arousal and diminishing their blocks to offending. This process is illustrated in Fig. 4.
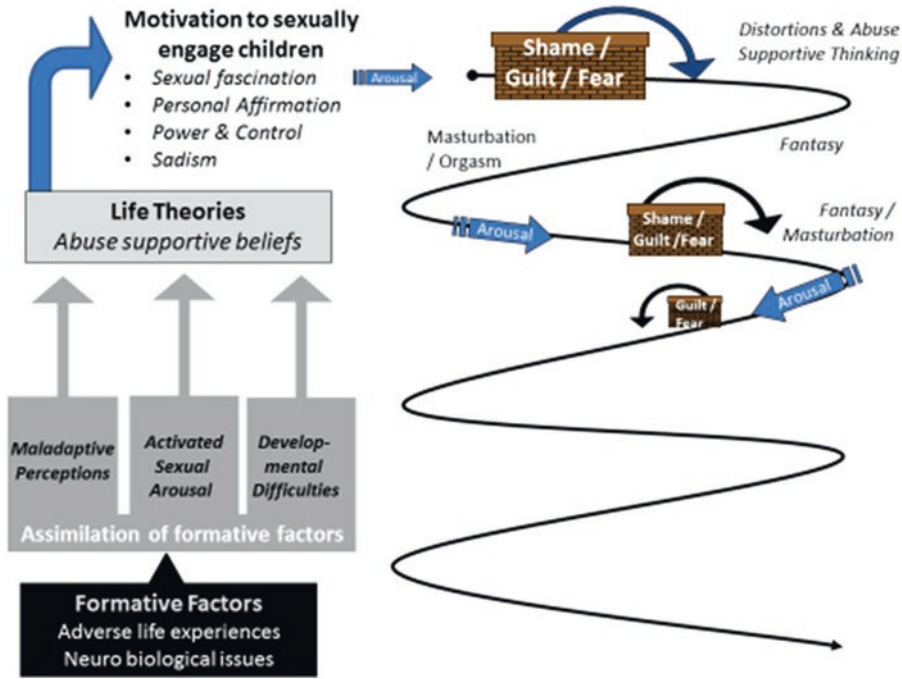
**Fig. 4** Impact of masturbatory fantasy

## Victim Selection and Grooming

The process of selecting a victim and grooming both them and others who might protect them were common themes in the accounts of all participants.

### Victim Selection

Analysis of the accounts of participants suggests the three primary factors influencing the selection of a potential victim were:

- *Perceived vulnerability* (*n* = 49)
- *Availability* (*n* = 43)
- *Attractiveness* (*n* = 19)

Perceived vulnerability was the most frequently cited reason for the choice of a particular victim. At age 24, "Sean" was one of the youngest participants. He was convicted of sexually assaulting a 12-year-old girl who was living in foster care. In addition to molesting her, he admitted selling her to other men for sex. He stated:

She was in a vulnerable stage. That's another thing I was thinking in jail, as well. She was into her vulnerability, that's a lot, that's why I think, you know, I got .. 'cause she had trouble at home, that's why she was in the home, children's home, she got like, her burnt, iron marks from her parents and stuff like that.

Others, like "Felix," who was convicted of online grooming and possession of child pornography, sought indicators of vulnerability in children who were engaged in online activities. Felix said:

She basically slotted into the, you know, 'needed a friend' type …. The, sort of, she was quite vulnerable. I don't know anything about her in real life, but I, I got the impression that she didn't have loads of friends. So I suppose in a callous way she was an easy target.

The attractiveness of the child was the least-cited factor in the accounts of participants and appeared to be more of an issue with those for whom the function of the behavior was predominantly sexual. "Terry," reached out to children whom he found attractive:

> There were times when I would go online and I would look to see who was around and see who I found attractive, mainly physically I suppose but not exclusively but mainly and then probably, well find out if they were receptive to being spoken to by me. I mean two or three words might do that as I described before, sending messages, or chatting or in the main room or possibly in initiating chats.

An inherent aspect of the attractiveness of children whom Terry encountered online was their willingness to engage in chat with him, a decision that may also contain elements of perceived vulnerability.

Alternatively, for those where the primary function appeared to be personal affirmation and/or power and control, participants were more focused on vulnerability and availability of potential victims.

### Grooming

Previous research has suggested there are three primary functions of the preparation or grooming process which are relevant to both victims and others who might have protected them (Sullivan, 2009):

- *Manipulating perceptions*
- *Creating opportunity*
- *Preventing suspicion, discovery, or disclosure of the abuse*

This process is illustrated in Fig. 5 and explored in detail in the sections below.

## Manipulating Perceptions

The manipulation or grooming techniques used by the participants varied considerably, depending upon their perceptions of their strengths and qualities and how these would be perceived by others. The contexts within which they were abusing also was found to be important, and to a large part was shaped by whether they knew the victim, or not. Participants spoke of using different approaches to manipulate victims compared with the techniques they used when dealing with others who might have protected the child.
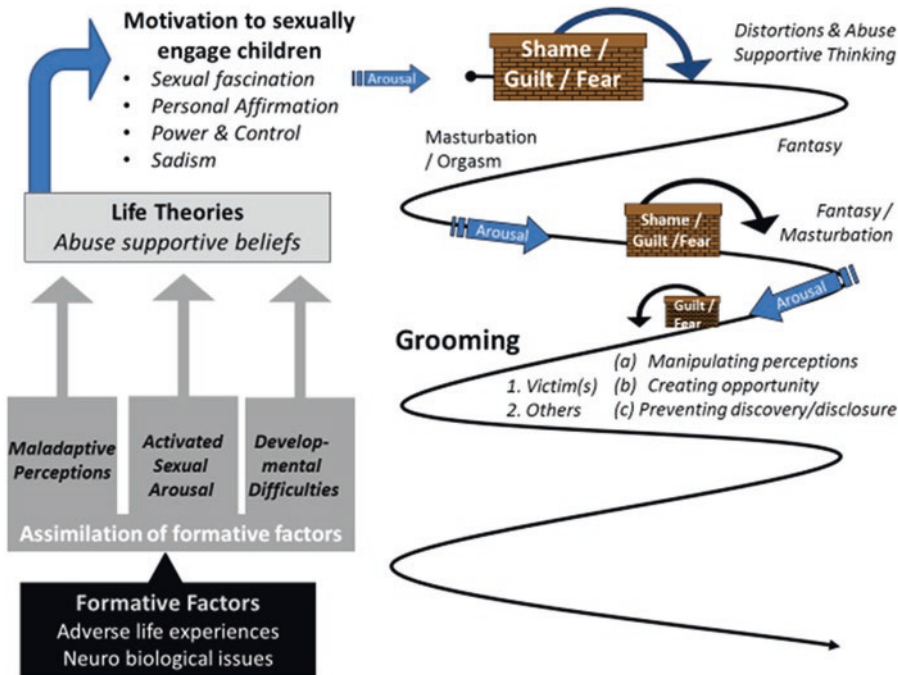


**Fig. 5** Victim selection and grooming

- Manipulating the perception of others ($n = 58$)
- Manipulating the perceptions of victims ($n = 50$)

## Manipulating the Perception of Others

Most participants modified and adapted their grooming behavior depending upon the environment and the type of offending they were engaged in. It was common for participants to engage in several different types of offending, confirming that they tended not to exclusively specialize in one type of abuse. In addition, the degree to which the behavior was instinctive or premeditated appeared to differ between participants. While both were in existence, it seemed likely from the accounts given that the more sophisticated and complex manipulations were deliberate and calculated. For example, "Francis" described how he and his co-offender ("Tim") planned to manipulate the perceptions of local police if they were arrested in the company of young boys in a South American country. He explained:

> [We] was using the services of a pimp, a drug addict that he had met some time earlier. We set up the, if we ran into trouble, the pimp was with us in the car, he was to provide the boys. If we were stopped by the police the first thing is we were two Americans or an American and a British homosexual this chap said he could find us young men, instead of young men brought us these two children and we were just about to drive them back and we were as surprised as anybody else.

"Terry" was convicted of grooming and molesting 19 children he met in online chat forums for teenage boys exploring their sexuality. He admitted he actually molested more than 100 children in this way. His technique was to position himself within the forum as a safe adult who was happy to help others:

> So you sort of create a presence for yourself and almost an image or reputation or persona of yourself which may be accurate or may not be. [I used] a fairly accurate one of who I am, which is a fairly friendly, chatty well not particularly chatty but friendly, interested in people, fairly supportive of people who have got problems say not particularly people with problems, but a friendly sort of person I suppose.

Because he was so accomplished at manipulating others' perceptions of him, adults would refer their troubled children to Terry for counseling about their sexuality.

## Manipulating the Perception of Victims

The manipulation of victims' perceptions was primarily focused on normalizing the abuse or molestation. "Simon," who spoke previously about his shame at ejaculating in his stepdaughter's mouth, used child pornography to normalize her perception of his behavior and convey the message that other children were happily engaging in sexual activity:

> I showed [her] some images that appeared to show penetration and I got [her] wanting to, for me to penetrate her vaginally, again I'd worked it around that way.

"Stuart" used adult-themed comedy recordings to introduce sexual topics with a boy he befriended:

> I played the tape, yeah, in the car and just, we'd have a laugh and a joke … but I suppose we're all men as well so, you know, it's, there's one that says, one of his lines is, it's one of his little songs, it's, "Do you fuck on first dates, does your dad own a brewery, can I feel your tits or will you show them to me?" and, you know, for a 13–14 year old boy, 12–13, it's probably—well it is inappropriate to let him listen to those, but unfortunately then that would bring on, what's the word? a conversation that would break the ice, basically, to start a conversation about, you know, would you fuck on first dates, basically, or you know, then perhaps I think it may have gone down the lines to, y'know, about his girlfriends and things like that.

Although he was convicted of sexual offenses against one boy, Stuart admitted to staff in the sex offender treatment program he attended that he molested more than 20 boys.

## Creating Opportunities

The methodologies for creating opportunities to sexually offend were numerous and varied widely across the study group. Many were dictated by the context within which the child was targeted. The existence of so many variations in this section made identifying clear themes impossible, or at least questionable in terms of usefulness. As with the previous theme, creating opportunities

appeared to require different techniques with the victims and others.

- Creating opportunities by using/manipulating others (*n* = 58)
- Creating opportunities with victims (*n* = 60)

## Creating Opportunities by Using/ Manipulating Others

"Mike," who sexually abused his niece in close proximity to her parents, spoke of deriving a heightened sense of arousal to the deception:

> She was 10 at that time. I got her into tube with me that going down the river I made it look like there was nothing going on and as far as I know nobody suspected anything 'cause nobody ever said anything … I also was inside glowing that I was able to do it right here in front of all these people and nobody knows what's going on and was unjustifiably proud of myself and stuff.

"Martin" described how he offered boys work as laborers in his landscape gardening business to justify spending time with them and to explain why he had given them money:

> And I needed to get him to my house and the following week I was coming back to pick him up and he was going to work, that's what he was telling his mom, but he wasn't. He was going to get some pot plants and stuff is the story that I really just made up for him, it had nothing to do with, he even came out with his camouflage clothes on when I went and picked him up and I took him to my house instead.

## Creating Opportunities with Victims

Aspects of the participants' behavior had overlapping purposes. "Charlie," who molested his stepdaughters, created opportunities to abuse and molest them by taking them to his workplace. As he was the only security guard, his overnight shifts provided opportunities for extended access to his victims.

> You gotta get her on her own before you do any activity to see if she is comfortable on her own. Well that worked because I used to take 'em to work with me, so it was only them and me, or her and me, at that place, so I had control there.

To his partner he presented the overnight stay as a way of supporting her by giving her a break,

while the child was told it was a "special treat." In reality, he was creating opportunities to be alone with the child for an extended period.

## Preventing Suspicion, Discovery or Disclosure of the Abuse

There were four primary themes identified from participants' descriptions of how they prevented suspicion, discovery, or disclosure of the abuse. These are listed below:

- *Deception*—tricking those involved into believing there is no sexual agenda
- *Persuasion*—urging the disregarding of or collaboration with abuse
- *Coercion*—compelling the cooperation of individuals
- *Force*—physically constraining persons to ensure cooperation

Coercion (*n* = 1) and force (*n* = 1) and persuasion (*n* = 1) were not commonly spoken about in respect of potentially protective others; however, participants highlighted using these approaches with children they sexually abused and molested (coercion: *n* = 14; force: *n* = 9).

## Deception

Deception was more commonly spoken about by participants in relation to manipulation of potentially protective others (*n* = 27) than victims (*n* = 16). "Lenny" was convicted once for three counts of making child pornography with boys he befriended in the local community. He admitted raping, molesting and sexually abusing 80 boys and 4 girls throughout his life. He described how he deceived the social worker who evaluated him for suitability to adopt a child:

> I was about 25, 24 when I decided I was going to adopt a kid, right? I had dated women before, I had dated a lot of women and I never had any [sexual] interest in them obviously but they always had sons, right so you know I always had someone to play with. So, about a year, I worked on it for about a year and I spent thousands of dollars getting certified and getting home study done and I did end up adopting [a boy].

I was interviewed by this woman for 4–5 hours in a hotel. At one point we were smoking a cigarette and I said, "How do you know I am not a child molester?" She said "Oh I have been testing you throughout the day" And I am thinking "Oh, you stupid bitch. You don't even know."

And she said single father adoption would be great, and I am just thinking, "Oh, damn. Everybody wants to give me a kid!" That was unbelievable. I still can't believe it, man.

Other examples of deceptions provided by participants included elaborate deceptions to create the impression the perpetrator had spiritual/magic powers, or simply pretending to be a child online to encourage a child to behave sexually on a webcam.

## Persuasion

Nineteen participants described using persuasion techniques with victims. "Todd," a retired teacher, was convicted of molesting three prepubescent girls who lived in the local area. He later admitted he sexually molested his stepdaughter 34 years previously, and said he was aware of his sexual interest in children when he made the decision to train as a teacher. He added:

Well, when [she] first started posing for pictures, I told [her], I said 'do you know if you tell anybody about this, you'll not be allowed to come over any more'. I said, 'I don't think I would ever be allowed to see you again', and [she] said 'well, I'll never tell' and that was all I'd said.

Prior to starting the abuse and molestation, Todd spent several months grooming the girls' foster parents and the parents of the other children. He said he encouraged them to trust him with the goal of convincing them to allow the children to visit him at his home, where the abuse took place.

## Coercion

Martin, who spoke previously about offering boys work to create the opportunity to molest them, used implied threats to intimidate and frighten the youth into submission. He said:

I would tell them that "Do you know how dangerous it is for you to come, do you know anything about me, you don't know anything about me, you

know you jumped in a vehicle with me, and neither your mom nor dad or nobody knows where you're at and I've even said it on those videos, and nobody knows where you're at. And anything could happen. I mean, I'm not the serial killer who wants to kill you, or nothing like that, but what if I was? It happens to people every day, you get people, you know, they get lured off every day and killed and threw away and nobody ever knows what happened to them."

Other participants spoke of using more direct threats to harm children if they did not comply with the sexual activity. These participants also were the ones most likely to use physical force with the children.

## Force

"Dermot" was convicted of abducting, sexually molesting, and murdering several children and adult women. His tactics to prevent suspicion, disclosure or discovery included threats, physical force, and restraint before murdering them to prevent disclosure. He stated:

The murder victims were restrained, they had bits of clothing torn off and used to tie their hands up behind their backs.

Other examples coded as "force" included the abuse of infants and babies who were physically maneuvered to facilitate the abuse.

## Abuse

Most participants indicated they were aware of their desire and/or propensity to engage sexually with children before they were 18 years old ($n = 49$) and, while none were convicted of sexual crimes against children as juveniles, many ($n = 41$) admitted they engaged in problematic sexual behavior against younger children before they became adults. Some were convicted of more than one type of sexual offending, and most said they engaged in undetected abuse and molestation of children. The spread of admitted offending is outlined below in Table 2.

The nature of the abuse perpetrated by the participants strongly paralleled the arousal pattern which underpinned their motivation. Those who were primarily motivated by power and control appeared to regard the abusive act as a "means to

**Table 2** Admitted sexual abuse and molestation

| Type | Number |
|------|--------|
| Intra-familial | 21 |
| Possession of child pornography | 27 |
| Production of child pornography | 18 |
| Online grooming | 10 |
| Group based exploitation | 18 |
| Professional perpetrators | 22 |
| Sexually motivated abduction | 6 |
| Travelling sex offenders | 14 |
| Sexually motivated murder | 4 |

an end" rather than the goal. "Steve," the offender mentioned above who was convicted of molesting his daughter and possessing extreme child pornography, was primarily sadistically motivated. When asked about his collection of images, he replied:

> There were other people who had more images, but I was selective. What I collected was all extreme. What I had was you know all more extreme. My basic criteria was it had to involve hardcore action—children, I mean, maybe early teens—but you know, people who didn't happen to be not quite 18 didn't interest me. It was pretty much 12 and under.

The more sexually motivated offenders described their offending in a manner which reflected the nature of their arousal. "Todd," a single, retired teacher, created a "child friendly" environment in his home to facilitate the abuse of the children he molested and photographed. Earlier in this chapter he described how he reminded the children of what they would lose if they spoke out. He described his abuse of one 6-year-old girl in the following way:

> But, I said, 'Would you pull your dress up just a little bit so that your legs would show?' and she grinned and she pulled her dress all of the way up to her waist. And I said, 'Do you want me to take a picture of you with your panties showing?' and she said, 'As long as you won't show it to anybody else.' And so I said, 'Oh, ok.' And I took that picture. And then she looked at me and she, she kind of blushed. And I said, 'Can I get another picture?' and she says, 'Yes,' and she pulled her dress up showing her breasts and I took a picture like that. And she wanted to see each picture as I took it.

Todd's account suggests he uses contorted thinking to support his offending, and that his fantasy likely would reinforce the belief that children enjoy sex and are not damaged by this type of activity.

Analysis of the participants' accounts suggest there is a consistency between the phases described above. If further research were to confirm this uniformity, then even with limited information those involved in interviewing sexual abusers and molesters of children may be able to predict the most likely manner in which individuals will navigate their spiral of sexual abuse.

## Conclusions

This study has demonstrated that sex offenders are a complex, diverse and heterogeneous group. Exploring common themes which emerge from their accounts can lead to a better understanding of the etiology of offending and how to best evaluate risk factors most relevant for individual perpetrators. However, the findings suggest that despite the multifaceted variations, there appear to be common themes that relate to the phases offenders will typically progress through in the course of developing their sexual offense patterns. These phases are illustrated in the conceptual framework named the "*Spiral of Sexual Abuse,*" which is depicted in Fig. 6.

The *Spiral of Sexual Abuse* postulates that a child sex offender's progress to abuse begins with formative life experiences. These experiences are not responsible for the subsequent abuse but provide the foundation upon which the individual develops his or her perceptions, beliefs, sexual interests, and arousals, and influences how their behavioral traits are formed. A complex interaction exists between this process and the life theories which subsequently evolve. The life theories are a consequence of the formative life experiences but also are shaped by one's broader life experiences, and they appear to place the individual at a motivational threshold where abusing a child may be perceived as a means to meet their needs. These needs may be primarily a sexual interest in children, a desire for personal affirmation,
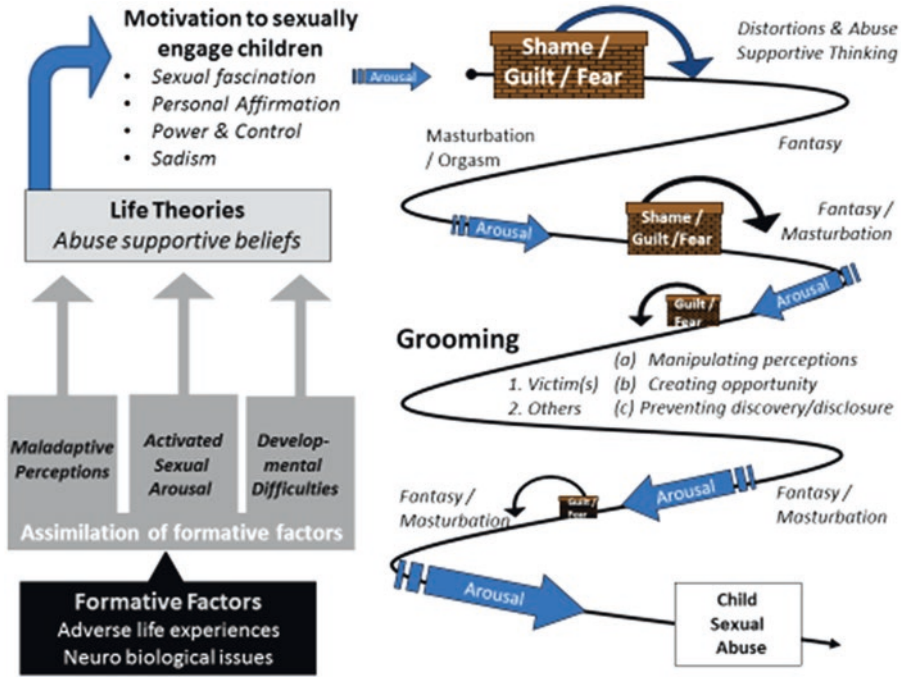
**Fig. 6** The spiral of sexual abuse

a quest for power and control over others, or a mixture of all these factors. Regardless of the composition of the needs structure, most potential offenders will have their arousal blocked by issues such as guilt and fear.

Using distorted thinking and/or abuse-supportive cognitions, the individual allows himself (or herself) to nurture, develop and reinforce their arousal through masturbatory fantasy. This process enhances arousal and diminishes the power of the guilt and/or fear. Once this process of behavioral conditioning has sufficiently enhanced arousal and reduced the blocks to arousal, their contemplation evolves to incorporate the possibility of acting out the fantasy.

At this point, or in some cases later in the process, a potential victim is selected and the content of fantasy and the focus of the arousal alter accordingly. The preparation phase or the grooming process is engaged to (a) ensure the intentions and manipulations of the offender are disguised, (b) are used to render the victim more vulnerable, and/or (c) diminish the ability of other to protect the targeted child or prevent the abuse. In some instances, the victim selection occurs following the grooming

of others. For example, a nursery or childcare worker might plan to engage in sexual contact with any available children once he or she gradually undermines extant child protection protocols.

It is impossible to adequately illustrate the numerous variations involved in complex human behaviors using a single model. The difficulties associated with such a task can result in overly simplistic or unhelpfully complex paradigms. The *Spiral of Sexual Abuse* is a conceptual framework that should be applied flexibly to encompass the wide variations that are identified and explained in the body of this chapter. While our study sought to explore the application of the Spiral concept to a broader sex offender population, additional research is needed before the concepts identified herein can be further refined.

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# The Commercial Sexual Exploitation of Children

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## Introduction

The commercial sexual exploitation of children (CSEC) has gained international attention in recent decades, as an insurmountable amount of evidence surfaces about the damaging effects these crimes have on children and adolescents (Clawson & Dutch, 2008; Rahman, 2011; Svensson, 2006; Walker-Rodriguez & Hill, 2011). Further, CSEC has become a global industry, with children often named as the third most profitable, illegal commodity in the world

(Arlacchi, 2000; Bump & Duncan, 2003). While most research focuses on CSEC crimes in foreign nations (e.g., Asian, South American, and African countries), the exploitation of children in the USA is largely overlooked. Several researchers estimate sex trafficking of children at more than 200,000 in this country annually (Bryan, 2014; The Polaris Project, 2012). Moreover, it has been estimated that approximately 293,000–300,000 children are at risk, per year, in the USA (Estes & Weiner, 2001).

Notably, some researchers postulate that the numbers of at-risk youth is considerably underestimated (Chase & Statham, 2005). Indeed, there are indications that approximately one in five girls and one in ten boys are sexually abused before adulthood, with less than 35% of those cases being reported to authorities (National Institute of Justice, 2007). The majority of children at risk for commercial sexual exploitation are classified as "runaway" or "throwaway" youth (Walker-Rodriguez & Hill, 2011). The World Congress against Commercial Sexual Exploitation (1996) defined CSEC as follows: "It comprises sexual abuse by an adult and remuneration in cash or kind to the child or a third person or persons. The child is treated as a sexual object and as a commercial object. The commercial sexual exploitation of children constitutes a form of coercion and violence against children, and amounts to forced labour and a contemporary form of slavery" (p. 1).

The views and opinions expressed in this chapter are solely those of the authors and do not necessarily reflect the position of the Federal Bureau of Investigation, the U.S. Department of Justice, or the U.S. Government.

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CSEC is better understood as a form of child abuse in which children are exploited sexually for the sole purpose of monetary or material gain (Adelson, 2008; Bang, Baker, Carpinteri, & Van Hasselt, 2014; Estes & Weiner, 2001; Halter, 2010; US Department of Justice, 2007a, 2007b). This type of exploitation can occur both domestically and internationally. The National Institute of Justice (2007) released a special report confirming the growing number of known cases of CSEC both nationally and abroad. While it is generally believed that children are kidnapped and sold into this industry, "in the United States, it is more common for children to be exploited by family or friends" (National Institute of Justice, 2007).

The Department of Justice (2007a, 2007b) subsequently identified three tiers within CSEC crimes: local, regional, or international. Local CSEC can be accomplished by a single or small group of individuals with one or more victims. On this individual level, Walker (2002) estimates that a single trafficker can accrue $650,000 annually on the systemic exploitation of four children. Regionally, several adults participate in the interstate or transnational trafficking and exploitation of multiple victims. Finally, larger domestic or international networks can support the systematic sexual exploitation of children. These larger networks of organized crime profit significantly from the exploitation of children, procuring between $5 and $7 billion per year (Bump & Duncan, 2003).

CSEC can be thought of as a multidimensional industry that sexually exploits children for monetary gain (Mitchell, Jones, Finkelhor, & Wolak, 2011). CSEC, as a general classification of crime, includes more specific offenses such as child trafficking, child prostitution, child pornography, and sex tourism (Bang et al., 2014; Bolling & Harper, 2007; Scarpa, 2006). The most common or well-known forms of CSEC offenses are child sex trafficking, pornography, and sex tourism (Estes & Weiner, 2001).

The enormity of this global crisis requires a framework for understanding CSEC crimes and the subsequent facets that perpetuate the victimization of children. This chapter provides an overview of CSEC, both within and outside the USA. Specific crimes within CSEC are also discussed further combined with an examination of offender characteristics of these crimes. Victimology of CSEC crimes is reviewed, including male and international victims. Finally, an overview of historical and current CSEC legislation and policy is provided.

## Specific CSEC Crimes

The following sections review specific forms of CSEC crimes, including trafficking, prostitution, pornography, and sex tourism.

## Child Trafficking

The terms commercial sexual exploitation of children and child trafficking are often used interchangeably. Child trafficking, both domestically and internationally, can lead to a variety of other CSEC offenses; pornography, prostitution, forced labor; drug trafficking, and illegal adoptions (Scarpa, 2006). Therefore, it is essential to begin discussions of CSEC with the examination of child trafficking, its definition, and the mechanisms in which it occurs, as well as how law enforcement is attempting to combat it. Organized, U. N. C. A. T (2004) defined trafficking as: "the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person for the purpose of exploitation" (p. 42).

Child trafficking can be divided into two categories: (1) international trafficking, across international borders, and (2) domestic trafficking, within a country's own borders (Candappa, 2003; Chase & Statham, 2004). While international trafficking of children has garnered burgeoning international attention, domestic trafficking in the USA has only recently gained notice. Estimates of child trafficking in the USA are

variable at best, with researchers speculating that 200,000 children are trafficked in this country annually; another 244,000–360,000 are at-risk of being trafficked and sexually exploited (Bryan, 2014; The Polaris Project, 2012).

## Mechanisms of Child Trafficking

A consistent demand for children in the sex and labor markets perpetuates child trafficking both domestically and internationally. Women and children are often seen as the most vulnerable to trafficking. The very nature of children perpetuates the cycle of service in underground markets, subsequently furthering the demand for the kidnapping, abuse, and trafficking of children.

Children are targeted all over the world to be transported to various countries with high demands. The United Nations Office on Drugs and Crime estimated "during the period of 2007–2010, 17 percent of detected trafficking victims were girls, while 10 percent were boys" (Greenbaum, 2014). However, according to Mizus, Moody, Privado, and Douglas (2003), the USA was one of the top destinations for child trafficking victims according to market size. In 2012, the majority of international child victims entering the USA came from Mexico, Thailand, the Philippines, Honduras, Indonesia, and Guatemala.

Both domestic and international child trafficking victims in the USA have similar risk factors. These are pervasive at the individual, familial, community, and societal levels (Farley & Kelly, 2000; Greenbaum, 2014; National Research Council, 2013). Individual risk factors are: histories of abuse (physical, sexual, and neglect), runaway and/or homeless status, history of involvement in the legal system (child protective services, juvenile justice, or law enforcement), and LGBTQ youth (Estes & Weiner, 2001; Greenbaum, 2014; Klain, 1999; Muftić & Finn, 2013; Wilson & Widom, 2010). Poverty, unemployment, family dysfunction (e.g., criminality, mental health, and/or substance abuse), and limited education comprise familial factors that contribute to increased risk (Estes & Weiner, 2001; Greenbaum, 2014; Raymond, Hughes, & Gomez,

2001). On the community level, residing in high crime areas, exposure to prostitution, peer pressure, and lack of community resources increase risk for victimization (Curtis, Terry, Dank, Dombrowski, & Khan, 2008; Estes & Weiner, 2001; Greenbaum, 2014). Finally, societal risk factors for child trafficking can include: gender discrimination/violence, lack of awareness, and inadequate resources to combat child sexual exploitation (Greenbaum, 2014).

## Child Prostitution

As defined by the Convention on the Rights of the Child's Optional Protocol on the Sale of Children, Child Prostitution, and Child Pornography (2000), child prostitution is the "act of obtaining, procuring or offering the services of a child or inducing a child to perform sexual acts for any form of compensation or reward" (United Nations Economic and Social Council, 1996, p. 27). Child prostitution is included as a CSEC crime, because it includes the explicit manipulation by offenders and consumers of vulnerable children and adolescents (Bang et al., 2014, p. 17; Chase & Statham, 2004; Lim, 1998).

The number of children currently engaged in prostitution is increasing, with numbers reaching approximately ten million, and one million new children introduced annually (Willis & Levy, 2002). Unfortunately, the criminal justice system often views child prostitution as a delinquent act committed by runaways and "street youth" thereby underestimating the extent of such abuse (Flowers, 2001; Gray, 2005; Kreston, 2005). Federal and state laws, such as the Trafficking Victim Protection Act (2000), safe harbor laws, and the Protection, A. W. C. (2006), attempt to redefine child prostitutes as victims (Ashley, 2008; Clayton, Krugman, & Simon, 2013; Motivans & Kyckelhahn, 2007; Territo & Glover, 2013). Halter (2010) found that of 126 juveniles, ages 12–17, involved in prostitution throughout the USA, 60% were deemed victims.

## Mechanisms of Child Prostitution

Children and adolescents can either voluntarily join or be forced into prostitution. According to Bang et al. (2014), trafficked victims can be abducted, pressured by adults or peers, sold by parents, or traded among pimps. The children and adolescents are subsequently enmeshed in an international prostitution network and shipped across state and international borders with the intent of sexual exploitation.

The involvement of children and adolescents in prostitution traverses genders, races, sexual orientations, economic backgrounds, and cultures (Estes & Weiner, 2005). A number of precipitating factors have been identified as contributing to child prostitution. For example, several studies have found an association between children who have previous experience of abuse (physical, emotional, and sexual), and later become involved in prostitution (Clayton et al., 2013; Goldblatt Grace, 2009; Holger-Ambrose, Langmade, Edinburgh, & Saewyc, 2013; Williams & Frederick, 2009; Wilson & Widom, 2010). Pimps often target children and adolescents who experience family dysfunction, are on runaway or throwaway status, and children that demonstrate sexual or identity confusion (Clayton et al., 2013; Tyler & Johnson, 2006; Williamson & Prior, 2009; Wilson & Widom, 2010).

## Child Pornography

Unlike child trafficking and prostitution, child pornography is unique to CSEC crimes because the victim may not necessarily have direct contact with the consumer (Bang et al., 2014). According to the US Department of Justice, federal law defines child pornography as "any visual depiction of sexually explicit conduct involving a minor." Victims of child pornography are forced to perform lewd and lascivious acts including: "genital exhibition, masturbation, oral, anal or genital sex, sadomasochism, or bestiality, all while the offender documents the activity" (Bang et al., 2014, p. 25).

Child pornography is a rapidly growing industry with profits estimated at $20 billion (Willis & Levy, 2002). The present era of advanced technology has ushered in a new wave of child pornography. The increased affordability of computers, technological advancements, accessibility to and anonymity offered by the Internet, chatrooms, and webcams all contribute to the success of the child pornography industry. Between 1996 and 2006, the FBI's Innocent Images National Initiative estimates a 2026% increase in child pornography cases (Bang et al., 2014; Investigation, F. B. O., 2006).

## Mechanisms of Child Pornography

Technological advancements allow for unprecedented access, anonymity, and overall efficiency in disseminating and viewing child pornography. Further, these advancements have contributed to the emergence of new cyber specific crimes including cybervoyuerism (using the child's webcam to view them in a sexually explicit manner) and cyberexhibitionism (the offender displaying their genitals, via the Internet, to a minor) (Bang et al., 2014; Bourke & Hernandez, 2009). These latter crimes have become ever more present in recent years and have added a deeper dimension to CSEC and greater challenge to law enforcement (Bourke & Hernandez, 2009; Card, 2004; Shirley, 2012).

Victims of child pornography typically do not directly interface with the consumer, as is common in other CSEC-related offenses. Children can be groomed into creating child pornography through close family members or friends, or can be coerced from pimps or photographers. Children may be exploited through a family member or close friend who is producing the pornographic material, leading to increased exploitation and traumatization of the child. The US Department of Justice (2007a, 2007b) cites several other instances where child pornography can occur. Producers of the child pornographic content may venture to impoverished nations, purchase children and subsequently manipulate them, or target indigent families who may be led to believe they can provide children with a better life (US Department of Justice, 2007a, 2007b).

## Sex Tourism

Just as child prostitution and pornography can be linked to the global market of child trafficking, child sex tourism has also been identified as a lucrative industry (Todres, 1999). Lim (1998) defined child sex tourism as tourism organized and planned for the sole purpose of facilitating a commercial sexual experience with a child. According to Klain (1999), child sex tourism can either be explicitly sought after by "core sex tourists," or engaged in by "elective sex tourists" whose primary motivation for travel is not sex tourism, but who engages in sexual activity with a native minor when the opportunity presents itself.

Asia, Africa, and Central America, and South America are major sex tourism destinations. North Americans, on the other hand, were identified as the primary consumers of the sex tourism industry. Bang et al. (2014) stated that "lower ages of consent, legalization of prostitution, and absence of extradition in foreign countries can make sex tourism an appealing option for American child sexual offenders" (p. 35). In effect, sex tourism is thought to allow these individuals the opportunity to commit illegal, sexual activity without fear of prosecution.

Unlike other CSEC crimes, the exploitation occurs overseas, and often with foreign children. While both the exploitation and fiscal exchange takes place in foreign countries, Americans play a role in perpetuating child sex tourism. Indeed, it is estimated that North Americans consist of approximately one-fourth of the global sex industry, which includes two million children (Panko & George, 2012). A myriad of conditions, such as "underdevelopment, poverty, marginalization, avarice, lack of empowerment, corruption, lackluster law enactment and enforcement, and widespread insensitivity to rights of children" in host countries, play a role in the continuation of sex tourism (George & Panko, 2011).

### Mechanisms of Sex Tourism
The global nature of sex tourism is driven by consumer demands that perpetuate the need for an increasing number of children to exploit. In addition, some offenders are under the assumption that younger children still possess their virginity, potentially reducing the average age of exploited children (Li, 1995; Montgomery-Devlin, 2008).

Similar to child pornography, sex tourism has both producers of the crime and consumers (Bang et al., 2014; Robinson, 1997). However, facilitators of sex tourism include various actors: hotel workers, airlines employees, taxi drivers, tour operators, corrupt law enforcement and government officials, etc. (Panko & George, 2012). The impoverished nature of the host countries often lends itself to pimps and producers who lure potential victims with the promise of money. Sometimes, well-intentioned, but destitute families introduce their own children into the industry, hoping to give them a better future; however, they have fallen prey to the false promises of pimps and producers (George & Panko, 2011).

## Offender Characteristics

Most extant research divides CSEC offenders into four categories: (1) child trafficker, (2) pimp/john, (3) pornographer/pornography consumer, and (4) traveler/enticer (Bang et al., 2014; Bolling & Harper, 2007; Scarpa, 2006).

### Child Trafficker

The US Department of Justice (2007a, 2007b) cites seven different roles that exist within organized child trafficking; (1) *investors*, also called "arrangers" are offenders who produce the financial capital necessary for operations and often oversee the enterprise; (2) *recruiters* are required to find the children and collect money from families; while (3) *transporters* move the victims to different destinations in countries where child trafficking is especially profitable (e.g., the USA); (4) *public officials* may receive bribes to provide proper documentation for the victims; (5) *informers* are tasked with gathering intelligence on border surveillance, law enforcement activities, and transit operations; (6) *debt collec-*

*tors* gather trafficking fees, sometimes as much as $30,000 per person; (7) *money movers* launder the trafficking profits (US Department of Justice, 2007a, 2007b).

This enormous and interwoven network of traffickers makes can make it difficult to identify specific characteristics of offenders. Research suggests that child traffickers are primarily males (Hughes, 2008; Walker-Rodriguez & Hill, 2011; Walters & Davis, 2011). These offenders can be characterized in a variety of forms: working alone or within an organization, foreign or domestic, and varying races and ethnicities (Bang et al., 2014). Some research suggests that in some countries, females are engaging in trafficking at a higher rates than other crimes (Sarrica, 2009). With the USA being one of the most profitable countries for trafficking, most traffickers have legal status here in order to more easily facilitate trading. In addition to human trafficking, many traffickers affiliated with organized crime networks traffic weapons and drugs as well (Bertone, 2000; Walters & Davis, 2011; Wyler & Siskin, 2010).

## Pimp/John

The vast majority of prostitutes fall victim to violent crime at the hands of both their customers and pimps (Hunter, 1994; Miller, 1995; Miller & Schwartz, 1995; Nixon, Tutty, Downe, Gorkoff, & Ursel, 2002; Raphael & Shapiro, 2004; Schissel & Fedec, 1999; Valera, Sawyer, & Schiraldi, 2000; Walker, 2002). For this reason, it is imperative that offender characteristics be identified within this specific CSEC offense. Child prostitution offenders often fall within two main categories: Pimps and Johns. The term "pimp" is typically defined as "an individual that procures, grooms, and markets a youth for prostitution," while "'johns' are sexual offenders who solicit sex from minors" (Bang et al., 2014).

Although some child and adolescent prostitutes work independently, several studies have found that up to 80% have been either coerced or forced to engage in prostitution by pimps and/or

traffickers (Chapkis, 2003; Farley, Lynne, & Cotton, 2005; Raphael & Shapiro, 2002; Raymond et al., 2001). Several researchers have pointed to the paucity of articles related to pimps and johns. Indeed, even less is known regarding the difference between adult versus child and adolescent prostitution (Chase & Statham, 2004; Hughes, 2004).

The overlap between CSEC crimes makes it possible to conclude certain characteristics about offenders involved with child prostitution. Indeed, "Johns' can be thought of as similar to of sexual offenders or consumers of child sexual exploitation" (Bang et al., 2014). Offenders of child prostitution are typically males of varying ages, with occupations ranging from blue-collar workers to career professionals. Pimps also engage in a countless other serious offenses from "extortion, arms dealing, fraud, auto theft and export, robbery, money laundering, and immigration fraud," as well as child pornography and kidnapping. (Raymond et al., 2001; The Polaris Project, 2012).

Pimps are exceptionally skilled at scouting vulnerable youth, assessing their particular needs, and preying upon their victims (Gragg, Petta, Bernstein, Eisen, & Quinn, 2007). The recruiting period for pimps and their victims consists of: befriending and wooing them, making extravagant promises (e.g., love, a better life, money), and then gradually exerting more power and control over the victims (Raymond et al., 2001; The Polaris Project, 2012). Raymond et al. (2001) stated that pimps often resort to drugs and/or alcohol as mechanisms for sedating victims into compliance. Offenders often complete a grooming or seasoning process to prepare children to have commercial sex with strangers (The Polaris Project, 2012). The process involves physical/sexual abuse (e.g., beating, whipping, confinement, rape, food deprivation), and psychological abuse (e.g., isolating victims from community, renaming them with nicknames, verbal abuse, and dictating victims' dress and speech) (The Polaris Project, 2012).

Johns are typically regarded as "men who buy sex with children" (Cedeño, 2012). These

offenders can be of any age, race, religion, or socioeconomic background (Bennetts, 2011). Johns were also more likely to engage in a variety of crimes such as violent crimes against women, substance abuse-related crimes, assaults, crimes with weapons, and crimes against authority (Farley et al., 2011).

## Pornographer/Pornography Consumer

The anonymity and speed with which the Internet provides offenders the opportunity to both produce and view child pornography presents increasing challenges for law enforcement. The globalization of the child pornography market now makes this CSEC offense one mouse-click away. As a result of the rapidly growing online presence of child pornography, researchers know very little about child pornographers or their consumers (Bang et al., 2014; Bourke & Hernandez, 2009; Webb, Craissati, & Keen, 2007). Several researchers have advocated for the disbanding of labels, such as "child pornographers," "child abusers," and "pedophiles," because of overlap between CSEC crimes and offender (Bourke & Hernandez, 2009; Hernandez, 2000; Seto, Cantor, & Blanchard, 2006; Wolak, Finkelhor, & Mitchell, 2005).

Child pornography consumers can vary in age, and generally range from 25–50 years (Burke, Sowerbutts, Blundell, & Sherry, 2002). Other prominent characteristics of child pornography consumers are that they are white males, in their 30s, and heavy internet users (Bang et al., 2014; Blundell, Sherry, Burke, & Sowerbutts, 2002; Schneider, 2000; Webb et al., 2007). These offenders were often better educated, possessed higher overall intelligence, were employed, and had no prior criminal history compared to groups with contact sex offenses on children (Blundell, Sherry, Burke, & Sowerbutts, 2002; Burke et al., 2002; Schwartz & Southern, 2000; Webb et al., 2007).

Research suggests that consumers do, indeed, have prior criminal history and/or prior sexual contact with children. Seto and Eke (2005) reported that one quarter of the sample (adult male child pornography offenders) had prior contact sexual offense and child pornography offenses. Hernandez (2000) found that "76 percent of 62 child pornography offenders in a US prison, who did not have previous convictions for contact sex offenses, disclosed—while in treatment—that they had sexually assaulted children at an average of 30.5 children per offender" (as cited in Webb et al., 2007, p. 450).

## Traveler/Enticer

According to Bang et al. (2014), there is a lack of research specifically identifying offender characteristics of travelers. Federal data suggest that sex travelers and enticers are predominantly middle-age, Caucasian males. Law enforcement experience suggests travelers are often preferential offenders and may exhibit a preference for one gender in a given age group, or may victimize children regardless of age of gender characteristics (Lanning, 2001). Situational travelers, are those offenders who engage in illegal sexual activity with children and adolescents through opportunity.

The goal of sex travelers is primarily the hands-on victimization of a minor. Bang et al. (2014) reviewed various federal traveling cases and suggest specific trends for travelers and enticers of children. First, travelers must have sufficient knowledge of chatrooms and social networking sites that engage in CSEC offenses. Travelers need to have enough financial capital to fund their travel and/entice victims. Therefore, these offenders must either be employed or have the necessary means to acquire funding. Finally, Bang et al. (2014) found certain characteristics common among Travelers. For example, some Travelers display antisocial traits (e.g., manipulating others), while others are as emotionally immature

adults who prefer socializing with younger ages (Bang et al., 2014).

## Victimology

A thorough examination of CSEC requires an assessment of victims. It is essential to identify possible risk factors and vulnerabilities associated with victimization and subsequent exploitation of children and adolescents. Various CSEC offenses (child trafficking, prostitution, pornography, and sex tourism) share certain victim characteristics, such as age, gender, and racial or ethnic groups (Bang et al., 2014). However, distinctions exist between male and female victims, as well as domestic and international victims.

Females comprise the overwhelming majority of CSEC victims (Bang et al., 2014; Boxill & Richardson, 2007; Estes & Weiner, 2001; Fong & Berger Cardoso, 2010). Previous research suggests that CSEC victims are most commonly girls, between the ages of 12 and 16 (Dottridge, 2002; International Labour Organization, 2012; US Department of State, 2012; Walker-Rodriguez & Hill, 2011). Hughes (2007) found that 70% of women currently involved in prostitution first entered into commercial sexual exploitation before the age of 18. Indeed, the average age in which children are trapped into commercial sexual exploitation is between 11 and 14, although cases of infant victims have been identified (Smith, 2008; US Department of Justice, 2007b).

In an interview, a former domestic minor sex trafficking victim stated,

> "We're all under 18. We're all the same age. There would be a few girls I knew who were in their 20s… but they were doing it since they were our age anyways. I did wait till 12, and these girls had been doing it since they were eight or nine and now they are like 23" (Shared Hope International, 2009).

While females represent the majority of CSEC victims, it is imperative to examine other populations that are victimized. A wide range of races and ethnicities are exploited by CSEC offenders; such as African American, Latino, and Asian children who often experience high rate of victimization (Finkelhor & Ormrod, 2004; Halter, 2010;

Spangenberg, 2001; UN Economic and Social Council, 1996). In order to provide a comprehensive overview of CSEC victims, it is necessary to discuss different populations of victims.

### Male Victims

Society often views sexual exploitation as a solely female phenomenon. Consequently, most research, funding, and debate concerns the exploitation of females. The view that "boys are not sexually exploited" is a common myth among many professionals that leaves this population particularly vulnerable (Lillywhite & Skidmore, 2006). Contrary to societal and many professionals' opinions, an increasing number of boys are at risk of exploitation (Lillywhite & Skidmore, 2006; Williams & Frederick, 2009).

The scope of the problem regarding boys and young men becoming sexually exploited remains largely hidden (Palmer, 2001), possibly due to a culture where males are expected to be strong, powerful, and in control of their own physical well-being. An additional stigma attached to male sexual exploitation is the assumption that the abuse is directly linked to homosexuality (Chase & Statham, 2004). As a result of these added stigmas, male victims are likely to underreport victimization.

Palmer (2001) attempted to identify two groups of boys and young men who seem to be at risk for sexual exploitation: (1) "those escaping from situations where they are vulnerable to abuse and engage in transactional sex for survival on the street, and (2) those individuals whose early sexual abuse conditioned their own abusive behavior towards others, leading them into a prostitution lifestyle" (as cited in Lillywhite & Skidmore, 2006, p. 352).

Several studies have attempted to identify lifestyle risk factors in boys and young men who fall victim to sexual exploitation (Darch, 2004; Davies & Feldman, 1997, 1999). However, these studies found contradictory results for several risk factors (e.g., drug use, homelessness, and sexual preference). One risk factor, sexual abuse, seemed to be a common precedent for male

CSEC victims. Scott and Skidmore (2006) conducted a review of seven case histories of sexually exploited young men and found that 71% had experienced sexual abuse, as well as parental alcohol problems, prior to exploitation. Other potential risk factors for boys and young men include rejection or alienation from family and friends related to disclosure of sexual identity (Barnardo, 2002; Palmer, 2001).

The average age of boys involved in prostitution is younger than girls, girls as young as 9 years old and boys as young as 6 years old, along with young virgins attract the highest prices (Barnardo, 2002; Palmer, 2001; Walker-Rodriguez & Hill, 2011). Boys and young males involved in commercial sexual exploitation are often less visible than girls, with the exploitation occurring in less open spaces (e.g., public toilets, parks, bus stations, and arcades) (Chase & Statham, 2004). However, some commonalities have been found between both young boys and girls who are sexually exploited. In particular, the breakdown of the family unit, absentee parents, abuse, and neglect have been associated with increased risk for victimization regardless of gender (Chase & Statham, 2004).

## Domestic Victims

To achieve a thorough examination of CSEC, victimization in the USA warrants discussion. The USA ranks as the world's second largest destination and/or market, after Germany, for children trafficked for sexual exploitation (Mizus et al., 2003). There are indications that there are at least 100,000 victims in the USA (Estes & Weiner, 2001; Smith, 2008), and up to 325,000 more at risk (Estes & Weiner, 2001; Hughes, 2007; US Department of Justice, 2007a, 2007b). In a national wide analysis of human trafficking, 63% involved US citizens, and almost one-third (32%) were minors (Kyckelhahn, Beck, & Cohen, 2009).

American children and adolescents are vulnerable to a variety of factors that could potentially contribute to CSEC victimization. Families of prostituted youth are more likely to be charac-

terized by parental criminality, substance abuse, domestic violence, and neglect (Curtis et al., 2008; Williams & Frederick, 2009). According to Congressional findings in 2005, "Runaway and homeless children in the United States are highly susceptible to being domestically trafficked for commercial sexual exploitation" (Sec. 2, p. 210). Some research estimates have suggested that 10–15% of US "street" children, or approximately 293,000 minors, are at risk for victimization in commercial sexual exploitation (Estes & Weiner, 2001). Running away from home has been shown to be the most significant predictor of sex trade involvement in youth (Bell & Todd, 1998; Nadon, Koverola, & Schludermann, 1998).

Females at risk for CSEC are more likely to be exploited in early childhood relationships (Pearce, 2003). Of the prostituted young females in the USA, 50–90% are under the control of a sex trafficker (Albanese, 2007; Estes & Weiner, 2001, 2005). Moreover, children and youth report extreme violence from pimps, including daily physical and aggravated assaults, as well as mandatory drug use (Gragg et al., 2007).

CSEC victims in the USA are often arrested and prosecuted as offenders (Fichtelman, 2014). In 2005, approximately 1450 youths were either arrested or detained for prostitution-related offenses (Mitchell, Finkelhor, Jones, & Wolak, 2012). While Federal statute defines prostituted minors under the age of 18 as "vulnerable victims unable to consent to being sexually exploited and trafficked," state and local governments continue to treat them as offenders (Albanese, 2007; Federal Advisory Committee on Juvenile Justice, 2007; Halter, 2010).

## International Victims

There is virtually no country in the world that is not affected by human trafficking and commercial sexual exploitation to some extent whether it be transportation, destination, or providing the victims. The US Department of State (2002) estimated that globally 700,000 women and children are trafficked each year. International trafficking of children has become a lucrative business. The

globalization of transport, labor markets, and socioeconomic inequalities, all appear to increase demand for trafficked victims (Candappa, 2003).

Economic and political changes in some European countries have introduced a "feminized poverty" that seemingly furthers the movement and trafficking of impoverished children between countries (Pearce, 2000). For human traffickers, access to the Internet has also created new, more efficient methods for recruiting potential victims. Access to the Internet means "organized crime groups in India and Russia are able to buy and sell women with the ease of a mouse-click" (Shelley & Lee, 2007, p. 119). Poor living conditions and extreme poverty often increase children's vulnerability (Bang et al., 2014). As in the USA, children become involved in commercial sexual exploitation as a means of supporting their family. Some families may even go as far as selling their children under the false promise of a better life (Estes & Weiner, 2001).

International victims of commercial sexual exploitation range in age from 2 to 17 years, with most victims falling in the adolescent age group (Bump, 2009; Fong & Berger Cardoso, 2010). Irrespective of age, victims that are trafficked from other countries to the USA find themselves indebted to their traffickers (Bang et al., 2014). These international victims remain in servitude to their abusers (e.g., traffickers and pimps) well into adulthood.

Internationally, girls are particularly vulnerable to being trafficked into the sex trade (International Labour Organization, 2012). In parts of Nigeria, children who have experienced abuse at home are often forced into prostitution (Adedoyin & Adegoke, 1995), whereas child prostitution in Nepal is more likely to be linked to poverty (Poudel, 1994). As previously mentioned, child prostitution in the USA is more closely linked to childhood sexual abuse (Silbert & Pines, 1981).

Children and adolescents who become CSEC victims come from countries all over the world. Most sex-trafficked women and girls are from Russia (Schauer & Wheaton, 2006); and the top destinations, in rank order of market size, are Germany, the USA, Italy, the Netherlands, Japan,

Greece, India, Thailand, and Australia (Mizus et al., 2003). In Asia, an estimated one million children in the sex trade experience conditions often akin to slavery (UN Economic and Social Council, 1996). Further, Farley et al. (2005) found that 82% of a sample of women involved in prostitution in Vancouver, Canada reported being sexually abused during childhood, with an average of four perpetrators.

Chase and Statham (2005) recount the process of abduction and entrance into commercial sexual exploitation:

> "Children from Africa tend to disappear from social services care, while a trafficker or third party usually meets those from Eastern Europe at the point of entry. Others enter clandestinely in the backs of lorries, some who are older arrive with a student visa, others arrive with a man claiming to be a boyfriend, and the age of the girl or young woman is disguised. Once in the UK, they may be used in prostitution or domestic exploitation, or they are trafficked through the UK to other European countries" (p. 9).

Overall, domestic and international victims of CSEC often share common risk factors and life experiences. These children are typically labeled "runaway or throwaway kids" and experience a variety of different risk factors including: difficult home lives, abuse, poverty, and abandonment (Bang et al., 2014).

## CSEC Legislation

Legislation has been enacted to prosecute CSEC offenders. In the section below, a history of CSEC legislation is reviewed, followed by a discussion of current Federal statutes and provisions.

### Legislative History

The inherent cognitive and emotional immaturity of children renders them incapable of consenting to sexual acts and puts them at great risk for victimization. This vulnerability has instigated international efforts to protect the rights of children. The United Nations Convention on the Rights of the Child delineated five articles detail-

ing the manner in which children should be protected from coercion into prostitution under international law (as cited in Bang et al., 2014, p. 48, Table 9.1).

Unfortunately, while international doctrine provides guidance to law enforcement, the laws are not enforceable in the same manner of State and Federal laws. (See Bang et al., 2014 for an extensive overview of historical and current CSEC legislation.) In 2000, the Trafficking Victims Prevention Act (TVPA) was introduced and allocated over $95 million for anti-trafficking law enforcement and assistance programs. Additionally, severe punishments were established, including lifetime imprisonment and severe economic penalties for those convicted of human trafficking. In 2003 and 2005, the reauthorizations of TVPA added more provisions regarding the prosecution of human trafficking crimes. Specifically, the US legal system was authorized to prosecute offenses committed overseas by American government employees or contractors. In addition, the FBI was awarded jurisdiction to investigate severe forms of trafficking both nationally and abroad. Finally, these provisions included increased preventative services (Bang et al., 2014).

The William Wilberforce Trafficking Victims Protection Reauthorization Act (2008) strengthened Federal efforts to fight international and domestic trafficking. Section 1589 allows for "prosecution under subsection (a)(1) in which the defendant had a reasonable opportunity to observe the person so recruited, enticed, harbored, transported, provided, obtained or maintained, the Government need not prove that the defendant knew that the person had not attained the age of 18 years" (p. 26). From this act, prosecutors no longer shouldered the burden of proof that the offender was cognizant of the child's minor status. The act also criminalized all acts of Pimping even without proof of force, fraud, coercion, or the victim's age. The William Wilberforce Trafficking Victims Protection Reauthorization Act (2008) effectively made the movement of children for the purposes of exploitation a Federal crime (Bang et al., 2014).

Furthermore, the legislative intent of the Mann Act (§2421) was amended as part of the Child Sexual Abuse and Pornography Act of 1986 that intended to reduce the incidence of sexual exploitation, particularly of children (Todres, 1999). The Communication Decency Act (CDA) and Child Pornography Prevention Act (CPPA) were passed by Congress in 1996 to combat child pornography. The CDA was the first piece of legislation that made it illegal to distribute obscene or indecent material via the Internet. However, Graham (2000) noted that the ambiguity of the statute was effectively publicized by *Reno v. American Civil Liberties Union*. Furthermore, the CDA does not use terminology in the legislation that is specific to child pornography.

In contrast, the CPPA explicitly addressed the growing problem of child pornography. The CPPA criminalizes "any visual depiction, including any photograph, film, video, picture, or computer-generated image or picture" that "is, or appears to be, of a minor engaging in sexually explicit conduct" (Section 8, paragraph a). The CPPA prohibits "any sexually explicit image that was advertised, promoted, presented, described, or distributed in such a manner that conveys the impression of a minor engaging in sexually explicit conduct" (Section 8, paragraph b). The CPAA thus criminalizes the possession and distribution of pornographic images depicting minors (Bang et al., 2014).

## Federal Laws Used to Prosecute CSEC Offenders

There are several statutes, under which various CSEC crimes can be prosecuted. First, regarding traveling cases, Title 18 United States Code § 2422(a) prohibits anyone from luring a child, under 18 years of age, by knowingly persuading, inducing, enticing, or coercing any person to travel in interstate or foreign commerce to engage in prostitution or sexual activity that constitutes a criminal offense. This statute is used when offenders manipulate children to travel for the purposes of exploitation. Enticement of children for sexual exploitation is prosecuted under 18 USC § 2422(b) (Todres, 1999). Statute

18 USC § 2422(b) prohibits a person from using the mail or any other means of interstate commerce, including a computer, to knowingly persuade, induce, entice, or coerce a minor to engage in prostitution or any illegal sexual activity. This offense is punishable by up to 20 years' imprisonment (Jullien, 2002; Todres, 1999).

When CSEC offenders lure child victims to a desired meeting location and subsequently transport them for the purpose of exploitation, they are subsequently charged with 18 USC § 2423(a). This Statute prohibits any person from transporting a child under 18 years of age in interstate commerce with the intent that the child engage in prostitution or any other criminal sexual activity. Bang et al. (2014) noted that a violation of 18 USC § 2423(a) carries a minimum sentence of 10 years and a maximum of life imprisonment. Statute 18 USC § 2423(b) is used when offenders travel to meet children. The statute makes it a federal crime to travel across state lines or internationally for the purpose of engaging in any illicit sexual conduct with another person, punishable by up to 30 years' imprisonment. Federal law 18 USC § 1591 prohibits the "recruitment, enticement, harboring, transporting, providing, obtaining, advertising, maintaining, patronizing, or soliciting of a person, in or affecting interstate or foreign commerce, knowing, or, except where the act is advertising, in reckless disregard of the fact that force, fraud, or coercion will be used to cause the person to engage in a commercial sex act or that the person to be caused to engage in a commercial sex act has not attained the age of 18." Offenses are punishable by a minimum of 15 years to a maximum of life imprisonment under the following circumstances: if force, fraud, or coercion are used to commit the crime or if the child is under 14 years of age (Bang et al., 2014). Finally, CSEC offenders can be charged with selling or buying children under statute 18 USC § 225, which is punishable by a minimum mandatory sentence of 30 years in prison (Bang et al., 2014).

For the prosecution of pornography offenders, Title 18 U.S. Code, Chapter 110—Sexual Exploitation and other abuse of children, and Chapter 117—Transportation for Illegal Sexual Activity and Related Crimes are used. As regards child pornography cases, offenders can be prosecuted as possessors, recipients, distributors, or producers (Bang et al., 2014). These crimes are prosecuted under 18 USC §§ 2251, 2252, 2252A, respectively. Possession of child pornography is punishable by up to 10 years in prison under 18 USC § 2252 (a) (4) (B) and 2252A (a) (4) (B). Receipt, transportation, or distribution of child pornography is punishable under 18 USC §§ 2252 (a)(1), (2) and 2252A(a)(1), (2) with a minimum penalty of 5 years imprisonment. Finally, the production and advertisement of child pornography is punishable under 18 USC §§ 2251 and 2260(a) and carries a minimum mandatory sentence of 15 years in prison.

Law enforcement officials often use additional statutes to prosecute crimes that occur in the process of CSEC. Bang et al. (2014) found that these statutes include: "the transfer of obscene material to minors (18 USC § 1470), punishable by up to 10 years, the aggravated sexual abuse of a child (18 USC § 2250) punishable by up to life imprisonment, and the failure to register as a sex offender (18 USC § 2250), punishable by up to 10 years." Federal law can require a defendant to pay restitution to the child victim on a variety of terms including: any medical or psychological services received as a result of the crime, necessary transportation, child care expenses, temporary housing, lost income, attorney's fees, and other losses suffered due to 18 USC § 2259.

## Conclusion

The commercial sexual exploitation of children (CSEC) is an important topic that must be addressed as rates of victimization are increasing both nationally and internationally. CSEC victimization impacts all genders, nationalities, sexual orientations, and socioeconomic classes. The purpose of this chapter is to provide individuals with a comprehensive overview of the various forms of commercial sexual exploitation, the mechanisms of each, specific crime, and characteristics of both offenders and victims.

CSEC has been shown to be a pervasive crime that includes various forms of exploitation. Offenders often target disenfranchised, vulnerable youth for their personal and monetary gain. Victims are often marginalized and disadvantaged in a variety of spheres (e.g., intellectual, physical, social, emotional). CSEC victims often become enmeshed in a cycle of manipulation, crime, and abuse. Research must continue to examine various CSEC offenses, the offenders who commit the crimes, and their victims, who are often unknown and forgotten.

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# Female Sexual Offenders

Kristen M. Budd

"Women don't do such things!" (Wijkman, Bijleveld, & Hendriks, 2010) is a declaration that accurately captures societal and cultural resistance to recognizing that women commit sex crimes. Historically, sexual offending has largely been associated with men for various reasons. In part, this association is driven by public panics that stem from intense media depictions of male sexual offenders who commit serious, albeit rare, sex crimes such as a rape-murder against strangers, specifically children victims (Jenkins, 1998; Zgoba, 2004). In addition, the observation that women sexually offend goes against normative sexual scripts we ascribe to gender, such as the stereotype that women are sexually passive and are unwilling, or possibly unable, to commit such crimes due to their delicate and nurturing nature (Denov, 2003, 2004a). In contrast, men are viewed as possessing stronger sexual drives as well the physical capability to carry out such crimes, which is a more intuitive logic that explains their sexual offending (Denov, 2003, 2004a). Given the historical resistance to recognizing female sexual offending, a recent study found approximately 65% of respondents disagreed or strongly disagreed that female-perpetrated sex crimes were less serious than sex crimes committed by men (Cain, Sample, & Anderson, 2015). This suggests public perceptions of female sexual offenders are shifting. It is unknown whether these perceptions are driven by media depictions of female sexual offenders, but it highlights that the public is beginning to recognize the severity of sex crimes committed by women.

Beginning in the 1980s and early 1990s, the focus on sex crimes slowly shifted to include discussions about and research on female sexual offenders (FSOs), their crimes, and their victims. Within the last decade, this body of knowledge has expanded greatly; more than in the previous 30 years combined (Cortoni, 2015). In light of developments in the field, scholars now are calling for a gender-specific approach toward FSOs because research has uncovered inherent differences between women and men who sexually offend, such as offending behavior and recidivism rates (Gannon & Cortoni, 2010). This has led to a growing body of literature that provides new insights about women who commit sex crimes. Even with this surge in research and scholarly activity, our knowledge of females who sexually offend is still in its infancy compared to what we know about their male counterparts.

While official crime statistics like the Uniform Crime Reports (UCR) show the majority of sexual offenses are committed by men, women perpetrators account for a sizable amount of sex crimes. More importantly, beyond numbers, these

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crimes have serious short-term and long-term consequences for sexual abuse victims (Deering & Mellor, 2011; Tsopelas, Tsetsou, Ntounas, & Douzenis, 2012). Self-report studies where victims are asked about the effects of female-perpetrated sexual abuse report psychological impairment, mental health issues, sexual/intimacy problems, substance abuse problems, and self-harm such as self-mutilation and suicide attempts (Deering & Mellor, 2011; Denov, 2004b; Dube et al., 2005; Tsopelas et al., 2012). Based on the best evidence, although women who sexually offend are the minority, the consequences for their victims are significant and suggest sexual offenses committed by women is a critical concern. For professionals, practitioners, and students to gain a better understanding about women who sexually offend, this chapter addresses the following topics: sociodemographic characteristics of FSOs and their victims; the prevalence of female sexual offending, including recidivism rates of FSOs; typologies of FSOs; group composition and offending behaviors; and the criminal justice system's response to this population.

## Who Are Female Sexual Offenders?

Like male sexual offenders, females who sexually abuse are a heterogeneous population; there is no one "one size fits all" type. While the media typically tends to focus on high-profile cases of female school teachers who have sexual relations with their younger male students (Knoll, 2010), there are a variety of female sexual offenders who go beyond this offense narrative. Based on prior research, there are some overarching characteristics of FSOs from which we can make some generalizable statements. Although these are patterns that have been identified in the literature, FSOs have a variety of sociodemographic characteristics. In addition, different samples of FSOs, for example, from the criminal justice system versus a clinical setting, will yield different characteristics. Keeping this caveat in mind, this section will help readers visualize what might be described as a "typical" FSO. It is unknown how

many FSOs are living in communities who have yet to be identified by social services or the criminal justice system, especially given there is still a cultural resistance to recognize that women commit sex crimes.

## Characteristics of Female Sexual Offenders

Women who sexually offend have been found to be, on average, in their mid- to late-20s or early 30s (Budd, Bierie, & Williams, 2017; Ferguson & Meehan, 2005; Gillespie et al., 2015; Sandler & Freeman, 2007; Williams & Bierie, 2015). In two studies that have the largest sample size to date of female-perpetrated sexual assault incidents, the average age of female sexual offenders who offend alone (solo FSOs), was approximately 26 years old (Budd et al., 2017; Williams & Bierie, 2015). This average was based on data from 37 states that spanned 21 years. While this implies young adult to middle-aged offenders, studies document that female sexual offenders can range from juvenile offenders as young as 10–11 years of age, to elderly offenders who are in their 60s and 70s (Fazel, Hope, O'Donnell, & Jacoby, 2002; Levenson, Willis, & Prescott, 2015; Vandier & Kercher, 2004; Vandiver & Teske, 2006).

There is consistent evidence that FSOs are predominately Caucasian (Ferguson & Meehan, 2005; Sandler & Freeman, 2007; Vandier & Kercher, 2004; Williams & Bierie, 2015). While there is some fluctuation on the percentage depending on study sampling, most scholars report Caucasians make up anywhere from 75% to 90% of FSOs. Williams and Bierie (2015) found that approximately 81% of their sample was Caucasian or Hispanic, 18% was Black, and 1% was of another race, specifically Asian or Native American. Due to the source of their data, (the National Incident Based Reporting System or NIBRS), Caucasian and Hispanic subjects were combined; nevertheless, their findings support descriptions of the racial characteristics of FSOs that have been

reported in other studies. For instance, Vandier and Kercher (2004) and Sandler and Freeman (2007) had similar percentages in their research: 83–88% Caucasian, 12–16% Black, and about 2% another race.

Research also supports that women who sexually offend have high levels of early life and lifetime trauma. These traumas range from emotional abuse or neglect (Levenson et al., 2015; Strickland, 2008; Wijkman, Bijleveld, & Hendriks, 2010), physical and/or psychological abuse (Kaplan & Green, 1995; Strickland, 2008; Wijkman et al., 2010), a history of sexual abuse (Wijkman et al., 2010), childhood sexual abuse (Gannon, Rose, & Ward, 2008; Johansson-Love & Fremouw, 2009; Kaplan & Green, 1995; Levenson et al., 2015; Lewis & Stanley, 2000; Turner, Miller, & Henderson, 2008), and childhood physical abuse (Gannon et al., 2008). Evidence also indicates FSOs are likely to suffer from mental health issues, such as posttraumatic stress disorder, anxiety disorder, and personality disorders, and they are more likely to have substance abuse problems (Faller, 1995; Mathews, Matthews, & Speltz, 1991).

In a recent study, Levenson et al. (2015) investigated a sample of 47 U.S. FSOs recruited from outpatient and secure sex offender treatment programs to assess their adverse childhood experiences (ACE). They then compared these offenders' ACE scores to those of women in the general population. Their survey captured various types of mistreatment prior to the age of 18: emotional, physical, and sexual abuse, emotional and physical neglect, and household dysfunction such as domestic violence, divorce, or a household that had a substance-abusing, mentally ill, or incarcerated household member. Overall, FSOs compared to the general female population had much higher rates of child sexual abuse (more than three times the odds), verbal abuse (four times the odds), and emotional neglect (more than three times the odds) (Levenson et al., 2015). Female sexual offenders were also more likely to experience sexual abuse and emotional neglect in childhood compared to their male counterparts (Levenson et al., 2015).

## Victims Characteristics of Female Sexual Offenders

Pertaining to victim characteristics, stranger victimizations by females are rare, typically accounting for less than 10% of victimizations (Budd et al., 2017; Wijkman et al., 2010; Williams & Bierie, 2015). While there is an expansive age range of victims (from infants to adults), research indicates the mean age of victims for FSOs is somewhere around 12 years old (Budd et al., 2017; Ferguson & Meehan, 2005; Sandler & Freeman, 2007; Vandier & Kercher, 2004; Wijkman et al., 2010). For example, Ferguson and Meehan (2005) found that almost 70% of the victims were between the ages of 12 and 16, 15% were under 12, and 1% were adults. In contemporary research, Budd et al. (2017) found that solo female sexual offenders victimized youth who were approximately 12 years old, on average. Depending on whether the female offended alone or with others, the average age of victims spanned from approximately 12 years old to 16 years old (Budd, 2017).

Victim gender selection patterns for women who sexually offend are less straightforward than victim gender selection patterns of male sexual offenders, or, as stated by Johansson-Love and Fremouw (2009), it seems FSOs are less discriminating when it comes to victim gender. While male sexual offenders have a much higher propensity to offend against females (Williams & Bierie, 2015), there does not seem to be a direct and clear preference for a victim gender based on data derived from sexual assaults committed by FSOs. For instance, Williams and Bierie (2015) and Budd et al. (2017) found that solo female offenders victimized males in approximately 54–55% of the reported sexual assault incidents and victimized females in approximately 42–43% of the sexual assault incidents. Wijkman et al. (2010) had similar findings in that 60% of their sample of female sexual offenders abused a female, whereas 31% abused a male. In contrast, other studies suggest male victims are more likely to be sexually abused by women. Using a sample of FSOs from New York State, Sandler and Freeman (2007) found that approximately 57% of the victims were male and 34% of the

victims were female. Vandiver (2006) also found that 63% of her sample of solo FSOs offended against males. Given the state of findings on victim gender, FSOs are more likely to have victims of either gender compared to male sexual offenders who have been found to favor female victims.

In summary, based on a culmination of evidence, the typical woman who sexually offends is likely Caucasian and in her 20s or 30s. Victims are most likely known to the offender, and there is consistent data that stranger victimizations are rare. There is a lack of victim gender preference, although this could change as research on victim selection is ongoing. Compared to the general population, FSOs have suffered a host of trauma. It seems these traumas affect female sexual offenders to a greater extent that those in the general population, the traumas begin at a young age, and the traumas often persist throughout adulthood.

## Female Sexual Offending: The Numbers

Multiple sources provide estimates of the number of women who sexually offend, such as government-derived crime data and statistics produced by researchers who study FSOs. While each source provides information on the number of FSOs, consumers of these numbers should keep in mind that each of these sources has their own strengths and limitations. As with other types of offenses, there is the "dark figure" of crime—crimes that do not get reported to the police nor result in an arrest and are therefore "missing" from crime statistics. As a result, researchers and government agencies conduct victimization surveys to gather additional data on sexual abuse committed by women. While these methods complement official crime statistics, they too suffer from limitations such victims' unwillingness or inability to disclose their abuse. In addition, historically and contemporarily, underreporting is prevalent for sexual offenses compared to other crime types (Berzofsky, Krebs, Langton, & Smiley-McDonald, 2012). There is

also evidence that victim reporting of sexually based crimes has continued to decrease (Planty, Langton, Krebs, Berzofsky, & Smiley-McDonald, 2013). Taken as a whole, statistics that document female sexual offending are likely undercounts. That is not to say the number of females would equal or outnumber males who commit sex crimes, but the estimates of females who sexually offend are likely higher, to some extent, than what is recorded based on the available data.

Pertaining to official crime statistics, the UCR, a prominent source of crime statistics in the USA, collects data on rape arrests and arrests for other sexual offenses. Of the 10,471 arrests for rape, 1.6%, or 168 perpetrators, were female whereas 98.4%, or 10,303 perpetrators, were men (FBI, 2013). Of the 35,604 arrests made for other sex offenses, 2657 (7.5%) subjects were female and 32,947 (92.5%) were men (FBI, 2013). Although the UCR depicts low rates of female sexual offending in comparison to men, victims of female sexual offenders have been less likely to report their victimization to police, and law enforcement has been significantly less likely to make arrests in these cases (Angelides, 2008; Lawson, 1993; Williams & Bierie, 2015). Second, sex crimes by females are less likely to be recorded in arrest data even if they are detected. For example, until 2012, the UCR defined rape as a sex crime that involved a female penetrated by a penis using force. This specific definition leaves sex crimes by females disproportionately uncounted relative to male offenders because of female sexual offender's anatomy, their sexual assault behavior, and the gender of their victims (Bierie & Davis-Siegel, 2014).

It is no surprise, then, that research using self-report data from victims of sexual assault show substantially higher prevalence rates for female sexual offending (Black et al., 2011; Dube et al., 2005; Green, 1999). In particular, victim surveys tell a different story compared to official statistics about the number of females who sexually abuse. Green (1999) found that 6–15% of abused girls and 14–24% of abused boys were sexually abused by a female. Child abuse self-report studies have found somewhat similar statistics, reporting that 6% of women and 39% of men have experienced

child sexual abuse by a female perpetrator (Dube et al., 2005). According to the 2010 National Intimate Partner and Sexual Violence Survey (NISVS), a nationally representative survey of adults in the USA that measures sexual violence, intimate partner violence, and stalking, there is a substantial percentage of women and men who have experienced sexual assault by a female over the course of their lifetime. When estimating the lifetime prevalence of rape, females reported that 2% of their rapists were women (Black et al., 2011). For other types of sexual violence, female victims reported approximately 8% of their perpetrators were women (Black et al., 2011).

Also, according to the NISVS, men were more likely than women to report female perpetrators of sexual violence over the course of their lifetime. Approximately 7% of male rape victims reported female perpetrators (Black et al., 2011). Other types of sexual violence were more likely to be perpetrated by women against men: being made to penetrate someone else using force or threats of force (79.2%), sexual coercion using nonphysical pressure (e.g., threatening to end the relationship) that leads to penetration (83.6%), and unwanted sexual contact such as sexually fondling body parts (53.1%) (Black et al., 2011). There was also a high percentage of female perpetrators in noncontact sexual experiences, such as exhibitionism or masturbating in front of the victim. Approximately 38% of male respondents reported female perpetrators during these noncontact crimes.

In one of the most comprehensive prevalence studies to date, Cortoni, Babchishin, and Rat (2017) estimated that approximately 2–12% of sexual offenses are committed by women. By conducting a meta-analysis, they estimated this proportion of female sexual offenders using official crime data and victimization surveys from 12 countries. Crime statistics (i.e., those reported to police) produced a fixed-effect average of 2.2% of sexual offenders who were women and victimization surveys produced a fixed-effect average of 11.6% of sexual offenders who were women. Based on their estimates, they also concluded that sex offending among female juveniles is more common compared to sex offending among female

adults (Cortoni et al., 2017). In general, given various sources of data and differing methodologies used in prevalence studies, in combination with the underreporting of sexual crimes to official sources like the police, their meta-analysis showed that the proportion of females who sexually offend is higher than previously thought.

## Recidivism

While prevalence studies help us to better comprehend the number of women who sexually offend, recidivism studies help criminal justice and community actors, like treatment providers, assess the likelihood a particular offender will commit another sex crime after being adjudicated for a sexual offense. This is type of risk assessment can be valuable for policy makers and criminal justice actors as they address the propensity for women to repeatedly sexually offend after official detection by the criminal justice system (Sandler & Freeman, 2009). If research and assessment tools can help us better identify who is at a higher risk for reoffense, for example male or female sexual offenders, then different social controls may be put into place to stem opportunities for recidivism.

There are a limited number of studies addressing recidivism rates for female sexual offenders. The paucity of studies is attributable in large part to the difficulties obtaining a large enough sample size to conduct the necessary statistical analyses, particularly given that female sexual offenders seem to have very low rates of sexual recidivism (Cortoni & Hanson, 2005; Cortoni, Hanson, & Coache, 2010; Poels, 2007; Sandler & Freeman, 2009). Cortoni and Hanson (2005) used six data points, including published and unpublished research and official recidivism data, to gauge the level of recidivism for 380 women who committed violent and or sexual offenses and then went on to reoffend. Recidivism was tracked for an average 5 years. Within that time frame, they found approximately 1% of women recidivated with a sex crime. They also calculated recidivism for violent crimes and an overall percent for any type of recidivism.

Approximately 6% of female sexual offenders committed another violent offense and about 20% overall recidivated with any type of offense.

Sandler and Freeman (2009) assessed recidivism with a sample of 1466 females convicted of sexual offenses in New York State and investigated factors associated with sexual recidivism with this group of offenders. Unique to their analysis was that they tracked recidivism over three time periods: 1, 3, and 5 years. This type of method can help establish trends over time. Of the 1466 female sexual offenders, 2.2% were rearrested for another sex crime. As time passed, the risk for sexual recidivism increased although the increase was extremely small: 0.8% at 1 year, 1.3% at 3 years, and 1.8% at 5 years. It is important to note that follow-up times are from the date of conviction. Sandler and Freeman (2009) explain that due to the structure of the criminal history files they could not assess recidivism from time of release into the community. However, a large majority of their sample (about 72%) received probation, meaning their sentence was served within the community in lieu of incarceration. For those who sexually recidivated, what factors significantly predicted rearrest for a sexual offense? They found sexual recidivism was significantly associated with additional child victim convictions that occurred prior to the sexual assault conviction, additional misdemeanor convictions prior to the sexual assault conviction, and increased offender age (Sandler & Freeman, 2009). With their sample, certain demographic characteristics and criminal conviction history mattered in explaining women's propensity to sexually reoffend.

Because of the difficulty obtaining large sample sizes of FSOs, scholars have conducted meta-analyses to address female sexual offender recidivism rates. Cortoni et al. (2010) used this technique to assess recidivism for a sample of 2490 female sexual offenders who were tracked for an average of 6.5 years. Their study defined recidivism broadly: arrest, charged, convicted, or incarcerated for a new sexual offense. Approximately 3% of their sample recidivated sexually. Based on the limited number of studies that address recidivism for female sexual offenders, the overall finding is that their likelihood to

sexually recidivate is exceptionally low; within approximately 7 years between 1% and 3% of female sexual offenders will reoffend sexually.

## Typologies of Female Sexual Offenders: A Framework for Understanding Patterns

While prevalence data and recidivism data give us one layer of insight into females who sexually offend, sexual offending in general is a much more dynamic process than what is portrayed by crime statistics. It is not only about the number of women who sexually offend and the number of women who will sexually offend again after they are identified by authorities. Rather, it is the entirety of the sexual offense process that can help to us better understand the etiology of female sexual offending. Therefore, researchers have begun to create typologies—empirically driven ideal types based on qualitatively or quantitatively derived clusters of offenders who share the same or highly overlapping features. In addition to their ability to identify the causes and or motivations of females who sexually offend, typologies can help us better understand offense characteristics such as victimology (Sandler & Freeman, 2007). It is important to remind readers of the heterogeneity of the population of female sexual offenders. While typologies provide valuable information that can inform policy and practice, not all female sexual offenders will neatly fit into one of these identified clusters, or types.

Mathews, Matthews, and Speltz (1991) were among the earliest researchers to attempt to create a typology to better understand female sexual offenders. Various authors have stated that their typology is one of the more useful and most cited typologies (Nathan & Ward, 2002; Sandler & Freeman, 2007; Vandier & Kercher, 2004), and their efforts laid the foundation for future researchers. Based on data from a small clinical sample, Mathews and colleagues (1991) were able to qualitatively analyze extensive interview data that was gathered over the course of a year. Three main categories of female sexual offenders emerged based on crime characteristics, perceptions of victims, if

the offender had a male co-offender, and psychological characteristics: the teacher/lover, the predisposed offender, and the male-coerced offender.

The "teacher/lover" has a severe history of emotional, physical, and sexual abuse, has a strong likelihood of substance abuse, prefers male victims, but denies her abusive behavior is criminal due to her perception she is teaching her male victim(s) about sexuality and that the victim(s) desire the experience (Mathews et al., 1991). The "intergenerationally predisposed" offender suffers from addictive behaviors, low self-esteem, passivity, and intense anger, has a history of sexual abuse by family members and caretakers, prefers to sexually abuse young family members, and attributes her behavior to an attempt to achieve emotional intimacy (Mathews et al., 1991). The "male-coerced" offender has a history of childhood sexual abuse by male offenders and is described as dependent and nonassertive with very low self-esteem. In adulthood, the male-coerced offender maintains relationships with abusive men who sexually abuse her children; she participates in the abuse due to reasons such as fears her partner will leave her, or fear of physical abuse at the hands of her partner (Mathews et al., 1991). Scholars also have identified women who willingly participate in the abuse, the "male-accompanied" offender, who are motivated by anger and jealousy toward the victim (Mathews et al., 1991; Nathan & Ward, 2002).

Vandier and Kercher (2004) constructed six typologies with one of the largest sample sizes to date, 471 female sexual offenders in Texas. The "heterosexual nurturer," such as those in mentorship or caretaking roles, is, on average, 30 years of age. She only victimizes males, and her victims, on average, are about 12 years old. This cluster coincides with Mathews et al.'s (1991) teacher/lover offender. The "noncriminal homosexual offender" is, on average, 32 years of age, victimizes almost exclusively females with an average age of 13, is unlikely to have a criminal history, and is the least likely to commit sexual assault. The "female sexual predator" is, on average, 29 years of age, victimizes primarily males with an average age 11, and has a high likelihood to sexually recidivate. The "young adult child

exploiter" is, on average, 28 years of age, is most likely to commit sexual assault, and victimizes young children with an average age of seven, with whom she has had a prior relationship. This type of offender may reflect Mathews et al.'s (1991) predisposed offender. The final two types are adult offenders who victimize adults. Both offenders and victims have average ages in their 30s. The "homosexual criminal" has a high rate of arrests and commits crimes of "forcing behavior" (e.g., prostitution) possibly for financial gain (Vandier & Kercher, 2004). The "aggressive homosexual offender" likely has a preestablished relationship with her victim, who is also, on average, in their early 30s. She is the most likely to commit sexual assault.

Since these foundational studies, other scholars have used a variety of data sources to either test existing typologies or create new typologies. For instance, Sandler and Freeman (2007) tested Vandier and Kercher's (2004) typology using a sample of FSOs from New York State. They, too, found six distinct typologies, two of which overlapped with Vandier and Kercher's (2004) research: the heterosexual nurturers and young adult child exploiters. Wijkman et al. (2010) assessed a sample of FSOs from the Netherlands and identified four offender types. Their prototype rapist resembled Vandier and Kercher's (2004) female sexual predator (Wijkman et al., 2010). In addition, their prototype of "passive" mothers resembled Mathews et al.'s (1991) male-coerced offender and, to a lesser degree, the predisposed offender (Wijkman et al., 2010). While there exists some overlap among these studies, the diversity of clusters found using different samples of female sexual offenders highlights the heterogeneity of FSOs and the continuing work that needs to be done to understand their offending behavior.

## Pathways to Offending

In an attempt to move beyond typologies, groups of scholars have started to map offense processing characteristics of FSOs to formulate a temporal model that includes cognitive, behavioral, affective,

and contextual factors. Gannon et al. (2008) call their temporal model the "descriptive model of female sexual offending" (DMFSO). To develop the DMFSO, they recruited 22 women in England who had sexual offense convictions or strong sexual elements to their crimes. Their data consisted of general offense data, demographic data, and interview data. The interviews were conducted with the women in the form of what one might consider a life course interview pertaining to sexual offending: influencing factors in childhood and early adulthood, factors related to the pre-offense and offense period, and factors that occurred directly post-offense (Gannon et al., 2008). Using qualitative methodology, they created a temporal sequence that then spanned these background factors, the pre-offense period, and the offense and post-offense period.

Pertaining to background characteristics (Phase 1 of the DMFSO), the women either had positive or negative early family environments during childhood or adolescence; for example, parental neglect or family cohesion. Gannon et al. (2008) note that some of these negative early environments improved, while other positive environments deteriorated. All but five of the women reported experiencing sexual, physical, or emotional abuse during their childhood and adolescence. Approximately 50% experienced more than one type of abuse. Building the temporal sequence, Gannon et al. (2008) then assessed lifestyle outcomes in late adolescence and early adulthood. They found there was either a maladaptive lifestyle driven by deviant peers, childhood abuse, and antisocial cognitions about violent and sexual norms; or an adaptive lifestyle. Most women experienced vulnerabilities, such as poor coping styles, for example, alcohol or substance abuse, and poor social support. They also exhibited vulnerability through poor mental health and or personality traits such as aggressiveness and dependency. Vulnerability factors contributed to early adult lifestyles that Gannon et al. (2008) stress became risk factors for offense for many women later in the DMFSO. The final component of Phase 1 consists of early adulthood major life stressors. The vast majority, 20 women, experienced domestic abuse (physical,

emotional, or both). Some of their male partners also began grooming them during this phase to sexually offend.

The pre-offense period is Phase 2 of the DMFSO. Gannon et al. (2008) argue that due to the culmination of the background characteristics in Phase 1 many of the women were already at an elevated risk to sexually offend. Within this phase there are four stages that lead up to the offense phase: unstable lifestyle (typically 1 year to 6 months before the offense), goal establishment, distal planning, and proximal planning (planning directly before the offense). By this phase in the temporal model all the women in their study had an unstable lifestyle. It is within this time frame that the women began to create goals to offend and began distal planning. These stages—goal creation and distal planning—occurred simultaneously or occurred very closely together (Gannon et al., 2008). Goals for sexually offending included sexual gratification, intimacy, and "other" instrumental reasons such as revenge/humiliation or financial gain (Gannon et al., 2008). A small minority (three women) had no goals and offended out of extreme fear of their abusive partner.

During this phase, distal planning occurs in three different ways: *implicit planning* where "the individual engage[s] in a form of self-deception, subtly adjusting circumstances in a manner highly likely to increase their chances of physical and/or emotional contact with the victim"; *explicit planning* where women "explicitly set out to offend against their victims either sexually of nonsexually"; and *directed planning* where women are coerced to sexually offend by a male co-perpetrator (Gannon et al., 2008, p. 364). The last stage of Phase 2 is proximal planning or planning that happened immediately before the offense occurred. Gannon et al. (2008) found three dominant proximal planning strategies: *implicit disorganized*, or women who are most likely implicit planners and then become impulsive and disorganized immediately prior to the offense; *directed proximal*, or women who execute plans based on direction from a male co-offender; and *explicit precise*, or women who take part in group offenses where they typically

execute a distal explicit plan "with exact military precision" (p. 365) to humiliate their victim, to exact revenge on him or her, or for financial gain.

The last phase, Phase 3, of the DMFSO is the offense and post-offense period consisting of the offense approach, the offense behavior, the victim's response, the offense consequences, and the offense outcome. There are four main offense approaches: maternal approach, maternal avoidant approach, aggressive approach, and operationalized approach. According to Gannon et al. (2008), *maternal approaches* are used by women who are coercive, nonaggressive, and do not intend to offend but take no additional actions to avoid offending. Women who are *maternal avoidant* are also coercive and nonaggressive, but want to avoid offending. It is within this approach that women are often coerced by an abusive male co-offender (Gannon et al., 2008). The aggressive approach, as the name implies, is comprised of women who take an "aggressive stance toward their victim" (Gannon et al., 2008, p. 366). The final approach is the *operationalized approach*. Sexual assault is used to accomplish certain goals, such as financial gain through sex trafficking (Gannon et al., 2008).

Based on their data, they found that victims respond to the sexual assault in three ways: *engaged*, *submissive*, and *resistant*. Engaged victims "[react] positively to the offense behaviors"; submissive victims "[tend] not to react strongly during the offense, interacting minimally with the offender"; and the resistant victims "[ask] the offender to stop, [cry], or [show] extreme discomfort throughout the sexual offense" (Gannon et al., 2008, p. 366). Post-sexual offense there are offense consequences and offense outcomes. Offense consequences are the offender's response to the offense, including affective responses like pleasure or shame. They also include cognitive responses, such as thinking about the harm caused to the victim, and behavioral responses, such as avoiding detection and (for some) suicide attempts. Offense outcomes, the final stage in Phase 3, and pertains to how the sexual abuse was resolved (Gannon et al., 2008). Here, women either self-disclosed to the police or are arrested via a police investigation.

While Gannon et al.'s (2008) study detailed the DMFSO itself, follow-up research conducted by Gannon et al. (2014) examined the prevalence of each pathway using the same sample of 22 UK women. They identified nine women as explicit approach offenders, five women as directed avoidant offenders, and four women as implicit disorganized offenders. Due to lack of information, the remaining four women were not assigned a pathway. The DMFSO since has been applied to a sample of North American women with considerable success, although a small minority (six women out of 36) could not be classified into one of the three pathways (Gannon et al., 2014). In addition, some pathways are more easily identifiable, specifically the directed coerced pathway, than the other two pathways, the explicit approach and the implicit disorganized pathway (Gannon et al., 2014).

Overall, the DMFSO is the first temporal model of female-perpetrated sexual abuse and it has had success classifying FSOs based on life course pathways that influence their sexual offending behavior. Based on this and other research that assesses childhood experiences of FSOs, one can see that it is within these early years, childhood and early adolescence, that a variety of cognitive, behavioral, affective, and contextual factors are already influencing women's trajectory and risk to sexually offend later in adulthood. The DMFSO clearly delineates how these cognitive, behavioral, affective, and contextual factors influence and shape their risk of sexually offending, the sexual assault behavior itself, and outcomes or consequences of their criminal actions post-offense.

## Group Composition and Offending Behaviors

As suggested by typology research and the DMFSO, women sexually offend by themselves, but there is ample evidence across various data sources that women co-offend, or have a male accomplice, and that they offend with their male co-perpetrator either by force/coercion or by their own volition (Gannon et al., 2008, 2010, 2014;

Mathews et al., 1991; Nathan & Ward, 2002; Williams & Bierie, 2015). While there has long been a recognition of female co-offending, contemporarily researchers also have identified subsets of women who offend in larger groups. This section gives an overview of the different offending dynamics, co-offending pairs and multiple perpetrator groups, and associated characteristics that have been identified in the literature.

## Co-Offending

Co-offending, or women who sexually abuse victims with a man, is common among female sexual offenders. According to Williams and Bierie (2015), out of 43,018 sexual assault incidents involving women, approximately 62% involved a solo female sexual offender and about 33% involved a male co-offender. On the other hand, out of the 773,118 sexual assault incidents involving men, approximately 88% of those incidents involved a solo male offender and men co-offended with a woman in only about 2% of the incidents (Williams & Bierie, 2015). Therefore, based on their results, it is evident that women are much more likely to have a male co-offender than it is for a man to have a female co-offender.

Based on the data source, it is impossible to ascertain whether the women were forced by men to take part in the sexual abuse, or if they were willing participants. Qualitative data typically provide the best evidence to distinguish between these two categories of offenders. One of the earliest works distinguishing between these co-offending dynamics was Mathews and colleagues (1991). In their research, male-coerced offenders were forced or coerced by male offenders to sexually fondle their victims, usually their daughters (Mathews et al., 1991). Coercion could take many forms, such as grooming the woman to sexually offend by breaking down sexual norms; here, the woman resists at first but then participates in the sexual assaults (Gannon et al., 2008). Coercion can also take the form of threats and abuse by the male perpetrator (Mathews et al., 1991). The other category of women is male-accompanied (i.e., no coercion to participate) for sexual gratification or

due to anger/jealously (Mathews et al., 1991). The male-coerced offender and the male-accompanied offender are still identified in research today. For example, Gannon et al. (2008) found that 50% of their sample offended with a man and that 23% of those women were coerced and 27% were willing participants in the sexual abuse.

To date, five studies have compared solo and co-offending female sexual offenders regarding their offending behavior. Based on this research, there are some overarching patterns in offending behavior based on group dynamics. Some studies indicate co-offenders are more likely to have multiple victims (Vandiver, 2006; Wijkman et al., 2010). As previously highlighted, solo female sexual offenders seem to lack a strong gender preference for their victims (Johansson-Love & Fremouw, 2009). When studies compare solo female sexual offenders to co-offending pairs, findings indicate solo offenders are more likely to choose male victims (Muskens, Bogaerts, van Casteren, & Labrijn, 2011; Vandiver, 2006; Wijkman et al., 2010) and that co-offending pairs are more likely to victimize females (Budd et al., 2017; Vandiver, 2006; Wijkman et al., 2010). This co-offending victim preference may be in part due to male sexual offender's victim preference—girls (Freeman & Sandler, 2008; Williams & Bierie, 2015). Based on the evidence, co-offending pairs are also more likely than solo female sexual offenders to sexually assault victims that are known to them—dependent children and intrafamilial family members (Budd et al., 2017; Muskens et al., 2011; Vandiver, 2006; Wijkman et al., 2010). This may be partially attibutable to the ability of male offenders to gain access to children and other family members through their female partners. As noted by Gannon et al. (2008, 2010), some females are groomed by their abusive male partners to offend against their own children.

## Multiple Perpetrator Groups

Recent studies have reported varying percentages of female sexual offenders who offend within larger groups, and those who extend beyond

co-offending. For example, Gannon et al. (2008) found that 23% of the women in their study offended in larger group contexts. A recent investigation of sexual assault incidents by Budd et al. (2017), however, revealed that 9% of the incidents involved women offending in larger group contexts. Examining multiple perpetrator groups, defined as groups of three of more offenders with at least one female, is a newer line of investigation. There is still much to learn about these multiple perpetrator group offending dynamics.

Extant research tells us that within these larger offending groups there is a greater likelihood of stranger victimization, a greater amount of injury to the victim, and more diversity of offending (Budd, 2017; Lambine, 2013; Morgan, Brittain, & Welch, 2012). This means sexual assaults are more likely to occur in conjunction with other crimes, especially robbery (Budd, 2017). As noted by Kelly (2013), women may participate in these group sexual assaults as bids for acceptance and power among men. These larger group offenses may also be a way for women to extract revenge, express jealousy, or get financial rewards (Gannon et al., 2008). Overall, though, more research is needed to better understand these large group sexual assaults not only in terms of offending behavior but also in terms of explanations as to why women participate in multiple perpetrator groups.

## Criminal Justice Responses to Female Sexual Offenders

As more attention has been placed on female sexual offenders, scholars have begun to explore possible sentencing discrepancies between female and male sexual offenders. Male and female sexual offenders are subjected to the same laws, such as sentencing schemas for sexual offenses, and are subjected to the same post-conviction and/or post-incarceration social controls. In addition, although public opinion research on sex offender specific legislation has focused on "sex offenders" as whole, a very recent line of research has started to investigate how the public reacts to these laws and their application to female sexual offenders.

Pertaining to criminal justice sanctions, there is evidence that FSOs are significantly more likely to serve their sentence in the community rather than in a correctional institution. For example, Ferguson and Meehan's (2005) research on convicted FSOs in Florida revealed that 64% of their sample was placed on parole/probation after conviction and 36% were incarcerated. This makes sense in light of prior findings on arrest, convictions, and sentencing: Women compared to men are less likely to get arrested, less likely to be convicted, and more likely to serve shorter sentences than men (Blackwell, Holleran, & Finn, 2008; Rodriguez, Curry, & Lee, 2006; Sarnikar, Sorensen, & Oaxaca, 2007). With that said, in general, criminal justice sanctions are becoming more punitive for individuals convicted of sex crimes, especially regarding the movement to incarcerate and have offenders serve longer sentences (Center for Sex Offender Management, 2001; Cohen & Jeglic, 2007). Indeed, the public seems to support these sentencing changes (Levenson, Brannon, Fortney, & Baker, 2007). One has to question, though, whether there are differences in criminal justice sanctions for male and female sexual offenders given that sex crimes are viewed as one of the most heinous crimes in contemporary society.

In one of the first studies on sentencing disparity, Sandler and Freeman (2011) analyzed conviction and sentencing data from 1986–2005 using a sample of 138,000 offenders arrested for a sexual offense in New York State. To compare male and female sexual offenders and criminal justice sanctions they systematically tracked three different arrest outcomes: conviction for a sexual offense, conviction for a nonsexual offense, and no conviction. In addition, for those convicted, they assessed whether female sexual offenders were given more lenient sentences than their male counterparts. Overall, they found there was no difference between men and women and their likelihood for a sexual conviction (Sandler & Freeman, 2011). But gender did play a significant role in sentencing outcomes. In New York State, female sexual offenders were more likely to be sentenced to conditional release or a fine/unconditional release compared to men who

were sentenced to incarceration. Findings by Embry and Lyons (2012) support the hypothesis that female sexual offenders are treated more leniently when adjudicated. Using National Corrections Reporting Data from 1994 to 2004, they found male sexual offenders were more likely to receive longer sentences for sexual offenses than female sexual offenders for specific types of sex crimes: rape, child sexual assault, and forcible sodomy. There were no significant differences for sentencing for sexual assault and statutory rape (Embry & Lyons, 2012).

These studies provide consistent evidence that female sexual offenders seem to be treated more leniently compared to male sexual offenders within the criminal justice system. This appears true even in light of trends that show an increasing use of incarceration and longer sentences for sex crimes. Some researchers posit these lenient patterns may be an extension of the gender-based "chivalry hypothesis," that women are viewed as less culpable and that they should not be held to the same standards as men (Embry & Lyons, 2012; Sandler & Freeman, 2011). In addition, those in charge of making discretionary sentencing decisions, such as prosecutors and judges, may not view female sexual offenders as an imminent threat given their low recidivism rates (Sandler & Freeman, 2011). Whether these patterns are related to gendered narratives about sexual offending, evidence-based practices in sentencing based on research, or other legal or extralegal factors, remains to be seen.

In short, more research is needed to better understand the nuances of arrests, convictions, and sentencing of female sexual offenders. What other sociodemographic characteristics beyond gender influence arrest, convictions, and sentencing of female sexual offenders? Court actors may also shed light on these discrepancies in sentencing schemas by delineating their use of legal and extralegal factors. In addition, is sentencing female sexual offenders to a term of incarceration decreasing their already low rates of recidivism? Other researchers have assessed sentence length, time served, and recidivism with male sexual offenders (Budd & Desmond, 2014), but this has yet to be investigated with FSOs. Addressing

sentencing philosophies that are linked to convicting and sentencing female sexual offenders, such as retribution, incapacitation, or rehabilitation, may also shed light on this phenomenon.

## Sex Offender Legislation, Public Perceptions, and Female Sexual Offenders

In addition to convicting and sentencing sexual offenders within the court system, there are other methods of community-based social controls for individuals convicted of sex crimes. Sex offender-specific legislation calls to arm various branches of the criminal justice system, such as police officers, probation officers, and parole officers, to manage convicted sex offenders within communities using legal tools such as sex offender registration and community notification and residence restrictions. Given that research on female sexual offenders as a whole is in its infancy, research that gauges public opinion about female sexual offenders and about the application of sex offender-specific legislation to FSOs is virtually nonexistent. This is troubling given the fact that scholars call for a gender-specific approach to FSOs, which also includes the formation of policy.

In the first study of its kind, Cain et al. (2015) used public opinion data from the 2012 Nebraska Annual Social Indicators Survey to assess whether community members would want to be notified if a female sexual offender moved into their neighborhood. In addition, they inquired whether individuals would take preventative actions against female sexual offenders if these offenders moved into their neighborhood. This study is unique in that while it assesses public perceptions of law and the public's corresponding protective behaviors, it also brings to the forefront public perceptions about an offending population that has long been denied existence.

Would individuals want to know if an FSO moved into their neighborhood? The majority of the respondents, approximately 91%, said they would want to be notified (Cain et al., 2015). In addition, about 56% of respondents said they would take some type of preventative action if a

female sexual offender lived in their neighborhood, although about 27% were not sure if they would take preventative action and about 18% said that they would not take preventative action (Cain et al., 2015). Women and those with minor children living in the home were found to be significantly associated with preventative action. These findings make sense in light of other studies that have gauged public opinion on sex offenders in general: women typically are more supportive of sex offender community protection policies and parents, more so than other groups, are supportive of these laws (Levenson et al., 2007; Mancini, Shields, Mears, & Beaver, 2010).

While the findings from this study should be viewed cautiously, as it only addresses public opinion in one state about FSO crime seriousness, the application of laws to FSOs, and community members' behaviors towards FSOs, it provides a foundational building block for additional research. Given that research has distinguished differences in offending patterns for male sexual offenders and FSOs, especially the low risk of recidivism for FSOs, researchers should continue to address whether law and public policy pertaining to sexual offenders should be applied in the same way to all groups of sexual offenders. In addition, given the public's overwhelming support for sex offender legislation, which is argued to be driven by fear and myths about sex offenders (Levenson et al., 2007; Quinn, Forsyth, & Mullen-Quinn, 2004), we have to question whether such studies should be used to inform sex offender public policy. As with male sex offenders, there is a need to uncover what myths and misperceptions may be driving public opinion and public (re)actions toward female sexual offenders.

## Conclusion

There is still a cultural resistance to recognizing that women are perpetrators of sexual abuse. While the knowledge we have today, and especially produced within the past 5–10 years, has advanced what we know about female sexual offenders, there is still a lot we do not know.

This review has underscored areas that need further advancement, such as the need to continue to understand FSO behavior and the processes that lead up to their sexual offense, the commission of their sexual offense, and their post-offense characteristics. There is a need to better understand FSO group compositions; for example, investigations of FSOs that offend within larger groups composed of men, women, or both. In addition, there is also limited research on criminal justice sanctions for FSOs including public perceptions about females who sexually offend, what drives these perceptions, and the application of public policy to FSOs. Given the burgeoning interest in female sexual offending and a generation of scholars that are researching this social problem, we will continue to see advancements in our understanding of FSOs, their behaviors, and the social and legal responses to this group of offenders.

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# Young People Displaying Problematic Sexual Behavior: The Research and Their Words

Valerie M. Sheehan

I've ruined my life. I'm not going to do that again.
I just wish it never happened ….
It makes me feel like a pedophile, and I'm not.
(Jamie,[1] age 13)

While the examination of young people who engage in problematic sexual behavior (PSB) goes back over half a century (Finkelhor, Ormrod, & Chaffin, 2009), our understanding of these youth has changed significantly in the past few decades (Lussier & Blokland, 2014). "Jamie" sexually abused his two female cousins, aged 9 and 10, over a period of 6 months when he was 12 years old. The abuse included kissing, attempted penetration, making the girls perform oral sex on him, and touching and licking their genital area, as well as violent coercive behaviors such as slapping, kicking, and choking. He claims he is not a pedophile, and according to current diagnostic criteria (American Psychiatric Association, 2013), he is correct. Jamie is a 13-year-old boy with a pleasant smile, good communication skills, and a cheeky sense of humor. Alongside his gregarious nature and bright intellect, however, Jamie has a serious problem.

While the majority of the literature emphasizes the heterogeneity of young people who engage in PSB (Bourke & Donohue, 1996; Prentky, Righthand, & Lamade, 2016; Ryan, 2016; Worling, 2012), Jamie fits the profile of the "typical" juvenile sex offender. That is, he is a male aged between 13 and 15 years and he primarily carried out sexual fondling of prepubescent victims (Rich, 2011). The reality, however, is that children of almost any age and of both genders can display PSB.

The number of offenses and prevalence of PSB perpetrated by young people is difficult to determine (Murphy, Page, & Hoberman, 2016), and the reports and reporting methods vary. Data from the 2004 National Institutional Based Reporting System examined by Finkelhor et al. (2009) tell us young people accounted for 35.6% of sex offenses in the USA, and between 2013 and 2014, the arrests for rape perpetrated by juveniles increased by 5.5% to 2432 (FBI, 2014). Between 2009 and 2010, over 200,000 sexual offenses committed by children were recorded in the UK (Cooper & Roe, 2012). In Ireland there has been a fourfold increase in sex crimes committed by juveniles between 2009 and 2012, despite a concurrent drop in other types of offenses (O'Keeffe, 2014). Between 2012 and 2013, there were 6004 sexual assault offenses recorded in Australia, and juveniles between 10 and 17 years of age were responsible for 18% of these crimes. Thus, while sexual

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[1] All young people quoted in this chapter are part of a longitudinal research project running in accordance with British Psychological Society guidelines. All names and identifiable information have been changed throughout this chapter.

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offending by juveniles comprises a small proportion (2%) of their overall offending, they nonetheless are responsible for a high percentage of overall sexual offending, and the author cautions that such offenses frequently escape detection, are reported/recorded differently, and often avoid prosecution (Warner & Bartels, 2015).

## Problematic Sexual Behavior (PSB)

The terms used to describe young people who engage in sexual behavior outside the typical age-appropriate sphere of activity vary considerably. Different jurisdictions, organizations and researchers apply various classifications (Rich, 2011). The nomenclature ranges from "harmful sexual behaviors" to "juvenile sex offenders," and there can be ambiguity as to what exactly is being discussed, and what has occurred. The use of the phrase "Problematic Sexual Behavior" (PSB) in this chapter covers a range of sexual behaviors and includes speech, gestures, contact and noncontact abuse of others (adults, peers and children) where coercion or manipulation of a vulnerable individual exists. PSB also covers the concept of sexual self-endangerment, where young people engage in sexual behaviors that put them at risk; for example, seeking out adults for sex, or advertising online as available for sex. Sexual self-endangerment does not preclude being a risk to others. While Vizard (2002) highlights that all terms used in this context are open to criticism, the term PSB is perhaps less pejorative than "juvenile sex offender." Terms that refer to children as sex offenders, while often technically accurate, may label a child and diminish the required focus on the *problematic* nature of the behaviors; that is, as one of many aspects of a young person that needs understanding and intervention. Although PSB is the primary term used in this chapter, other terminology will be used when detailing research.

## Etiology

What brought Jamie to the place where he knowingly, and in a calculated fashion, sexually abused his cousins? There is no tested empirical model to account for why some young people are motivated to engage in PSB (Ricks & DiClemente, 2015). More knowledge is needed about the likely complex etiology and treatment needs of adolescent sex offenders (Leroux, Pullman, Motayne, & Seto, 2014; Ricks & DiClemente, 2015). While ostensibly demonstrating many similar features as adult sex offenders, young people displaying PSB need to be viewed as different, and their cognitive, psychological, and sexual trajectories must be seen in an appropriate developmental context (Letourneau & Miner, 2005; Rich, 2011; Worling, 2012). Increasingly, studies are moving away from characterizing sexual offending in young people as a subset of general delinquency (Glowacz & Born, 2013; Seto & Lalumière, 2010), and instead have begun to view each young person as an individual with his or her own specific cluster of influencing factors (Rich, 2011; Ryan, 2016).

It has been suggested that children who display PSB before the age of 10 are more likely to have experienced higher rates of maltreatment, poor temperament, aggression, hyperactivity, educational difficulties, neuropsychological deficits, and mental health problems (McCrory, Hickey, Farmer, & Vizard, 2008; Vizard, Hickey, French, & McCrory, 2007). One study that looked at 139 young people who had displayed PSB and experienced abuse themselves suggested that the most harm was done in cases where the abuse happened between the ages of 3 and 7 years. Abuse that occurred in early childhood placed the youth at greater risk for engaging in sexually abusive behavior later in life (Grabell & Knight, 2009).

Early research postulated that learned behavior accounted for PSB (Ryan, 2016). However, as the understanding has increased, it seems there are likely multiple contributory factors that influence the development of PSB (Farmer, 2013).

Increasingly, there is a move from single-factor theories to integrative pluralism (Ward, 2014), in what has been described as multifactored, complex, and developmentally organized (Burkhart & Cook, 2010).

While not minimizing the significance of personal agency, recent research has focused on genetic influence and brain development as components of the etiological understanding of those who engage in PSB (Ward & Beech, 2006). It is known that children and young people respond differently to life stressors (Kim-Cohen, Moffitt, Caspi, & Taylor, 2004; Masten, 2001; Morris, Silk, Steinberg, Myers, & Robinson, 2007; Rutter, 2007). The concept of epigenesis, where Gene × Environment × Development combine in the development of the individual (Blair & Raver, 2012; Ellis & Bjorklund, 2012; Harden, 2014), is a model that provides a greater understanding of the child as a whole where PSB is an issue. Extreme or chronic abuse in childhood appear to have the potential to cause fundamental changes to the structure of the developing brain, a process that can adversely impact a child's ability to engage optimally with the world (Ward & Beech, 2006). When faced with a matrix of adversity (McCrory, 2011), it is not surprising that children and young people act out in atypical ways. As Freese (2008, p. 4) states, "Available evidence sustains the *upshot* that genetic differences matter pervasively for how individual biographies unfold." Increasingly, research is looking at how genes, gender, and the environment mediate the effects of early life adverse experiences (Copeland & Gorey, 2012).

Specific factors have been identified as increasing the risk of developing PSB. These include sexual abuse history, exposure to sexual violence, other abuse or neglect, social isolation, exposure to sex or pornography, atypical sexual interests, anxiety, and low self-esteem (Seto & Lalumière, 2010). Family problems, learning difficulties, and poor sexual boundaries also have been noted as relevant (McCrory, 2011; Vizard et al., 2007).

A history of childhood sexual abuse has not been found to be an absolute in instances where young people display PSB (Bonner, Walker, & Berliner, 1999; Merrick, Litrownik, Everson, & Cox, 2008; Silovsky & Niec, 2002). However, research has repeatedly shown that children who experience sexual abuse are more likely to display PSB compared with those who have not (Kendall-Tackett, Williams, & Finkelhor, 1993; McCuish, Cale, & Corrado, 2017; Putnam, 2003). The PSB displayed by children often can mirror their own abuse experiences in terms of age, gender, and type of abusive perpetrated, suggesting that they may reenact their own abuse experience and/or a learned behavior (Burton, 2008; Veniziano, Veniziano, & LeGrand, 2000). Nonetheless, the experience of sexual abuse as a child cannot be seen in isolation or as a trigger or link to subsequent perpetration of PSB; rather, it must be viewed in conjunction with other developmental issues (Leversee, n.d.). While other studies acknowledge the possible relevance of childhood sexual abuse, they also highlight the significance of other negative early life experiences (Cavanaugh, Pimenthal, & Prentky, 2008; Knight & Sims-Knight, 2004; Leibowitz, Burton, & Howard, 2012). Indeed, Skuse et al. (2000) suggest that experience of sexual abuse in childhood only becomes a significant risk factor when other deleterious life experiences coexist.

Attachment difficulties have been found to be present in many young people displaying PSB (Creeden, 2013; Grady, Levenson, & Bolder, 2016). Damaged or interrupted attachment also may have an indirect effect on young people who carry out sexual abuse; for example, issues such as interpersonal inadequacy were found to have a deleterious impact on peer relationships (Miner, Romine, Berg, & Knight, 2014). While researchers do not suggest that attachment disruption is causal with respect to PSB, it nonetheless is relevant to understanding the development of these behaviors (Rich, 2007).

Given the ubiquitous nature of devices capable of accessing the Internet, the influence of exposure to pornography (online or offline) on

PSB has become increasingly relevant. More recent research into the impact of pornography found that young people who displayed PSB were more likely to have been exposed to such material before and after the age of 10 than young people who did not (Burton, Leibowitz, & Howard, 2010). Results from a longitudinal study on young people exposed to violent X-rated material over a range of media reported a sixfold increase in the likelihood of engaging in sexually abusive behavior (Ybarra, Mitchell, Hamburger, Diener-West, & Leaf, 2011). Interestingly, in terms of exploring explanations for PSB, a meta-analysis of 59 independent studies highlighted the limited research focus on atypical sexual interests (Seto & Lalumière, 2010). The authors of the meta-analysis recommended that future research examine the role of exposure to sexual violence and materials as well as atypical sexual interests. Such studies are likely to help form a greater understanding of the etiology of young people displaying PSB, as one navigates what appear to be their various developmental pathways, unique characteristics and environmental stressors (Riser, Pegram, & Farley, 2013).

## Recidivism

Many meta-analyses demonstrate low rates of sexual recidivism by juvenile offenders (Caldwell, 2010; Carpentier, Silovsky, & Chaffin, 2006; Reitzel & Carbonell, 2006). It has been suggested, in fact, that for many youth their initial sex crime may be the beginning and end of their offending, earning them the title "*dead-end* delinquents" (Blokland & Van Wijk, 2008). Youth who commit sexual offenses have been found to have a lower general criminal history than nonsexual offenders (Seto & Lalumière, 2010). In an analysis of 63 studies with a combined sample 11,219 young males, a rate of 7.1% for new sexual offenses was demonstrated during an average follow-up period of 59 months (Caldwell, 2010). Interestingly, this research also found higher monthly recidivism rates amongst young people than amongst adult sex offenders over a short timeframe. It was speculated that

young people may be less adept at hiding their offending behavior or—more likely—that juvenile risk is highest in the period immediately following their last offense. Similar recidivism results (7.4%) were found over a 59-month follow-up in nine studies of young people who received intervention (Reitzel & Carbonell, 2006). A broader range of 2–10% recidivism was found in a meta-analysis of studies with 10-year follow-ups (Carpentier et al., 2006). However, it also has been highlighted that due to difficulty in detection and prosecution, the rates of sexual offending are being underestimated (Ryan, 2016; Vizard, 2013).

The importance of identifying those who are most likely to reoffend is an essential child protection task, and one that also informs intervention and ensures offenders who are unlikely to reoffend are afforded this recognition (Christiansen & Vincent, 2013). For many young people displaying PSB, for example, their PSB may be a transient, experimental, age-defined behavior that does not persist (Prentky et al., 2016). It is important that public fear and lack of understanding does not elicit an overreaction and compound the problem. For example, questions have been raised about the effectiveness of registration for young people who sexually offend, as well as concerns about possibly unnecessary or unduly intensive intervention that may be counterproductive for some (Batastini, Hunt, Present-Koller, & DeMatteo, 2011; Caldwell & Dickinson, 2009; Garfinkle, 2003; Masson, Balfe, Hackett, & Phillips, 2012). The effectiveness of incarceration also has been examined, and the evocative title of one such work, "Victims Behind Bars," highlights the importance of remembering that a significant number of these youth are likely to be survivors of childhood trauma (Dierkhising, Lane, & Natsuaki, 2014).

In terms of the progression of such behavior into adulthood, one study found that juvenile sex offender status increased the likelihood of becoming an adult sex offender (Lussier & Blokland, 2014). In their study of 87,528 male adults who had convictions as children, 0.5% of those without a sexual conviction went on to commit an adult sexual offense, whereas 3.0% of

juvenile sex offenders became adult sex offenders. However, Lussier and Blockland highlighted that the majority of juvenile sex offenders did not progress beyond adolescence with sexual offending and were accordingly termed "adolescent-limited" offenders (Lussier & Blokland, 2014). A full 95% of their juvenile sex offender cohort fell into this category until the age of 23.

## Girls Displaying PSB

Very little is known about the development of PSB in females (Kubik, Hecker, & Righthand, 2003; Masson, Hackett, Phillips, & Balfe, 2015; Masson et al., 2012; Worling, 2013). While the concept of a young male sexually abusing another child or adult is difficult to comprehend, to conceive that a female child would engage in such behavior is perhaps even more counterintuitive, and it can be challenging to put aside more comfortable norms and face uncomfortable truths. On the spectrum of sexual abuse offenses, it has been referred to as a "taboo" (McCartan, Law, Murphy, & Bailey, 2011), with society viewing females as sexually benign and nurturing (Denov, 2003). Therefore, perhaps unsurprisingly, estimates of the prevalence sexual offenses committed by female children equate to 5–7% (Finkelhor et al., 2009; Matsuda, Rasmussen, & Dibble, 1989). However, the reports of such behavior are likely underestimated (Långström, 2002), and law enforcement do not see the true representation of female children who perpetrate sexual offenses (Slotboom, Hendriks, & Verbruggen, 2011). What is apparent is there is no evidence to suggest offenses by girls are any different than those committed by boys; further, when they offend, their PSB is denied, minimized, or not reported to professionals (McCartan et al., 2011).

An interesting research question is how female youth with PSB differ from their male counterparts. Extant research suggests the two groups are similar on issues such as psychosocial and criminal history, antisocial behavior, level of denial, and the specifics of the offending behavior (Kubik et al., 2003). The abuse experienced by female youth, however, was found to have been more intense and extensive than abuse experienced by males. An earlier study had similar findings in terms of frequency and magnitude of offending behavior compared to those of their male counterparts (Mathews, Hunter, & Vuz, 1997). While the existing research suggests girls engaging in PSB have been victims of childhood sexual abuse, the findings vary, ranging from 37% (Wijkman, Bijleveld, & Hendriks, 2014) to 50% (Fehrenbach & Monastersky, 1988) to 87.1% (McCartan et al., 2011). With regard to early trauma, studies have found that physical abuse, general neglect, and exposure to sexual behavior/material are significant factors experienced by girls engaging in PSB (Mathews et al., 1997; van der Put, van Vugt, Stams, & Hendriks, 2014; Vizard et al., 2007; Wijkman et al., 2014).

One of the impediments to understanding PSB in female youth is the low statistical base rates for detecting these behaviors. In one study of 258 delinquent girls who were referred to assessment and treatment services, 20.8% were found to have engaged in sexually inappropriate sexual behavior, with 12% ($n = 31$) carrying out sexual abuse per se (McCartan et al., 2011). Of these, 71% committed rape or indecent assault ($n = 22$), 19.4% engaged in indecent exposure ($n = 6$) and another 19.4% caused or incited a child to engage in sexual behavior. However, with respect to those in their cohort who had committed sexual offenses, charges were brought in only five instances (16%), and one case was ultimately dropped (3%).

Similarities also have been found between male and female juvenile sex offenders with respect to victim choice. In a study by Masson et al. (2012), females perpetrated crimes against family members in 29% ($n = 7$) of the cases studied, 50% ($n = 12$) abused victims outside the family, and 21% ($n = 5$) targeted both categories of victim. The results for males were similar, at 25%, 53%, and 22%, respectively.

With regard to victim selection, Masson and colleagues emphasized that victims were known to their male and female offenders in the majority of instances. Likewise, the vast majority (90%) of the victims in a study by McCartan et al. (2011) were known to their abuser before an offense was committed. They also found that

84% had perpetrated the offenses on their own. Their observation is at odds with more recent research which indicates female children co-offended in 60% of cases, and in 95% of these crimes the co-offender was male (Wijkman et al., 2014). This finding supports previous research (e.g., Finkelhor et al., 2009).

While there are overlaps in terms of early life experiences and in the presentation of PSB, Robinson (2005) suggests professionals working with girls should have a comprehensive understanding of gender-specific developmental differences (Robinson, 2005), along with additional knowledge on the issues of victimization and trauma (Masson et al., 2012). However, one needs to be mindful that young males may be less inclined than females to disclose their own abuse experiences, and thus caution is necessary before professionals assume their experiences have truly been less severe.

## Assessment and Intervention

### Assessment

Although our conceptual understanding of the underlying dynamics of juvenile PSB is in its infancy (relatively speaking), we know this is a diverse group with complex and varied life histories, motivations and abuse experiences (Hackett, Phillips, Masson, & Balfe, 2013). Accordingly, an assessment must view the young person as a whole person, beyond and below the presenting PSB (Rich, 2011). Professionals must recognize that a "one-size-fits-all" approach is insufficient (Parks, 2007). It is essential that those undertaking an assessment are experienced and familiar with the research and knowledge relating to PSB (Hunter, 2010; Rich, 2011; Ryan, 2016; Vizard, 2013). As with other assessments and interventions, the likelihood of harnessing a young person is largely reliant on the skill and qualities of the facilitators (Baim & Guthrie, 2014).

An assessment should not exclusively focus on the PSB, despite the fact that may be uppermost in the minds of professionals and family, alike. Indeed, such limited assessments ultimately will be of little practical use. One cannot gain an under-

standing of a young person when the focus is exclusively on his or her deficits (Worling, 2013). Rather, a comprehensive assessment of a young person will include their positive traits, skills, and areas of strength (Hackett, 2006; Rich, 2011; Wylie & Griffin, 2013). While research highlights the similarities amongst young people displaying PSB, it is important to see young people as individuals with their own subtleties of behavior, emotions, and thoughts (Worling & Langton, 2012).

Effective communication is a core component when working with this cohort. Difficulties in truly comprehending what others mean have been linked with early life adversity and stressors (Noll et al., 2010). Accordingly, although a young person may nod and appear to acknowledge and understand the elements of the assessment, this interpretation needs thorough checking. Problems with understanding others (receptive language) or expressing thoughts and feelings fully (expressive language) can be covered adeptly by young people who have developed strategies to convey comprehension, when in truth they are not clear what is expected of them or what and how they need to share (Fontes & Plummer, 2010).

The assessment of young people who display PSB serves a number of purposes (Rich, 2015) beyond the prediction of future harm. This is a considerable shift from when risk assessment was as narrow as the term and when the goal was to predict risk. Certainly a primary function is to understand the likelihood and nature of future risk. However, additional aims exist. A worthwhile and comprehensive risk assessment seeks to understand the young person, their world and how they think, feel and behave in various circumstances. The assessment should inform child protection by addressing specifics of intervention, advice for families and carers, and ideally the work and support being done with victims. When victims remain unknown, or knowledge of the extent of the abuse is limited, the help and therapy they receive is also curtailed (Bourke et al., 2015).

The merits and limitations of both actuarial and clinical approaches to risk assessment are widely debated (Abulafia, Bukshizki, & Cohen, 2015). The actuarial assessment model is based upon statistical comparison between the behavior and char-

acteristics of the young person and that of known repeat offenders. The Juvenile Sexual Offense Recidivism Risk Assessment Tool-II (JSORRAT-II) is the only actuarial assessment instrument currently in existence for young people who have perpetrated sexual offenses. It measures only static factors and has been validated for use in Iowa and Utah, where it originated (Rich, 2015). While static risk factors are relevant to the assessment process, it is the dynamic factors that can be changed and, in turn, deserve special focus (Beggs & Grace, 2011).

Aside from an actuarial approach, there is a range of risk assessment instruments for young people designed to assist with assessment. Two of the most commonly used are the Juvenile Sex Offender Assessment Protocol-II (J-SOAP-II) and the Estimate of Risk of Adolescent Sexual Offense Recidivism (ERASOR). Both are empirically informed and structured tools designed to aid professional judgement. The ERASOR has been complemented more recently by its creator (Worling, 2013) with a scale that looks at protective factors, Desistence for Adolescents who Sexually Harm (DASH-13). However, protective factors have not, as yet, been demonstrated to stop sexual reoffending (Prentky et al., 2016). In addition, the accuracy of such tools varies and they are best seen as adjuncts to an assessment rather than being relied on exclusively (Ryan, 2016; Vizard, 2013).

The clinical interview with the young person is a valuable source of information in the assessment process. It needs to be supported by a comprehensive case file that provides information on family of origin, early childhood development, education, and medical records. The clinical interview with the young person typically covers a range of topics, including:

- Life history (to include own trauma)
- Personal strengths/deficits
- Current relationships
- Core beliefs and attitudes
- Sexual understanding & myths
- Sexual arousal/fantasy range
- PSB/offense(s) account
- Function of PSB
- Emotions audit
- Psychosocial functioning
- Hopes and fears
- Unique factors.

This is by no means an exhaustive list, and each topic is multilayered. Additionally, it is unlikely the young person will have answers to all the issues.

Accordingly, in assessments it is important to "mind the gap," that is, the lack of information that typically can accompany concerns about PSB in young people. There can be considerable focus on the young person displaying the PSB as professionals and families deal with serious child protection issues and practical matters around housing, school and day-to-day issues. Collateral interviews with parents, school, and those in loco parentis are an essential part of assessment whenever possible. In striving to see the child as a whole, one needs to understand his/her environment, and how he/she functions in different settings and influences (Hackett, 2011; Righthand & Welch, 2001). It has been suggested that using a multidisciplinary team and allowing input from a variety of adults in the young person's world is of benefit from an information point of view as well as because it also allows the assessor to visit the child's world (Ryan, Leversee, & Lane, 2011).

## Young People and Polygraph

Self-report is the most common vehicle for gathering information from young people with PSB in both assessment and intervention (Worling, 2012). The use of polygraph, even when used with adult offenders, has raised questions and criticism; not surprisingly, then, its use and value with young people displaying PSB is even more controversial. Critics have expressed concerns that perhaps "more information is not always better information." They also have serious reservations about how the young person benefits from the process, and whether it may be counterproductive to building trust (Prescott, 2012).

However, with reports that many young people are dishonest about the extent of their offending, perhaps there is an argument for the use of polygraph as a supplementary tool when working with this cohort. One study reported an 80% level of deception amongst youth with respect to their offenses prior to intervention (Burkhart, Cook, & Sumrall, 2008). The participants were found to have been deceptive about:

- the total number of victims,
- the total number of offenses, and
- the amount of force used during their offenses.

Such information is relevant to assessment, intervention and management plans, as well as being important to victim identification and support. Similar results were found elsewhere; for example, polygraph was used to assist and optimize assessment and intervention with a group of 60 juveniles who engaged in PSB. The findings demonstrated a significant increase in the number of victims disclosed, including many family members. These results were obtained despite the fact that more than one-third of participants had undergone intervention prior to the polygraph testing. In addition, there was an increase in the number of younger victims (40% aged 6 or under) and male victims than previously acknowledged (Van Arsdale, Shaw, Miller, & Parent, 2012). Many of the disclosures were made pretesting, similar to findings from other studies (e.g., Grubin, Madsen, Parsons, Sosnowski, & Warberg, 2004).

In addition to undisclosed victims, the polygraph also has been found effective in detecting adjunctive crimes and other areas of sexual deviance. For example, in their meta-analysis Seto and Lalumière (2010) found that 14% of young people with PSB acknowledged engaging in bestiality. While not a high incidence of bestiality, it nonetheless raised the question as to what extent the question is ever asked of young people. In another study where self-report and polygraph were used, there was a substantial degree of underreporting via the former method (Schenk, Cooper-Lehki, Keelan, & Fremouw, 2014)—whereas self-report provided a 37.5% incidence of bestiality, the use of polygraph examination resulted in an increase to 81% of the occurrence. The authors highlight the impact such a discrepancy might have on a treatment program. Intervention is likely to be compromised when a full picture of the nature of the PSB is not known. When the range and extent of sexual interests and behaviors is understood by therapists, they are better equipped to assist in the development of healthy sexual development (Barbaree &

Marshall, 2006). Undoubtedly, the debate as to the appropriateness and usefulness of the polygraph with young people will continue; however, it is an important discussion given the safeguarding and intervention implications.

## Intervention

Effective intervention is underpinned by the assessment process, where the parameters of the problem begin to be explored and understood (Burkhart & Cook, 2010; Hunter, 2010). Not surprisingly, it has been suggested that only after months of intervention will the true nature and range of a young person's sexual offending become apparent (Baker, Tabacoff, & Tornusciolo, 2001; Burkhart et al., 2008). However, as young people are in developmental flux, and malleable in their thoughts and behaviors, it is an ideal time to intervene (Worling, 2012). Cognitive behavioral therapy is typically associated with PSB. However, intervention with young people is not limited to such an approach, and most programs are informed by psychoeducational models, attachment theories, strengths-based approaches, and tailored intervention (Rich, 2011). Group and individual sessions increasingly are provided for young people displaying PSB (McCrory, 2011).

Multimodal, structured interventions, in particular those that include social skills training, appear advantageous in reducing violent and other antisocial behavior in young males, as opposed to an exclusively educational, vocational, or undirected therapeutic approach (Baim & Guthrie, 2014). Such an approach is also seen to be advisable in young people displaying PSB; multisystemic intervention, in particular, has received considerable attention in recent years as an effective way forward (Borduin, Schaeffer, & Heiblum, 2009; Letourneau et al., 2009).

Evidence suggests appropriate family involvement can reduce the likelihood of future PSB, and interventions that involve family members are more successful than those that do not (Borduin et al., 2009; Bourke & Donohue, 1996; Letourneau et al., 2009; Letourneau, Schoenwald, & Sheidow, 2004;). Of course, this can be a sensitive and complex interaction in many situations.

It has been suggested that insufficient attention has been paid to the family pathology of young people exhibiting PSB, including their propensity to have more secrets, myths, and atypical behaviors (Baker, Tabacoff, Tornusciolo, & Eisenstadt, 2003). Insight into the environment from where such young people have come is likely to increase the ability to undertake preventative action. Dealing with family, friends, neighbors, and school, the young person's "systemic contexts" (Bourke & Donohue, 1996, p. 5), is time-consuming and may be met with obfuscation and lack of cooperation. However, intervention at a family level can focus on providing therapeutic educative input to family members and has been found to be a worthwhile approach (Letourneau et al., 2009; Yoder & Brown, 2015). Neglecting the early life experiences of a young person, which typically involve their family, can limit the understanding of their world (Finkelhor, 2015) and, in turn, may result in a less than effective response.

Intervention must not be limited to the presenting problem(s); it should be broader in reference and multiagency linking. For example, in a study of 498 juvenile sex offenders, employment was associated with a decrease in offending for the entire sample van Den Berg, Bijleveld, & Hendriks, 2015).

In some instances, a residential setting for intervention is a necessary choice. Such an option provides intensive intervention while nonetheless harnessing, when appropriate, the positive aspects of family involvement. Such intensive programs have been found to show positive outcomes (Calleja, 2015; Waite et al., 2005). A residential setting allows for a range of interventions with young people on an almost 24/7 basis. When the environment is therapeutic, and with specially trained staff, there is an emphasis on moving forward positively, and evidence of that change is seen in daily living as skills are put into practice and self-esteem is enhanced. Of course, not all young people want to be in such a setting, and the tension between their desire to be elsewhere and the need for an intensive input can be a struggle. Nonetheless, the insight gained by the young person, his or her family, and professionals can be significant in the journey to better understand, help, and change PSB.

## The Narrative of Young People Displaying PSB

While research with young people engaging in PSB is increasing, it is primarily quantitative rather than qualitative. The former is indeed important and valuable, but it does not facilitate an understanding of the young person as an individual. As a result of the distinct lack of qualitative research into young people displaying PSB, their voices are seldom heard. Quantitative methodology has more traditionally been a favored approach (Tewksbury, DeMichele, & Miller, 2005), and its ability to predict outcomes, rigorous measurement and generalize results can account for its value and popularity (Worrall, 2000). Alternatively, qualitative methodology allows for a depth of understanding and improved knowledge of the individual (Biggerstaff, 2012; Creswell, 1994; Frost, 2011; Radley & Chamberlain, 2001; Ragin, 2011).

More recently, qualitative methods have been used to good effect in studies of sexual offending against children (Mannix, Dawson, & Beckley, 2013; Pflugradt & Allen, 2012; 2010; Quayle, Allegro, Hutton, Sheath, & Lööf, 2014; Somervell & Lambie, 2009; Winder & Gough, 2010). Other studies have been carrying out interesting and informative qualitative work on victim experiences (Katz & Hamama, 2015; Whittle, Hamilton-Giachritsis, & Beech, 2015), as well as some small-scale preliminary work with young people displaying PSB (Sheehan, Nichols, Shires, & Kilpatrick, 2015); case study presentations also are becoming more common (Rich, 2011). A qualitative approach was taken by Yoder and Brown (2015) who interviewed services providers to garner their views on what deters family engagement in intervention. Their results suggest that stress, level of preparedness, and subjective barriers (e.g., money, travel) are blocks to involvement. Another study sought out *former* service users who engaged in PSB in their youth to qualitatively explore their experiences (Masson

et al., 2012). Their findings highlighted the extent to which such young people may need long-term support, and gave insight to the positive and negatives of the services they were provided.

While research consistently—and indeed increasingly—advocates seeing young people who display PSB as individuals, and views them ecologically, developmentally, and holistically, there continues to be a shortfall in hearing their perspective in the research undertaken. Concerns have been raised that treatment providers who work with young people with PSB only see deviant, delinquent, disordered, deficit-ridden, and deceitful young people (Worling, 2013). While certainly not all service providers fit this characterization or possess such a narrow perspective, it is important to understand their world from an etiological perspective, as well as access more information about their planning, grooming and abuse with the goal of reducing recidivism (Jones, Cisler, Morais, & Bai, 2016). To this end, Case Study 1 (below) highlights the information and benefits of a more qualitative approach, and looks at some key issues.

The importance of reducing shame and building rapport and trust in young people is well-recognized as an area of work when dealing with those who have engaged in PSB (Prescott, 2012; Rich, 2015). The challenge in intervention is to help young people become less stifled by shame or fear of judgement, and encourage them to engage honestly. When Nick, a 15-year-old who sexually abused two stepsiblings, was asked during an assessment how he felt when discussing his PSB, he stated, "[It] *just makes me feel sick.*"

For young people to move forward toward seeing themselves as individuals who are "more than their PSB," it is crucial to help them understand the depth of the feelings associated with their behavior. A difficulty in the process of change is captured in the title of Lambie's (2005) book, "You Can get an Adolescent to Grunt but You Can't Make Them Talk," where he looks at interviewing strategies. "Why did you do it?" is a question that will probably not receive a signifi-

cant answer. For example, in Nick's words, "*I dunno why it happened, like.*" This is a common, initial response with this particular group, and one that therefore calls for experienced and informed practitioners. The young person may never be able to fully, or even partially, answer this question. However, one can learn about them from their current thoughts, feelings, and behaviors. When Nick completed a questionnaire about his sexual beliefs and attitudes during assessment, some of his answers highlighted gaps in his comprehension, despite the fact he had reached his teens. For example, he answered "*Don't know*" to the statement "It's normal to hurt someone when having sex" and "*True*" to the statement, "You can't get pregnant while standing up" and "*True*" to the statement, "If a man has sex with a boy, then they are both gay." While their sexual behavior might suggest otherwise, sex education as a core component of any intervention with young people who engage in PSB has been demonstrated as necessary (Dwyer & Boyd, 2009).

Case Study 1 further details Nick's narrative, and provides insight into how seeing him holistically is likely to facilitate greater rapport and, in turn, potential for change.

## Case Study 1

Nick was sexually abused by a 30-year-old male relative from the age of 6. The abuse continued for 3 years, and included penetration and being forced to perform oral sex on his abuser. Nick sexually abused his stepsister and stepbrother, 4 and 6 years his junior, respectively. Victim statements in the case file detail that Nick carried out the same behavior with his siblings that was perpetrated upon him by his abuser, namely anal penetration, sexual touching, and physical violence, over a number of years. There is some support for the concept of "copycat perpetration," where young people who have been victims of sexual abuse replicate the acts on others (Hunter,

Figueredo, Malamuth, & Becker, 2003). Another relative is a convicted sex offender, and Nick's family is well-known to professionals for issues surrounding neglect and domestic violence. However, Nick carried out his abusive behavior more frequently than was done to him, and the regularity with which he engaged in PSB is significant. Nick reported, "*I did it with my sister most days and the picture of what happened is still going through my head.*"

Based on this information we know the victims are likely to need intensive therapy to deal with their prolonged trauma, that Nick's behavior is likely to be entrenched due to its almost daily occurrence, and that he is likely to still engage in sexual fantasies about his siblings. In terms of motivation, Nick has reported, "*I just thought it was ok since it happened to me*" but also "*I know what I have done was wrong…I knew straight away it was wrong.*" Nick also has identified feelings associated with his behavior. "*I was angry with them so I just hit them … the two of them equally annoy me …. They have always hit like, they hurted me so I wanted to hurt them back, that's pretty much it, like.*" Of course, this will not be the totality of the situation, if indeed a true representation at all. Nick is still holding onto a version of events that allows him to attribute blame to his victims.

Following disclosure Nick was removed from the family home and his new caregivers participated in the assessment process. They described him as "*the forgotten child*" in the family dynamic, where all emphasis was on the younger children. His mother appeared to be struggling to consider the totality of the situation, as evidenced by her statement, "*He's turning into a lovely young fella, it's a pity what happened.*" Her minimizing of concerns seems to extend to the family member convicted of sex offenses against a child; for example, on one occasion she said, "*When he came out of prison we was just told that he could be a risk. But I had no concerns with him around my children.*"

Apparent or actual parental ambivalence is not unusual in such situations, and accepting abuse occurred, as well as dealing with one's emotional response and the immediate practical issues, does

not always happen in the early stages of disclosure (Hackett, Balfe, Masson, & Phillips, 2014; Hackett & Masson, 2006; Worley, Church, & Clemmons, 2012). Matters are, of course, compounded when a parent has a child who is a victim as well as a perpetrator. This case highlights how one cannot, for many reasons, see the young person in isolation from his family history and environment, nor one-dimensionally as a statistic.

## Manipulation Habits/Grooming

There is little research into how victims are coerced and silenced, and the extent to which violence is used by young people (Hunter, Hazelwood, & Slesinger, 2000). However, some studies suggest threats of violence and coercion are indicative of a greater likelihood of recidivism (Knight, Ronis, & Zakireh, 2009) and a possible risk factor (Worling & Långström, 2006). It also has been postulated that young people do not have the cognitive ability for detailed planning, which may be a risk factor in adults (Prentky et al., 2016). Their impulsivity and egocentric perception of the world may preclude much planning. While the word "grooming" is long established as an area related to adult sex offenders, it is infrequently referred to in literature and research exploring adolescents. However, clinical experience suggests that young people may be engaging in more instinctive and practiced manipulation habits to "set up" their victims (Prentky & Righthand, 2003) than previously considered. Parents typically are shocked when a disclosure emerges against their child. In fact, perhaps this is why disbelief and denial are common, as the parents have been blindsided by their child. This aspect of PSB in young people needs more attention to develop a greater understanding.

Intimidation was found to be more frequent than violence in one study of 62 young people who offended against children (Hunter et al., 2000). In following Nick's story, he detailed how he told one of his victims, "*It's just horseplay.*" However, it later emerged in the assessment process that Nick also threatened his victims with a knife and used

physical force and aggression to meet his needs. He would block the bedroom door to ensure no one could get in while he was abusing. While he explained that, "*They never did or said anything to get away,*" he subsequently qualified this statement and added, "*I can't remember them saying anything.*" This is an important distinction, and one that emphasizes the necessity for patience and persistence. Nick needs to develop and utilize skills to ensure he does not miss or ignore cues in the future—whether spoken or unspoken. Grooming or manipulations habits, as part of the process of young people engaging in PSB, cannot be dismissed, and indeed, warrant research attention.

## Conclusion: Future Directions

Young people engaging in PSB present a complex challenge to professionals. While research on this population is in its early stages, each youth's narrative provides a richer understanding of his or her life history, beliefs, attitudes, strengths, and potential. Quantitative research has an important role to play; however, the voices of young people are also needed to ensure that they are seen as individuals and, in turn, optimize the response. Jamie, whose words were heard at the start of this chapter, replied to a question about his hopes and fears for the future: "*I worry that I'll keep having these thoughts and it'll get worse … I should be at the shopping center doing normal teenager things.*" Comprehensive assessment, targeted intervention, and individual understanding will hopefully allow professionals to help Jamie move beyond problematic sexual thoughts and realize his modest dream.

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# Internet Sexual Offending

Michael L. Bourke

Sex offenders surely must be at the top of the list of our most destructive criminal populations. Within society they attempt to worm their way into our healthiest institutions—youth-serving organizations, churches and temples, schools, and youth athletics, to name but a few settings—for the sole purpose of committing acts of harm against children. When they succeed, the consequences can be devastating to their victims. Adverse childhood experiences such as sexual victimization have been linked to a variety of issues, including behavioral and psychological problems (e.g., suicide attempts, depression), medical conditions, social and cognitive impairment, and substance use disorders (Rape, Abuse, & Incest National Network [RAINN], n.d.; Substance Abuse and Mental Health Services Administration [SAMHSA], 2017).

For detectives and agents who work on sex crimes squads and multiagency Internet Crimes Against Children (ICAC) task forces, the investigation of sex offenses can be quite difficult.

Challenges include keeping up with technology to better detect, identify, and apprehend child abusers; attempting to identify victims portrayed in the abuse material; and combating the secondary traumatic stress and vicarious trauma that can result from repeated exposure to child exploitation images and videos.

Unfortunately, the problems sex offenders create do not end with the identification and arrest of the offenders. Significant issues continue to plague those who prosecute, assess, treat, and manage these men and women in the community. These professionals are also at risk for vicarious traumatization, and comprehensive efforts to safeguard them are lacking. In addition, myths about sex offenders and sex offending are often brought into the courtroom; these misunderstandings interfere with appropriate risk assessment and the administration of justice. A few examples are discussed later in this chapter.

Outside the legal system, researchers have struggled to produce consistent findings on some of the key questions relating to the so-called "online offenders" (e.g., risk assessment, dangerousness). Interestingly, researchers who have worked directly with sex offenders in treatment settings seem more likely to view the labels of "hands-on" and "hands-off" as a false dichotomy. They realize an offender's sexual interest in children can manifest as a hands-on crime against a child (e.g., child molestation) on one evening and as an online offense (e.g., receipt of child

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pornography) on the following evening. This conceptualization is entirely consistent with other forms of human sexuality—a "normal" person might very well engage in sexual activity with their partner the day before or the day after they viewed adult pornography. Just as it would be foolish to place those people into categories of "adult pornographers" and "people who have sex," it is equally illogical to assume the sexual behaviors of individuals who are sexually interested in children are circumscribed or occur in a vacuum. The behaviors, at a minimum, are adjunctive; for some they are likely also additive or could serve as mutual reinforcers.

The issue is not simply a conceptual one, although understanding how pedophiles "tick" is a good starting place. Experienced interviewers are aware that many of those who are apprehended for possession of Child Exploitation Material[1] (CEM) following online operations have hands-on victims who never told anyone what he or she did to them. This information is not anecdotal; their reports are in alignment with large-scale sociological surveys such as those conducted by David Finkelhor and his colleagues. In other words, the number of undetected victims offenders say they kept in the shadows (via threats, grooming, manipulation, shame, etc.) match the number of victims who self-identify as having suffered silently in the shadows. Note that our academic colleagues cannot be faulted for not taking this information into account; it is usually disclosed in psychotherapy, during assessment interviews, on treatment paperwork (e.g., "victim lists," psychosexual history questionnaires), and while undergoing polygraph examination. Since the crimes have gone undetected outside the therapeutic setting, the disclosures recorded in clinical notes are not observable in the "official records" often used by researchers.

Conversely, researchers who work closely with law enforcement are aware that when child sexual assault victims make an outcry, their perpetrators often have CEM on their computers when their hard drives are seized and searched. This material may have been shown to the victim to desensitize him or her to the abusive acts, it may have been produced by the offender with his current or previous victims, or it may be material he downloaded from the Internet for masturbatory purposes. In any case, the presence of CEM typically does not surprise investigators, prosecutors, or most clinicians who work with offenders since child sexual abuse and the collection of CEM are manifestations of the same motivational pathway: *a sexual interest in children*.

It would be inaccurate to suggest everyone who downloads CEM has assaulted a child; there are certainly individuals who have not had access or opportunity to fulfill their fantasies, and/or who have sufficient internal or external inhibitions that (thus far) have kept them from succumbing to any deviant urges. Conversely, not all child molesters download CEM, just as not all rapists view rape-themed adult pornography. A better question, however, has to do with the *risk* CEM possessors pose to youth. An analogy often used in the field may make this question easier to answer: How many people who collect baseball cards have also played the game (or would play, if given the opportunity)? In other words, do the things we collect reflect our fantasies and interests? An answer in the affirmative seems obvious.

A similar analogy addresses online collecting behavior and involves people who download images and videos about trout fishing. How many have spent time in the water with a rod and reel? Perhaps not all, but surely most. Equally important, how many of the people who watch fishing videos engage in fantasy while watching them? And this is a key point: When they view fish being pulled from scenic mountain streams, are they fantasizing about the next time they will be able to watch a fishing video, or the next time they will have the opportunity to hook a trout? It seems clear we view and collect things that reinforce our fantasies, and we fantasize about things we would like to do.

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[1]Terminology varies from country to country; most professionals in the field suggest using the terms "Child Sexual Abuse Material" (CSAM) or "Child Exploitation Material" (CEM) rather than "child pornography." In this chapter, the latter term is used only when referring to the legal statute in the United States.

I wonder how much faster our research would advance if we ceased trying to find differences between pedophiles who are caught online (fishermen watching fishing videos) and those who are caught offline (fishermen fishing), and instead started examining (a) what makes offenders more likely to hurt a child, (b) how to identify the most dangerous offenders, and (c) how to prevent either crime from occurring in the first place?

## A Brief History of Pornography

Humans have created pornographic material throughout the course of history, and those who produce explicit material seemingly adapt to new media just as fast as technology allows. *Venus of Willendorf*, one of the earliest manmade depictions of the female form (complete with exaggerated sexual organs) is estimated to be more than 25,000 years old. In addition to crumbling temples, the Greeks and Romans left behind countless depictions of heterosexual sex, homosexual sex, oral sex, orgies and more (Weisman, 2015). Uncovered from the ashes of the ancient city of Pompeii were hundreds of sexually explicit images, sculptures and frescoes lining the walls of brothels, bathhouses, and common households (Weisman, 2015). One of the most famous items recovered was a sculpture of the god Pan having sexual intercourse with a goat.

When the Gutenberg Press was established in 1440, it did not take long for pornographic engravings to be published—sexually explicit engravings were created in 1524. In 1749, John Cleland wrote the first erotic novel that covered highly controversial themes (for the times) including bisexuality, voyeurism, group sex, and masochism (Weisman, 2015). Other early books and writings covered topics such as incest, bisexuality, and sexual activity between adults and children. Most of these writings were illegal under obscenity statutes and were banned. Today, child pornography is unequivocally illegal in most countries.

As technology advanced, so did the sophistication of sexual media. Slade (2006) indicates the first pornographic daguerreotype (a type of photograph) surfaced in 1846, and production of erotic films commenced almost immediately after the invention of the motion picture in the 1880s. In fact, the videocamera's ability to record sexual activity created a flurry of pornography production; the Kinsey Institute has approximately 2000 "stag" films in their collection that were produced between 1915 and 1968 (Rosen, 2010). The films were primarily distributed in underground markets until the 1970s, at which time people began to purchase home videocassette recorders (VCRs) and pornography entered its "Golden Age." In 1978, fewer than 1% of American homes had VCRs, but 75% of VHS tapes sold were pornographic (Weisman, 2015).

The next technological leap occurred when the Internet became available and easily accessible. Although more rudimentary forms of the Internet have existed since the late 1960s, the world-wide web as we know it today emerged in the early 1990s, and it was a game-changer for producers, distributors, and consumers of pornography. People quickly found ways to use the Internet to acquire audiovisual stimuli to enhance their sexual fantasies; the first pornography site was established online in 1994, and today pornography sites are some of the most popular sites in the world (Weisman, 2015).

## Why People Download Child Exploitation Material

As one might imagine, the desire for material to enhance sexual fantasy is not constrained to those with normative sexual interests. Individuals with aberrant desires are similarly motivated to produce and view stimuli to satisfy their deviant predilections. The Internet allows them to explore their prurient and paraphilic interests with relative anonymity. Further, it provides an opportunity for them to interact with other like-minded people in the privacy of their home.

The Internet has become ubiquitous, and one can find almost anything online. Search engines have taken the place of the Yellow Pages, dictionaries, and encyclopedias. The three "engines"

(Access, Affordability, and Anonymity) identified by Cooper (2009) appear as valid today as they were 10 years ago. Smartphones allow information to be retrieved from nearly any location, and quickly—one can easily indulge a need for immediate gratification. Internet access is very inexpensive in developed countries—Wi-Fi access is often free in coffee shops and hotels, and computers can be found in nearly every library in America. Also, Internet browsing can be done in an atmosphere of relative anonymity—no one needs to know what interests anyone else has, and there is no risk of running into one's neighbor or boss in the local "adult" bookstore.

## Sexual Interest in Children

I am often asked why bright, successful, and otherwise upstanding members of society choose to possess, produce, and distribute CEM. There have been numerous theories advanced to explain the potential motivations of these offenders (Beech, Elliott, Birgden, & Findlater, 2008; Lanning, 1992; Quayle & Taylor, 2002; Seto, Reeves, & Jung, 2010). The most robust finding from studies, however, is the explanation that coincides best with my clinical experience and is the explanation most consistent with our knowledge of human sexuality. That is, the overwhelming majority of offenders view CEM for the same reason as those who view the so-called "adult" pornography do—because they find the images and videos sexually arousing and sexually satisfying. As Malesky, Ennis, & Gress (2009) note, "Although individuals manufacture, collect, and disseminate child pornography over the Internet for a variety of reasons, sexual interest appears to be the primary reason for engaging in these activities" (p. 308).

Put simply, sexually explicit material enhances sexual fantasies. People who download and view pornographic material online seek stimuli that they find interesting and arousing, and ignore or avoid images and videos they find boring or that makes them uncomfortable. Individuals who find males sexually attractive seek videos involving men; those interested in women seek stimuli involving women. Those aroused by persons of a specific race or body type, or interested in specific sexual acts, may download and save to their hard drives material depicting those people and involving those acts. If the books on our bookshelves reflect things that interest us (or the things we are okay with others knowing interest us), then the contents of our computers' "downloads" folders also represent our interests, including our more private predilections.

Individuals who are sexually interested in children seek, view, and download content that depicts the sexual exploitation of children in their preferred age group. They often save material involving children with certain characteristics such as age, gender, a particular build or body type, and hair color. They may also seek and save material depicting certain acts (e.g., those that involve a fetish or paraphilia). Because people "choose the kind of pornography that corresponds to their sexual interests" (Seto, Cantor, & Blanchard, 2006, p. 613), non-pedophilic men and women not only have no reason to download CEM, but if they did, the material would probably make them angry and sad.

## Other Motivational Pathways

Of the other motivational pathways that have been proposed to explain why offenders download CEM, some may be valid but others are merely excuses offenders make up to justify or minimize their behavior. It can be difficult for researchers to separate valid motivations from self-reported stories, including cognitive distortions and outright lies, and as a result there are some assumptions and myths that continue to clutter the conceptual field. It is noteworthy that even the valid motivations for downloading CEM typically are adjunctive to the primary motivation (i.e., a sexual interest in children). These secondary motivations may influence the behavior, but they do not cause it or necessarily play a significant role in maintaining it. Some of the motivations hypothesized in the literature include the following:

## Profit

A very small percentage of offenders claim they distributed CEM as a way to earn money (e.g., by creating "pay" websites). Although this has happened in years past, it was never a common occurrence. Further, it is becoming increasingly less frequent because the material is available for free, and locating and accessing CEM is not difficult for any motivated offender. A variation of this activity—making money from live streaming child abuse—remains problematic. However, in both cases (pay websites and live streaming) I have not encountered a case where an offender attempted to make money by distributing CEM but was not sexually aroused by CEM, himself.

## History of Abuse

One of the most common excuses offenders tell mental health professionals is that they were sexually abused as children, and that their online activity is somehow a result of the abuse. Although the extant research indicates less than 20% of sex offenders were sexually abused in childhood, during pretrial evaluations as many as 60% of offenders claim they were victims of molestation (Hindman & Peters, 2001). The authors note:

> In the early years of sex offender research and treatment, clinicians typically asked offenders to report on their own early histories. In staggering numbers, they reported that they had been sexually abused as children. Society—even the normally-skeptical mental health community— readily accepted such claims, in part at least because they offered a comforting explanation for the otherwise inexplicable behavior of child molesters. Some very reputable and good people began to believe that "bad" people must have been treated "badly," without ever considering how many abused people (although perhaps psychologically impaired) do not become sex offenders. Almost overnight, the sex-offender-as-victim paradigm became a pearl of conventional wisdom, a staple of television talk shows and popular print media. (p. 9)

Hindman and Peters collected a sample of offenders who were entering an outpatient treatment program and subjected them to polygraph confirmatory testing and treatment. Following the polygraph their self-reported histories of abuse fell from 61% to 30%. This finding is consistent with that of Hanson and Bussiere (1998), whose highly regarded meta-analysis of 61 treatment outcome reports published between 1943 and 1995 and covering 28,972 sex offenders found that childhood victimization is *not* a predictor of whether the person will commit another sexual offense. These results are also consistent with a recent longitudinal study published in the *Journal of the American Medical Association* by Widom and Massey (2015). The researchers tracked a sample of 908 children who had been abused and neglected between 1967 and 1971 and a compared them to a matched control sample of non-abused children. They followed them until 2013 to determine if various types of abuse were correlated with future criminal behavior. They looked at correlates for committing a later sexual offense and discovered histories of sexual abuse did not reach clinical significance. They concluded, "[T]he widespread belief that sexually abused children are uniquely at risk for becoming sex offenders was not supported by prospective empirical evidence" (p. 1).

Unfortunately, this seems to be the myth most likely to be accepted by professionals, and their naïveté can be dangerous. Many accept without question (or without the *right* questions) the offender's story about being sexually abused. Usually he indicates his alleged perpetrator is deceased, or was a stranger or a person now long gone from his life—this prevents corroboration or verification. Sadly, according to offenders, some treatment providers are so sure the offenders have been abused, they practically direct their story for them. As one offender once told me, "I said I was abused because everyone was 'pulling' for it. No matter who [sic] I talked to—the psychologist, my attorney, the judge—everyone was like, 'Well, were you abused?' I finally just agreed with them."

It is possible therapists "pull for" sexual abuse histories for the same reason people in the public believe the myth—they want an explanation for why otherwise seemingly "normal" people commit acts of evil. Salter (2008) calls the tendency for therapists to see their offenders as victims "strangely comforting," and adds, "If offenders are just victims, then no one has to face the reality

of malevolence, the fact that there are people out there who prey on others for reasons we simply don't understand" (p. 74).

## Collecting

Some offenders try to say the reason that they downloaded CEM was because of the satisfaction they obtained from collecting an entire set of images in a child pornography "series." While many offenders described a feeling of accomplishment when they were able to find and download an entire series, none ever suggested to me this desire to collect something was the reason they went online and began searching for CEM in the first place. It seems improbable that someone with an urge (or even a compulsion) to "collect something" would choose CEM—morally repugnant, illegal material—as the best material to satisfy this urge. Further, it does not seem to apply to any other criminal endeavors; burglars and robbers do not indicate that they simply wanted to "collect" other people's possessions, for example.

## Therapy

One of the most interesting excuses offenders give to investigators, evaluators, treatment providers, and researchers is that they collected CEM as a form of "therapy" for dealing with their problems (Quayle & Taylor, 2002). This explanation usually takes one of two forms: (1) the offenders admit that they are aroused by CEM and indicate the process of downloading and masturbating to CEM was stress-relieving, and/or (2) they deny that they are aroused by CEM and claim that they downloaded the material merely to help them "work through" their own personal histories of childhood abuse. These versions are obviously quite different and will be addressed in turn.

## Coping Strategy (Stress Relief)

This first explanation is plausible. Many offenders whom I have interviewed or treated indicated they used masturbation to online pornography as their primary coping strategy for handling stress and negative affective states. When they had a stressful day, they would masturbate to child pornography. When they were frustrated or angry, they would do the same. When they were sad? The same. As a coping strategy the behaviors were powerful because they allowed the offender to both "escape" from his troubles through fantasy, as well as experience pleasurable sensations and the release of oxytocin from masturbation (Behnia et al., 2014; Carmichael et al., 1987; Love, 2014). Note that the stress relief they obtained from engaging in this behavior was not the primary reason they viewed or downloaded CEM; the primary motivation (and what made this activity pleasurable instead of aversive) was their sexual interest in children.

## "Processing Past Abuse"

People who download CEM sometimes claim their behavior was an attempt to "work through" their own childhood abuse (a variation on this theme is that they were conducting "research" to help them process their early childhood experiences). Unfortunately, there are misguided mental health professionals who have latched onto this explanation. The following is a hypothetical case illustration:

> Dr. Eve Nye has been asked to evaluate "Don" at the request of his attorney, and she appreciates and notes in her evaluation that he has arrived on time. She finds him to be friendly, bright, and engaging. He doesn't give her the "impression" he is pedophilic. His explanation—that he was abused as a boy and was always too ashamed to tell anyone— seems genuine. In fact, her heart went out to him when he broke down in the session and had to take a few moments to compose himself. Dr. Nye did not see any of the signs of deception she learned in the three-hour continuing education course she took last year, and she was proud of herself for quickly building rapport with Don. If he was lying, she felt sure she would know it. As a matter of fact, when he denied he was sexually interested in children, he looked her straight in the eye. Despite her relative lack of experience dealing with sex offenders, she remembered hearing somewhere—a conference, maybe—that most of these men were abused when they were children. She figures Don must have experienced horrible things based on all that emotional pain he was showing. After she told him it was okay to cry, he really let out all that repressed pain. Healing had already begun for this misunderstood survivor. And if there is one group she is comfortable treating, it's survivors ….

That paragraph is full of clinical errors that convince clinicians like Dr. Nye to testify in court that defendants are simply conflicted and confused. The professionals explain how their client began downloading child abuse material to better understand his own childhood abuse, or perhaps to clarify fuzzy "repressed" memories of possible abuse that were just beginning to surface.

The problem with this defense, and it is a significant one, is that this is not how humans process trauma. Although the pseudo-conceptualization sounds legitimate to laypeople, individuals do not, in fact, download CEM to "work through" abuse or "process" memories of traumatic events. Service members who have returned from war do not download photographs of wounded comrades in arms. People burned in house fires do not view photographs of severely burned patients. Following automobile accidents, patients do not download photographs of other maimed or bloody accident victims. And people who were physically abused as children do not download videos of children being beaten. In fact, the diagnostic features for Posttraumatic Stress Disorder (American Psychiatric Association, 2013) include the following:

> Stimuli associated with the trauma are persistently (e.g., always or nearly always) *avoided* [emphasis added]. The individual commonly makes deliberate efforts to avoid thoughts, memories, feelings, or talking about the traumatic event. .. and to avoid activities, objects, situations, or people who arouse recollections of it." (p. 275)

In short, people do not download CEM to work through their own abuse. This author has even seen cases where men were downloading material depicting teenaged girls and claiming they were using the material to work through their own abuse! As Salter (2008) notes, "Being victimized as a child has become a ready excuse for perpetrating child molestation. The offender who claims he himself was victimized gets seen as less of a 'monster' than one who wasn't a victim, and he gains much more empathy and support. It is hard to trust self-reports of sex offenders about abuse in their past when such reports are in their best interest. Only a few studies on this topic have used objective measures, and they have found very different results" (p. 73).

## Addiction

At the time of this writing there is little consensus on whether someone can become "addicted" to the Internet. Some researchers (e.g., van Rooij & Prause, 2014) have analyzed the extant evidence and concluded there is insufficient research to justify an Internet addiction disorder. Van Roooij and Prause found it more useful to look at how individual differences combined with environmental factors to lead to problematic Internet use (p. 204). Others see online problematic behavior as a form of Obsessive-Compulsive Disorder (OCD), impulse control disorder (Shapira, Lessig, Goldsmith, Szabo, Lazoritz, Gold, & Stein, 2003; Yellowlees & Marks, 2007) or hypersexuality (Reid & Kafka, 2014).

Although the debate on whether the diagnosis of Internet addiction should exist is still underway and a full discussion of the issue is beyond the scope of the current chapter, there is a relevant secondary issue—whether someone can be addicted to CEM. This discussion is distinct from the one about general problematic Internet use; in this case, the argument is whether someone can become addicted to particular content. If so, are we limiting the conversation to adult pornography and CEM addictions? Or, for example, can someone become addicted to images of Ferraris? Or thunderstorm videos? If we conclude people can become addicted to certain content, would that include, say, videos created by terrorist organizations on how to make bombs?

An alternative way of addressing this issue is to acknowledge that pedophilia is a disorder, not an addiction, but also recognize that *if* research ultimately suggests Internet addiction exists, then—in theory—pedophiles could *also* be addicted to the Internet. In this author's experience, however, the fervor with which offenders seek CEM is not the result of addiction to the material or an underlying OCD but rather is attributable to basic behavior modification. As a result of repeated positive reinforcement (masturbation and orgasm) and negative reinforcement (reduction of stress and management of

negative mood states), some offenders condition themselves to rely on the Internet for reducing stress and regulating negative mood states. In the absence of healthier strategies for dealing with life's stressors, the behaviors of downloading and viewing CEM and masturbating to the images can become prominent, and even central, activities in their lives.

## Curiosity

People sometimes try an exotic food just to see what it tastes like. No doubt some visitors to Scotland have tasted their national dish, *haggis* (a pudding containing a sheep's heart, liver, and lungs minced with oatmeal and spices, traditionally encased in the animal's stomach), visitors to Sweden may have sampled *surströmming* (fermented, rotting fish), and tourists in Vietnam or the Philippines might have tried *balut* (soft-boiled fetal duck). But curiosity ends at the first bite, when you know if you like these traditional delicacies or not. The distinction between those who will begin to save these foods in their refrigerators and kitchen pantries, and those who will not, is: "I liked it." Curiosity, however, only prompted the first bite.

Society is curious—indeed, apparently fascinated—by crime and acts of violence. Several of the most popular television shows involve the investigation of criminal behavior (and often very aberrant criminal behavior), and "specials" about serial killers and missing children abound. But the popularity of these programs is not attributable to gratuitous violence (they typically do not depict egregious acts of violence); rather, it is the thrill of the hunt—the "whodunit"—that makes them interesting. CEM is quite different—it involves a significant display of horrendous acts, and there is very little mystery involved in the primal attacks. So if an offender says he viewed CEM out of curiosity, a reasonable question one might ask is, "What is there to be curious *about*?"

There are only two answers to this question: (a) he is curious about the sexual depravity of others, or (b) he is curious about his own. In the former scenario, he does not have to download or view CEM to understand the issues involved, just as those interested in others' drug use do not have

to smoke crack cocaine to assuage their curiosity. While experiential knowledge is desirable in certain circumstances, it is completely unnecessary to appreciate the horrors of child abuse. One's imagination is sufficient. Further, any experiential value gained as the result of curiosity must be balanced against his responsibility for the consequences of his actions, whether they are motivated by curiosity, greed, anger, or any other motivational pathway. He can "experience" the rush of a bank robbery if he wants to, but he also should be prepared to experience the excitement of prison.

It is theoretically possible, albeit bizarre, for someone to be curious enough about what CEM looks like to go online, seek it out, and view it. But even if we accept an offender's report that he experienced a sudden fit of "curiosity" and felt a strong urge to see CEM to better understand himself or his fellow human beings, why did he not simply limit his viewing to one glance at the depravity before shutting down his computer with a shudder? Why did he examine these images for hours or days on end? Why did he masturbate to them? Why did he save 10,000, 100,000 or even perhaps even 1,000,000 files? Why did he create folders and subdirectories on his computer to sort the files according to some personal criteria (e.g., age of child, race of child, sexual act, degree of sadism)? Why did he encrypt or otherwise hide the material? As any investigator, forensic computer examiner, or prosecutor who has viewed CEM can affirm, curiosity is immediately assuaged as soon as the video is played or the image is opened. This material causes what behaviorists call "one-trial learning"—you do not need to view children getting raped dozens (never mind hundreds, or thousands) of times to "get it."

## False Mitigators

It is important to note that in pretrial settings, offenders have one goal: they want forensic evaluators and treatment providers to present them in a positive light (or at least not in the most negative light) in the courtroom. They therefore offer

excuses and disclose information to these professionals to fool them into thinking their behavior was more benign, less frequent, and less egregious than it was. The offenders will claim they had fewer victims than they do, and will downplay their online activity. As far as disclosing other deviant and/or criminal activity, most defense attorneys will almost certainly advise their clients to admit nothing beyond what the authorities already know, and only then in the context of a plea agreement.

It is also not uncommon for defense counsel to hire certain mental health professionals they know will accept the excuses provided by the offender, and who they strongly suspect are likely to view him as "low risk" or simply in need of treatment. Sometimes these professionals primarily work for the defense and purposefully (and unethically) skew their findings to say what defense counsel wants them to say. Others are well-intentioned but very naïve; they believe everyone can be rehabilitated with a little unconditional positive regard. These are the professionals who erroneously believe when the offender shows "remorse" it is a step in the right direction and is a mitigating factor for risk (in fact there is no evidence that remorse is associated with risk, and almost every sex offender who is identified and apprehended demonstrates remorse). They believe "social standing" is meaningful (social status is also not correlated with risk—abusers are found in every socioeconomic class). They testify or write in reports that offenders with no criminal records are at lower risk (This is incorrect. Most sex offenders—even prolific sex offenders—were never arrested before their instant offense). Finally, they believe everything the offender tells them with few challenges and practically no confrontation.

Once the offenders arrive in post-conviction treatment settings, however, it is not uncommon for them to disclose how they manipulated not only their family, friends, and coworkers, but also these gullible evaluators and treatment providers. When I worked with offenders in clinical settings it was fascinating, albeit troubling, to hear the offenders describe how they "played" well-intentioned professionals. Their techniques included what Salter (2008) calls "the appeal to narcissism" (p. 91) and, as more than one offender has informed me, simply "telling them what they already wanted to believe."

Some professionals are not cut out to work with sex offenders. One cannot work in this field without an ability to discern nonsense, and too many psychologists and social workers accept what offenders tell them— hook, line, and sinker. Whether attributable to personality or training, the sad fact is many clinicians operate under the assumption they should believe their client *under all circumstances*. For example, how many professionals were taught in graduate school to challenge a client's tearful assertion that he was sexually abused when he was a boy? Weren't we instead taught to silently hand the man the box of tissues, thus showing empathic regard while simultaneously allowing him to "be with his pain"? Such empathy is entirely appropriate with victims, but a mistake with offenders. The challenge is being able to tell the difference.

## Why Sex Offenders Lie

"I downloaded those videos because I'm sexually aroused by children. I am a danger to practically every girl younger than 12 years old." That is not the explanation an offender would normally express at the time of arrest, nor is it typically what he or she would say to the judge during trial and sentencing. For most offenders, the sound of police knocking on their door was the last sound they heard before their world crashed (as many have said to me); the sound that immediately preceded the horrifying realization their life was about to forever change. Many offenders related that as they observed detectives confiscate their computers, hard drives, and other electronics, they experienced the simultaneous weight of multiple crises—legal, moral, family, social, and financial. As the police carried out boxes of digital evidence and the implications sank in, most felt pronounced psychological distress in the form of devastating embarrassment and shame.

The typical human response to shame is to attempt to psychologically escape from the

situation. We may employ any or all of a number of defense mechanisms, including denial and attempts to misdirect blame to someone or something else. As Zaslav (2016) notes:

> [T]he impulse to blame in response to shame is well documented in history and literature. For example, the Genesis account in the Old Testament, written thousands of years ago, explicitly notes that the fundamental human responses to shame are to hide and direct blame.. . Research in neuroscience and moral psychology suggests that emotional, morally judging brain systems operate swiftly and out of conscious awareness.. .. Plausible sounding blame narratives are produced after our emotional brain systems have already lodged the judgment. (para 3, 6)

Because it is human nature to want to escape from shame, when people are initially confronted about their misbehavior many lie and/or create reasons, excuses, and justifications. We tell "white lies" and "whoppers" to save face and protect ourselves from moral judgment. Thus it is not unexpected that someone accused of engaging in sexual misconduct would respond with deception or excuse-making. In fact, it would be even more expected in case of sexual criminality, because their desperate attempt to lessen their shame is combined with their desire to avoid arrest or minimize the legal consequences of their actions. The truth—that they searched for, viewed, became aroused by, masturbated to, and then saved images and videos of children on a hard drive—is difficult to disclose. And since they know that even the most courageous admission likely will not mitigate their embarrassment or guilt, and it is certainly no legal defense, there is very little benefit to coming clean.

As the reality of the situation sets in and investigators begin to ask him about his behavior, the average offender feels he has no choice but to tell a story. After all, if he immediately acknowledges he downloaded thousands of CEM, his relationships with his parents, siblings, and friends likely will suffer. If he admits to his wife that he has been fantasizing about children since he was a teenager, that disclosure could very well prompt her to leave him and seek full custody of their children. If he tells investigators he viewed and downloaded CEM at work, his honesty will not

protect his reputation in the workplace, and it could cost him his job. If he admits during his court-appointed mental health evaluation that he fantasized about family members as well as male children in the neighborhood, his estimated level of risk could increase. Perhaps most importantly to the offender, if he admits that in addition to the CEM he has also acted out his fantasies with one or more hands-on victims, the admission is not only unlikely to help him in court, but it will likely hurt his case and could lead to additional charges and additional time in prison. In addition, the disclosure certainly will place him at higher risk on risk assessment measures and, in combination with other factors, could even make him eligible for civil commitment. In other words, from the offender's standpoint, in this situation there is everything to lose and very little to gain by telling the truth—that he *downloaded CEM because he is sexually aroused by minors*. He will not say he viewed the photographs and video clips because they enhanced and satisfied his sexual desires. He will refuse to admit they made his fantasies more exciting and more real.

Of course, if the offender is not going to tell the truth, he must come up with a believable story, and there are not many plausible explanations for why someone would become involved in this form of online criminality. Some will seek refuge in denial and will claim mistaken identity (e.g., someone hacked into their network, someone else downloaded the material onto their computer when they were away). Others will use the "curiosity" defense or blame their own abuse history (which may be nonexistent). Some may attribute their conduct to a virus or accidental clicks on pop-up advertisements. Or any number of other reasons they hope will allow them to save face.

## Research Using Criminal Histories

It is perplexing to see researchers "type" offenders based on the offense for which they were apprehended. On the one hand, it is understandable. In addition to being convenient, the use of "rap sheets" to place subjects into study samples

seems justified because of the weight of terms like "official records" and "convicted in a court of law." On the other hand, neither of those terms is synonymous with "accurate" or "comprehensive." If they were, we would place notorious gangster Al Capone in a sample of nonviolent offenders since he was convicted of tax evasion. We could then add two of the most prolific serial murderers and bank robbers in the twentieth century, Bonnie Parker and Clyde Barrow ("Bonnie and Clyde") to the nonviolent group since they had been formally charged only with automobile theft at the time of their deaths.

An offender's "official" criminal history (i.e., the crimes for which he was convicted) is almost never a complete (or near complete) accounting of his misdeeds. Studies have demonstrated that official records of all kinds suffer from inaccuracies—sometimes significant ones—and can be misleading. Studies examining medical and mental health records (Cradock, Young, & Sullivan, 2001; Hong, Kaur, Farrokhyar, & Thoma, 2015; Weng, 2017) consistently find problems. Weng, a physician and researcher, noted so many discrepancies between patients' self-report and what was written in the "official" medical record she wondered if she and her colleagues could even trust what is written in their patients' charts (Weng, 2017, p. 232).

Criminal records also suffer from inaccuracies. The Uniform Law Commission (n.d.) noted, "Recent studies have demonstrated that criminal records. .. may be inaccurate or incomplete." The basis for these concerns is supported by facts provided by the U.S. Department of Justice's (DOJ) Bureau of Justice Statistics. In their 2014 Survey of State Criminal Record Repositories they note that 13 states report 20% or more of all dispositions received could not be linked to the arrest/charge information in the state criminal record database, and 14 states don't know how many dispositions they have that cannot be linked. Further, 17 states have over 1.8 million unprocessed or partially processed court dispositions, ranging from 200 in Wyoming to 633,100 in Utah (DOJ, 2014). With regard to the specific use of criminal records to estimate recidivism, Andres (1989) remarked, "A reliance on official records

as a measure of recidivism leads to an underestimation of predictive accuracy because many criminal acts of higher risk cases may never show up on official records" (para 19).

As concerning as the inaccuracies are, this is not the most problematic issue regarding official records. The most troubling issue is clinicians' failures to understand that as a result of horrible base rates for detecting sexual abuse and exploitation, the crimes listed in the official records represent only a fraction of offenses the subject has committed—they are the metaphoric tip of the iceberg. A man in the prison-based sex offender treatment program where I once worked provides an interesting example of the significant problem that emerges when we "type" offenders based on their crimes of conviction:

> "James," an incarcerated sex offender, disclosed he had molested "thousands" of boys of all ages. The therapist, suspicious of this high number, asked how could have had access to that many children. He replied, "'It's easy. All you have to do is pretend to be a physician for about 40 years. You go from village to village in Central America and South America, conducting "physicals," including rectal and testicular examinations. And you also take "medical photographs" of the boys' genitals. I have easily fondled and digitally penetrated thousands of boys."

> James was arrested when he tried to return to the United States and his laptop was searched at the border. The photographs he had taken were found and he was charged with possession of child pornography. His defense at trial was that he was not a danger to children and that he was not a hands-on offender because there was no record that he had ever even been *accused* of any sexual misconduct. He was sentenced to only 18 months in prison with 36 months of supervised release. Despite being one of the treatment program's most prolific abusers, he also was not eligible for civil commitment because he had never been convicted of a hands-on offense.

Researchers who claim they can statistically control for the low base rates may miss the boat from a conceptual standpoint. They may compare a group of "hands-on" offenders with a cadre of "hands-off" offenders (so named because there is no record of a hands-on offense in the offender's "official record") and confidently describe

differences between the two, despite fundamental errors inherent in the sample selection process.

The reason researchers rely on official records is simple—such records are typically the only type available to academics. We cannot get our hands on the records locked up in the file rooms of child protective services and child advocacy centers—for obvious reasons, those are not available for research purposes. We also cannot possibly acquire records of abuse that have been handwritten in the diaries of teenagers or texted to a friend after she promises to keep the information a secret. Similarly, admissions made in therapy are hidden behind the veil of confidentiality. Thus, the only records that occasionally are made available (and even in those cases, often with personally identifiable information redacted and with strict controls) are cases that have gone through the court system. And although most researchers presumably know these records are poor proxies for the offenders' real histories, they justify their use by assuring themselves they can account for the discrepancies through statistical means. Alternatively, they may indicate their use of the records is wise because these cases have made it through the adversarial rigors of the justice system and thus are the most "valid." Or they simply shrug and figure they are "doing the best they can with what they have" and decide everything contributes to science in some way.

## How a Crime Becomes an Official Record

For a crime to become a part of an official record, the following must occur:

1. Unless someone walked in on the abuse, the victim *has to be aware* he or she was abused. This excludes cases involving victims who were unconscious, passed out, or significantly intoxicated. It also does not include crimes where the victim was an animal, an infant, or deceased.
2. The victim *has to have the ability to disclose*. This eliminates preverbal children and some severely disabled individuals, as well as victims suffering from some forms of mental illness and those with significant cognitive impairment, including dementia.
3. The victim *has to decide to disclose* what took place and then must follow through with the disclosure.
4. The person to whom the victim discloses *must believe the victim*.
5. The person who heard and believes the victim *must decide to contact the police* or a child abuse hotline. They cannot choose an alternative means for handling the issue— they cannot choose to handle the matter within their house of worship, within their family, or deal with it themselves. They must contact authorities.
6. The *authorities must "take the report"* and law enforcement officers must begin the process of collecting sufficient evidence to present for prosecution.
7. The prosecutor *must receive sufficient evidence* to prosecute AND *must decide to accept the case*.
8. The perpetrator *must be charged with a sexual offense* and not a lesser offense without the sexual component (simple assault, contributing to the delinquency of a minor).
9. The perpetrator *must not plead down* to a lesser offense.
10. The perpetrator *must be indicted* and a trial must take place.
11. The case *must not get thrown out* on a technicality, *or be dismissed* for lack of evidence, because the victim's mother does not want the child to testify, or due to staleness issues or a statute of limitations, etc.
12. The perpetrator *must be found guilty.*
13. The perpetrator *must lose all his appeals*.

Only after step 13 does the crime ever make it into official records. And the remarkable thing is as many as *84% of sexual assaults never make it to step 3*. More than any other crimes, sex offenses are crimes of secrecy because unlike other crimes, these acts typically go unreported. Factors such as shame, embarrassment, and fear prevent victims from coming forward and prevent offenders from

seeking help. Thus the crimes continue to accumulate, with the same victim or with others. Sometimes the crimes go unreported for generations, or are never disclosed.

There are only two ways to truly know what an abuser has done: (a) you must ask him, or (b) you must ask his victim(s). In atypical (but sadly, not rare) cases, there is a third way to definitively know what the offender has done: (c) you could watch the video of the assault. But—statistics or not—you will not be able to determine if someone found in possession of child exploitation material is a hands-on offender from his official record. You also will not be able to know if he is a voyeur, or an exhibitionist, or a rapist of adults. The only way you will ever know the extent of what he has done is to ask him.

Of course, some offenders will lie, which will leave you no better off than you were when you had just the records in the first place. That being said, although it surprises many people, most treatment providers can attest that with sufficient rapport sex offenders often will discuss what they have done. In fact, perhaps because of their desire to rid themselves of shame and/or a desire to not reoffend, many offenders seem almost impatient to get their crimes off their chest. And if the listening occurs in a nonjudgmental context, their self-report is typically accurate. Peterson, Braiker, and Polich (1981) found that "Inmates answered detailed questions about crimes they had committed (especially violent crimes) during the 3 years before their present prison terms. Internal consistency and good rates of response suggest that the accuracy of self-reported survey data was high."

## Myths About Internet Sex Offenders

There are number of myths clinicians maintain about sex offenders. As Seto (2008) notes, "Much of what laypeople and professionals believe about pedophiles and sexual offending against children. .. is not supported by empirical evidence" (p. xii).

## Internet Offenders Are Not Dangerous

"Your Honor, my client is not a danger to children. As most experts know, the best predictor of future behavior is past behavior, and there are no indications he has ever molested a child." For CEM offenders, those sentences are among the most harmful risk-relevant statements heard in our courtrooms. The predictive efficacy of "past behavior" works well with some types of crimes—driving under the influence of alcohol, assault on a law enforcement officer, and exhibitionism, for example. But the typical hands-on offender has no arrests on his rap sheet, and because of low base rates, such "predictions" are next to meaningless.

An equally dangerous assumption is describing the offenders whose sexual interests in children were identified through their online behavior as "just pictures" defendants. Significantly, the consequence of such heuristics is not simply a semantic or conceptual error—these individuals are often presented as being at lower risk for engaging in a hands-on sexual act against a child simply because they were apprehended as the result of an online investigation rather than an offline investigation.

I am certain that there are pedophiles and hebephiles who are sexually interested in youth yet manage to constrain their behavior to Internet offenses against children. For some of these men and women, hands-on abuse has not occurred simply because they do not have access to children in a setting where they can offend unobserved. Others may have the opportunity to express their fantasies in the "real world" but there exist sufficient obstacles that impede their desires to commit hands-on offenses (e.g., moral or religious prohibitions, fears of apprehension by law enforcement or detection by a significant other). In this respect, I have little reason to believe individuals who are sexually aroused by children but do not "act out" against minors offline are dissimilar from people who fantasize about other criminal acts but ultimately choose to refrain.

Here, however, an important factor must be considered: sexual predilections are biologically driven. That is not to say the etiology of every sexual interest is biological—the answer to that question is beyond the scope of the current chapter. Here, it is sufficient to simply recognize that these sexual interests and urges are components to a drive that cannot be "turned off" any more than any other biologically based appetite. As any reputable treatment provider will attest, the model for treating sex offenders is not a *curative* model but rather one focused on the offender's ability to *manage* his or her desires.

## The Internet Causes People to Become Pedophilic

Imagine you were asked to identify the gender of people to whom you are most attracted and then write down that gender on a piece of paper. Then you were asked to write down how many sexually explicit images of the opposite gender it would take before you "converted" to the other side. What would you write? 100? 1000? 7 million? Most people would refuse to write down a number; they would tell you "There is no number—it doesn't work like that!" If the point has not yet been made, consider how many images it would take for you to be led down the path toward becoming sexually attracted to a 5-year-old child.

The point is, people do not get talked into (or exposed into) their sexual orientation, fetishes, sexual preferences, and sexual interests. And with the exception of remaining attracted to people in our age group as we age, people's sexual interests remain the same throughout the lifespan. No one wakes up at age 45 suddenly afflicted with a bad case of pedophilia. And the Internet does not cause anyone to suddenly become aroused to children. While online behavior can reinforce latent sexual interests, it appears from extant research that those predilections have existed since adolescence. The Internet provides stimuli that allow individuals to reinforce their fantasies, desires, and urges. It can strengthen impulses, but the things people are aroused to do not vary significantly.

## The Polygraph Should Not Be Used

Any comprehensive literature search on the psychophysiological detection of deception will result in studies that describe the limitations of the polygraph. Although this research is fraught with methodological problems, the studies are often cited as evidence of the instrument's shortcomings. While a full assessment of the validity and reliability of the instrument is beyond the scope of the current chapter, the author has found a much more pragmatic reason to justify the use of the polygraph: as an investigative tool, it works.

For the purposes of sex offender assessment and management, it seems wise to remove ourselves from the debates about the degree to which examiners can be fooled, or if individuals physiologically react in ways that lead to inconclusive results. We do not need to debate the merits of the polygraph's utility as a "lie detector"—that issue is separate from the one at hand. Instead, we should focus on the most pragmatic reasons to use the tool—whether it is effective as an interview tool to unearth undetected behaviors an individual is hiding (criminal and otherwise). The answer is an unequivocal "yes."

The current author examined the issue in a paper that described what my colleagues and I termed "tactical polygraph" because of the need to conduct a test strategically and quickly[2] (Bourke, Fragomeli, Detar, Sullivan, Meyle, & O'Riordan, 2014). We found the polygraph significantly increased admissions about previously undetected sexual crimes. Importantly, we also found the test helped identify victims who had not disclosed their abuse, including 97 victims who were still minors, allowing social service intervention. Ten of those children were being currently abused by the subject, and because of the tactical polygraph those children were rescued from that ongoing abuse.

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[2]Some critics feel the term sounds aggressive, but this appears attributable to a lack of understanding of the definition of "tactical," which is not solely associated with militaristic acts (e.g., tactical building entry) but also refers to "small-scale actions serving a larger purpose" and "adroit in planning or maneuvering to accomplish a purpose" (Tactical, 2017).

At the conclusion of our tactical polygraph study, nearly 58% of our subjects, all of whom were the so-called "child pornography" or "hands-off" offenders, admitted committing hands-on abuse of at least one child. These results supported the findings of a previous paper Andres Hernandez and I conducted in the federal prison system where 85% of men arrested for child pornography offenses acknowledged committing hands-on offenses (Bourke & Hernandez, 2009). A recent study by DeLisi et al. (2016) also examined the utility of the polygraph in detecting hidden hands-on abuse; the researchers found 69% of their sample of federal "child pornography" offenders admitted committing hands-on abuse when the polygraph was implemented.

## Conclusion

While it is technically correct that the crimes of possession and distribution of child exploitation material are hands-off offenses, and child molestation is a hands-on offense, it is a mistake to assume the former perpetrator is a hands-off offender and that the second abuser is a hands-on offender. The groups are not dichotomous and, based on the most accurate empirical research (i.e., studies where information is collected from both official criminal history as well as self-report, and using a form of veracity testing), at least two-thirds of subjects (58–85%, with the 58% a likely underestimate) arrested for possession of CEM fit both categories (Bourke & Hernandez, 2009; Bourke, Fragomeli, Detar, Sullivan, Meyle, & O'Riordan, 2014; DeLisi et al. 2016).

Let us consider a hypothetical study analogous to the child pornography ("hands-off") and child abuser ("hands-on") false dichotomy. In this study, researchers plan to examine differences between drug users and non-drug users. They acquire a sample of individuals who were arrested and convicted of being under the influence of a controlled substance; to wit, crack cocaine. They call this group "drug users." They also put together a comparison sample of people convicted of possessing drug paraphernalia (i.e., crack cocaine pipes). Assuming the crimes of conviction accurately describe the two groups, they name the second group "drug paraphernalia collectors."

As ridiculous as it is to assume the second group are "non-drug users" and to view them as "collectors," it is similarly foolish to label those arrested for possession of child pornography "hands-off offenders" and to view them as "collectors." Possession of drug paraphernalia and possession of child exploitation material are each indicative behaviors for adjunctive crimes. We should not assume the collections are the end point—the paraphernalia suggests the person is interested in using drugs, and the CEM "collections" suggest the person fantasizes about abusing children.

It is interesting that some of my colleagues who complain the loudest when CEM possessors and distributors are portrayed as dangerous, and who claim the men are "just curious" or explain away their behavior in some other manner, also balk when I ask them if, in that case, they would allow those men to babysit their children. It is ironic how willing some mental health professionals are to write reports explaining how someone is at low risk because he "only" possessed CEM but then, when it applies to them, quickly change their tune.

To give another example—if a parent finds a hidden stash of magazines under her child's bed and notices the magazines are devoted to the drug culture and methods for growing marijuana, does she immediately breathe a sigh of relief because he is obviously a *collector of drug-related material* and therefore not a *drug user*? Of course not. Any good parent would consider the material indicative of their child's interest in marijuana and would assume that (a) their child is already using marijuana, or (b) he is likely to use the drug if given the opportunity. The parent would not assume *collectors* are different from *users,* and certainly would not believe possession of the magazines somehow mitigates the teen's desires to get high. Of course, whether the material is printed or obtained online is irrelevant. A parent discovering her child's online search history contains hundreds of searches relating to the

construction of homemade pipe bombs, school shootings, and suicide would be equally (if not more) concerned.

This chapter addresses only some of the common misunderstandings in the field of child exploitation. Unfortunately, these and other pervasive myths continue to influence judges and lawmakers, which of course affects case law and policy. As technology continues to evolve and offenders continue to find new ways to exploit youth, it becomes imperative to clarify biased or inaccurate assumptions before they take root. Empirical investigations using accurate and meaningful data, as well as qualitative studies to examine the underlying issues, are collectively important as we attempt to protect the world's young people who have not been victimized and secure justice for those who have. As Salter (2008, p. 76) once observed about those who abuse children, "No one has all the answers about how to stop them, nor even why all of them do what they do. But at least we should have the decency as a people to stop making excuses for them."

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# Part V

# Family Violence

# Sibling Abuse

Mandy Morrill

## Description of the Problem

While other forms of domestic violence, such as child and partner abuse have been widely recognized by the clinical world as matters of a serious nature (which has been demonstrated through research, intervention programs, and public outreach), sibling abuse has remained largely ignored over the past 40 years (Ammerman & Hersen, 1991; Caspi, 2012; Kiselica & Morrill-Richards, 2007; Morrill & Bachman, 2013; Phillips-Green, 2002). As sibling abuse has not received much recognition by professionals and, consequently, the public, it is a phenomenon often dismissed and misunderstood. Given the hidden nature of sibling abuse, this form of domestic violence tends to last over a long period of time and is may result in devastating long-term consequences. The handful of studies that have been conducted related to sibling abuse have found that both survivors and perpetrators experience a higher risk of developmental delays, depression, low self-esteem, deficits related to interpersonal competencies, drug abuse, and dating violence than those who have not survived or perpetrated sibling abuse (Caffaro & Conn-Caffaro, 2005; Caspi, 2012; Duncan, 1999; Morrill-Richards, 2009; Morrill-Richards & Leierer, 2010).

The limited studies that have been conducted related to sibling abuse indicate sibling abuse is the most common form of familial violence (Kiselica & Morrill-Richards, 2007; Straus & Gelles, 1990; Wiehe, 2000). Straus and Gelles (1990) piloted one of the most extensive national survey studies in America on violence in families in which they interviewed 8175 families and found 40% of children between the ages of 3 and 17 engaged in severe acts of physical violence against a brother or sister, and 85% of children regularly engaged in verbal aggression against a sibling. By contrast, this same study found 2.3% of parents engaged in what would be considered severe violence against a child. Goodwin and Roscoe (1990) used the Conflict Tactics Incidence Scale (Straus, 1979) to explore the prevalence of family abuse as reported by 272 high school students. Results of the study found 60% of those surveyed reported engaging in some type of sibling abuse as either a perpetrator or a survivor. Wiehe (1998) conducted a comprehensive study connected to familial violence, in which his findings suggest as many as 53 out of every 100 children are perpetrators of some type of sibling abuse.

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## Sibling Relationships

Why is sibling abuse so pervasive? Perhaps the biggest reason sibling abuse is widespread is the fact that our relationships with siblings are unique in longevity. Caffaro and Conn-Caffaro (2005) estimated approximately 85% of the American population is raised with at least one sibling. Trends in family development within the USA suggest the majority of adults now have more siblings than children; and adults are delaying marriage for a longer period of time, which means our siblings remain the most influential peer relationship for a longer period of time than other relationships we have throughout the life span (Caffaro & Conn-Caffaro, 2005; Kiselica & Morrill-Richards, 2007; Newman, 1994). Johnston and Freeman (1989) found positive sibling relationships have a beneficial effect on children and negative sibling relationships have an adverse impact on children. Positive sibling relationships do not mean an absence of conflict. In fact, a healthy sibling relationship includes a normal and mild amount of sibling rivalry. Positive sibling relationships are conducive to a supportive environment in which healthy development can occur. Not surprisingly, in contrast to positive sibling relationships, negative sibling relationships often evoke shame, fear, and hopelessness (Johnston & Freeman, 1989; Kiselica & Morrill-Richards, 2007). If a negative sibling relationship is present, there is a possibility sibling abuse may be occurring (Kiselica & Morrill-Richards, 2007).

The sibling relationship itself is also more challenging to define than are some other roles within the family. Siblings can be full siblings (sharing the same biological parents), half siblings (sharing one parent), stepsiblings (related through the marriage of parents), adoptive siblings, foster siblings, or fictive siblings (while not biologically related, the living situation has fostered a sense of being considered as siblings). Caffaro and Conn-Caffaro (1998) defined the sibling relationship complexities well stating the sibling relationship consists of "all interactions, verbal and nonverbal, of two or more individuals who are members of th same sibling subsystem and who have parents in common" (Caffaro & Conn-Caffaro, 1998).

In addition to the unique nature of the sibling relationship, the fact that sibling abuse is not known in the public forum leads to parents, guardians, teachers, and clinicians often dismissing abusive sibling acts as normal sibling rivalry, whereas other forms of domestic violence are more easily recognized through boundary violations and addressed (Morrill-Richards, 2009; Wiehe, 2000). Siblings also tend to have unmatched access to one another, with many sharing bedrooms and daily access to one another, as parents cannot typically monitor all the actions of their children every minute of the day. As children get older, parental figures will often leave one child in charge of watching younger siblings, which also creates access for the offender (Caffaro & Conn-Caffaro, 2005; Caspi, 2012; Morrill, 2014).

One challenge in regard to identifying and treating sibling abuse is that it is a phenomenon not easily defined. There are complexities that must be addressed, as normal sibling rivalry is a healthy part of development and should not be mistaken for abusive behavior. What, then, is the difference between normal sibling rivalry and sibling abuse? Sometimes, it may not be a clear distinction to make; however, there are three aspects of behavior that need to be considered when determining if an interaction is abusive or not: perception, intent, and severity (Morrill-Richards, 2009; Wiehe, 2000). Perception refers to how each sibling frames the interaction. For example, if one sibling involved in the sibling dyad views the behavior as abusive, regardless of his or her role as survivor or perpetrator, a dynamic beyond the scope of "normal" sibling rivalry is likely present. Intent refers to what a sibling hoped to accomplish through an action or behavior. In a situation where sibling abuse may be occurring, the intent of the perpetrating sibling is primarily to cause harm rather than to gain access to limited family resources such as space, time, and affection. The final piece of behavior to be considered is severity. Severity is related to the duration and intensity of the sibling action. As severity increases there is greater probability the sibling relationship is abusive in nature (Caffaro & Conn-Caffaro, 2005; Morrill-Richards, 2009;

Simonelli, Mullis, Elliott, & Pierce, 2002; Wiehe, 2000). Perception, intent, and severity exist within three primary categories of sibling abuse: psychological, physical, and sexual.

## Psychological Sibling Abuse

Psychological sibling abuse presents a particular challenge to define as it is the most likely form of abuse to not be recognized by parents and is often dismissed as normal sibling rivalry (Wiehe, 1997). Whipple and Finton (1995) describe psychological abuse as distinct from "normal" behavior based on consistency and intensity. Examples would include words and actions expressing degradation and contempt that have an impact on one's sense of well-being (such as creating insecurity or a lack of self-esteem). This behavior would include daily harassing statements such as "no one in this family cares about you and we would all be happier if you were dead," and "if you don't do my chores this week I am going to hurt your pet rabbit" (Morrill & Bachman, 2013; Morrill-Richards, 2009; Whipple & Finton, 1995; Wiehe, 1997). Wiehe (2000) interviewed 150 adult survivors of sibling abuse, and found that 78% of the subjects had experienced psychological abuse including belittling, intimidation, provocation, destroying possessions, and torturing and killing pets. Clearly, psychological sibling abuse can be severe and intense, and can have consequences lasting long into adulthood.

## Physical Sibling Abuse

Wiehe (1997) defined physical abuse by a sibling as one member of a sibling dyad deliberately causing physical harm to the other sibling. In the case of sibling abuse, the intent is to cause harm to the other sibling with a primary motive of allowing the perpetrating sibling to obtain a sense of power and control within that relationship. As it is not unusual for siblings to engage in one-time incidents of physical aggression in order to obtain access to limited family resources, determining actions as physically abusive should not include isolated incidents. The intent to harm for the sake of injury, the perception by a sibling that the action is abusive in nature, and a repeated pattern of severity must be present in physical sibling abuse (Morrill & Bachman, 2013; Wiehe, 2000). Physical abuse may include acts such as shoving, hitting, slapping, biting, kicking, hair pulling, scratching, and pinching (Caffaro & Conn-Caffaro, 2005). More severe forms of physical abuse often include a weapon to inflict injury such as coat hangers, belts, knives, razors, scissors, and guns (Wiehe, 2000).

## Sexual Sibling Abuse

Defining the specifics of sibling sexual abuse has lacked clarity, which has been a hindrance when attempting to deal with the issue. Morrill (2014) conducted a study in which she defined sibling sexual abuse to include nonphysical forms of sexual abuse, such as forced exposure to pornography and sexual leering. Several studies have found that unwanted sexual suggestions, being forced to view pornography (particularly depicting sexually violent acts), and sexual leers can be as harmful psychologically as forced physical sexual contact, with the impact lasting long in to adulthood (Flood, 2007; Leibowitz, 2012; Morrill, 2014; Seto, 2010; Ybarra & Mitchell, 2005). Given the above, it is critical to define sibling sexual abuse in a way that encompasses both physical and nonphysical forms of the abuse. Sibling sexual abuse is any physical or nonphysical sexual behavior in a sibling dyad that is not age appropriate, not transitory, and not motivated by developmentally appropriate curiosity. Examples of this type of abuse include forced exposure to pornography, sexually harassing, indecent exposure, forced sexual contact of any nature (oral, anal, vaginal), digital penetration, leering, and inappropriate touching (Caspi, 2012; Morrill, 2014; Phillips-Green, 2002; Wiehe, 1990).

## Historical Background

When compared with other forms of domestic violence, sibling abuse has not been given much attention, historically. While the feminist movement of the 1970s shifted the issue of violence within the home from being a private matter to remain within the family, to a matter of the public conscious of mainstream America, little consideration was given to the issue of sibling abuse (Ammerman & Hersen, 1991). As a result of the tremendous advances made in regard to family violence, child abuse, elderly abuse, partner abuse, and dating abuse are now recognized by clinical professionals as significant and widespread problems with consequences lasting well in to adulthood (Adler & Schutz, 1995; Finkelhor, Hotaling, Lewis, & Smith, 1990; Morrill-Richards & Leierer, 2010; Wiehe, 1990). In spite of the progress made to recognize, understand, and intervene with a variety of types of domestic violence over the last 40 years, sibling abuse has been largely ignored, and therefore, lags quite far behind the knowledge, awareness, interventions, and prevention programs connected to other types of abusive relationships (Ammerman & Hersen, 1991; Morrill-Richards, 2009; Phillips-Green, 2002).

Straus, Gelles, and Steinmetz conducted the first study related to sibling abuse in 1980. This research indicated over 85% of siblings engaged in either verbal or physical abuse against a sibling on a regular basis. It would seem this study would spawn a surge of interest; however, the study of sibling abuse fell to the wayside, in spite of these compelling findings. The lack of ongoing research around sibling abuse for so many decades during which the overall study of domestic violence was exploding is confusing to understand is the primary reason the awareness and understanding of the phenomenon is limited (Kiselica & Morrill-Richards, 2007). Haskins (2003) found a prime reason for the lack of research on sibling abuse to be connected to a lack of funding. While every other form of abuse continues to receive healthy funding support for research, the funding made available for research on sibling abuse has been reduced to virtually nothing since the mid 1980s. This reality is a

primary reason why one of the only empirical studies conducted on sibling abuse was that of Straus, Gelles, and Steinmetz (1980). In order for sibling abuse to be studied with accuracy and to assess current trends and needs for effective treatment, it is essential to secure more government funding for studying this type of abuse.

Without knowledge, sibling abuse has been tolerated and dismissed throughout time. Lack of acknowledgment can lead to devastating consequences later in life for both the survivor and offender, which may include issues with self-esteem, conflict resolution, intimacy, trust, impulse control, depression, anxiety, and addiction (Morrill-Richards, 2009; Morrill-Richards & Leierer, 2010). As sibling abuse has not been part of the mainstream dialogue, parents have had great difficulty making the distinction between normal sibling rivalry and sibling abuse. Parents may inadvertently encourage abusive behavior thinking expressions of aggression are just a normal part of being a brother or sister. When parents and guardians are given no knowledge that there is a line where rivalry ends and abuse begins, children reporting abusive actions of another sibling to their parents are often dismissed, not out of a lack of caring, but rather a lack of knowledge (Caspi, 2012; Morrill, 2014; Morrill & Bachman, 2013). It is clear as the exploration of sibling abuse expands, outreach and education programs must also be available to help parents and guardians learn about this type of abuse.

## Epidemiology

As is the case with other types of abuse, there are many causes and risk factors for sibling abuse. The family environment can play a huge role in the health of the sibling relationship. If a family exists within a culture of violence in which there are multiple layers of abuse occurring, such as parent to child and partner to partner, there is a greater likelihood of sibling abuse happening than in families where this type of environment does not exist (Johnston & Freeman, 1989; Whipple & Finton, 1995). Living in a situation that embraces an abusive existence can be toxic for a child as

they may then model the use of intimidation and cruelty for survival, which is often then expressed towards a sibling (Wiehe, 2000). Children who have experienced sibling abuse as either a survivor or offender have reported a high rate of experiencing some other form of abuse within the family. If a child is being abused by a parent, he or she may then act out in response to that abuse and abuse a sibling (Horne & Sayger, 1990; Kiselica & Morrill-Richards, 2007).

Competing for family resources is a normal expectation in families with siblings. This competition is reflective of a desire for a sibling to be recognized as the best at something and win favor and accolades from other members in the system. The most common resources siblings compete for are food, space, and emotions. When siblings do not differentiate and develop too many of the same interests, conflict often intensifies over the rewards given of these resources. When the competition for limited resources becomes severe, and is reinforced by other members of the family system, siblings may become abusive to gain control of these resources (Kiselica & Morrill-Richards, 2007; Newman, 1994; Wiehe, 1997).

Several other factors behind the occurrence of sibling abuse are connected to the structure of the family. A family environment that promotes power imbalance and rigid gender roles is a risk for the development of sibling abuse (Bank & Kahn, 1982). Maladaptive parental behavior such as a lack of supervision, differential treatment of siblings (having an identified "good" child and a "bad" child), and the normalization of abuse may be a key factor in the prevalence and severity of sibling abuse. Within these situations, siblings often feel neglected, have low self-esteem, and develop resentment towards another sibling (Bank & Kahn, 1982; Felson, 1983; Leder, 1993).

## Characteristics of the Offender

Offenders of sibling abuse are often both victims and architects of coercive control (Patterson, 1975). The highest rate of sibling abuse exists in families for which other types of abuse are present, such as child abuse or partner abuse (Hotaling, Straus, & Lincoln, 1990). Offenders implement negative interactions with their siblings four times as often as positive interactions. These interactions are similar to bullying and are often a reaction to the fact that they have been abused by a parent, another sibling, or someone outside of the family (Heilbrunn, 1986; Whipple & Finton, 1995). The abuse from the offending sibling is often a way for the offender to release their own anger from being abused, and to express resentment towards a sibling he or she may view as unjustly favored (Green, 1984; Hotaling et al., 1990; Kiselica & Morrill-Richards, 2007; Patterson, 1982).

In order to understand who offenders of sibling abuse are, it is first necessary to consider some of the myths regarding gender and abuse. Traditionally, the most accepted perspective related to family violence attributes this violence to social structures that favor men and have historically supported men to use violence against women to maintain control (Dobash & Dobash, 1979; Gilfus, Trabold, O'Brien, & Fleck-Henderson, 2010). In spite of this well-accepted belief, studies have supported that conceptualizing family violence in this way is no longer accurate. Hamel (2009) found the patriarchal model incorrectly assumes men offend in the vast majority of family abuse considered to be severe. Robertson and Murachver (2007) found support for the idea of there being few differences between men and women who abuse in regard to frequency, severity, and injury. In one of the largest studies on family violence, Straus and Gelles (1990) found mothers, rather than fathers, were more often the offenders of physical abuse within the family. Several recent studies contend abuse is perpetrated at a relatively equal rate between men and women (Gilfus et al., 2010; Hamel, 2009; Morrill & Bachman, 2013). Being open to the likelihood that men are not the only offenders in abusive acts is critical to consider when attempting to understand who sibling offenders may be.

While information regarding gender differences in relation to the offense of sibling abuse specifically is somewhat limited, available data suggest there are no differences in the likelihood

of males or females perpetrating sibling abuse. Morrill and Bachman (2013) used an altered version of the Conflict Tactics Scale (Straus, 1979) to determine gender differences in perpetration of each of the three types of sibling abuse. No difference was found in regard to offending psychological and physical sibling abuse. However, women were actually found to demonstrate a higher level of propensity and severity in regard to perpetration of sibling sexual abuse. While caution must be used when considering one exploratory study, the results support the findings of Hamel (2009), Robertson and Murachver (2007), and Straus and Gelles (1990), all of which purport that men have been inaccurately depicted as the overwhelming perpetrators of abuse. When assessing for the possibility someone may be involved in offending sibling abuse, it cannot be assumed that being a female eliminates the ability to be the abuser.

In addition to females having as much a propensity to abuse a sibling as a male, it is important to acknowledge another misconception in family violence, which is that men are not abused. Cho and Wilke (2009) used data from National Crime Victimization Surveys over the span of 15 years and found, in spite of their tendency to report incidents of abuse less frequently, men were more likely to experience a greater frequency of abuse considered to be severe than were women. Hamel (2009) found that men sustain approximately one third of all physical injuries related to family violence. Bowman and Morgan (1998) administered a self-report survey on violence to college students and used the results in conjunction with outcomes gathered from the 1994 Bureau of Justice National Conference on Domestic violence to estimate approximately two million men are physically abused each year. Straus and Gelles (1990) discovered a trend in the USA indicating that while male on female violence decreased during the period of 1975–1985, female on male violence increased during that same time period. Understanding how abusive trends are changing is an important part in identifying both who offenders and survivors are of sibling abuse (Morrill & Bachman, 2013).

## Family Patterns

Many factors supporting the existence of sibling abuse seem to be attached to the larger family system (Hoffman, Kiecolt, & Edwards, 2005: Hotaling et al., 1990; Kiselica & Morrill-Richards, 2007). Specifically, some actions by parents or guardians can promote the development of sibling abuse. Parents will often minimize or ignore reports of abusive sibling behavior as simply normal, which is not surprising given the limited attention abusive sibling acts have been given compared to other forms of familial abuse (Caspi, 2012; Finkelhor, Ormrod, Turner, & Hamby, 2005). Actions clearly viewed as abusive in parental abuse, spousal abuse, and elderly abuse are minimized as just the way brothers and sisters are (Caspi, 2012). As such, parents may dismiss sibling abuse as simply what siblings do and a normal part of development. While more research has been conducted in recent years to uncover the severity of the abusive acts of siblings, and how these acts differentiate from normal sibling rivalry, the limited knowledge that currently exists on the matter diminishes the gravity of the actions (Caspi, 2012; Hardy, 2001; Kettrey & Emery, 2006). When a child reports an abusive act of a sibling and is then told by a parent or guardian to "stop being dramatic," or somehow given a message that the experience is not a big deal, that child often internalizes the messages of the family and carries the notion that it is acceptable to be treated in an abusive way into adulthood and other relationships throughout the life span (Caffaro & Conn-Caffaro, 2005; Caspi, 2012; Kiselica & Morrill-Richards, 2007; Morrill-Richards, 2009). In addition, when a report of sibling abuse is made, parents may simply not believe what is being reported, act with indifference to the report, or blame the victim of the action. Alternately, parents may respond inappropriately by abusing the offender of the reported abuse (Ammerman & Hersen, 1991; Kiselica & Morrill-Richards, 2007; Whipple & Finton, 1995).

One important aspect of the family structure to consider is the environment in which polyvictimization may be occurring. It is not uncommon for those experiencing sibling abuse as either a

survivor or offender to be experiencing some other type of abuse within the family (Caspi, 2012; Finkelhor, Ormrod, & Turner, 2007). The abuse may often be connected to another sibling, as sibling abuse is likely a precursor to abusive familial patterns throughout one's life such as dating violence, spousal abuse, and child abuse (Caspi, 2012). Several studies support the notion that if an abusive family environment exists, the risk for sibling abuse goes up significantly (Ammerman & Hersen, 1991; Caspi, 2012; Kiselica & Morrill-Richards, 2007; Patterson, 1982; Whipple & Finton, 1995; Wiehe, 2000). While a history of victimization does not equal causation, sibling abuse offenders may be acting out previous abuse experiences, thus highlighting the importance of examining the interplay of abuse history and abusive experience with a sibling (Caffaro & Conn-Caffaro, 2005).

Families that exist in a context of chaos are at a higher risk for sibling abuse being present than those that do not. In a chaotic or disorganized family system, the family exists moving from one crisis to another, with little sense of control of stability (Kiselica & Morrill-Richards, 2007; Whipple & Finton, 1995). Deater-Deckard, Dunn, and Lussier (2002) found much higher rates of sibling hostility in single parent families, supporting the notion that parental stress and overburdened caretakers tend to exist in a more disorganized family structure often assigning parental roles to some of the children out of necessity. A parentified child may begin to resent the other siblings in their charge, and in turn, could use their position of authority to act out feelings of anger and frustration (Kiselica & Morrill-Richards, 2007; Whipple & Finton, 1995).

The type of relationship boundaries that exist within a family system are additional factors to consider in regard to the presence of sibling abuse. Interpersonal boundaries regulate how emotional interactions and information flow within the family system and among family members (Minuchin, 1974). Relationship boundaries exist on a continuum from enmeshment (extreme involvement with members) to disengagement (extreme disconnection with members). Not only are there boundaries that

exist for each individual within the family, but there are also boundaries connected to each subsystem (such as the boundary that exists between the parental subsystem and the child subsystem). When families are functioning in a healthy way, boundaries are flexible allowing needed access to one another for support and communication while at the same time balancing contact with differentiation and autonomy (Kiselica & Morrill-Richards, 2007; Minuchin, 1974). In families where sibling abuse exists, it may be the case that at least one parental figure is enmeshed with a child and is responding with inappropriate intensity and frequency to situations. This dynamic often creates a situation in which that child becomes a scapegoat, or the "bad" child and the mark to draw abusive behavior from all family members, including siblings (Horne & Sayger, 1990; Kiselica & Morrill-Richards, 2007). Equally harmful, when sibling abuse is present parents may be disengaged from the children, providing very little (if any) supervision setting up a dynamic in which the sibling subsystem must navigate through how resources are distributed and conflict resolution on their own (Horne & Sayger, 1990; Patterson, 1982). Both enmeshment and disengagement typically support the use of coercive control. As such, when assessing for sibling abuse, it is essential for clinicians to learn about the boundaries that exist within the family system as well as to help the entire family learn new ways to respond to and communicate with each other (Caffaro & Conn-Caffaro, 1998; Horne & Sayger, 1990; Kiselica & Morrill-Richards, 2007; Patterson, 1982).

Interpersonal triangles are closely connected to the boundaries that exist within the family. A triangle exists when a third person is brought in to a dyad to divert intensity away from that dyad. The new person brought in to the dyad become the focus of attention and serves to lessen the sense of immediate stress; therefore, serving as a means for stabilization for the dyad (Caspi, 2012; Titelman, 2008). All family systems experience triangles at some point in time, and triangles are not always destructive in nature. Problems arise when family triangles become associated with rigid rules and common patterns of alliances.

When a dysfunctional triangle such as this type exists, power and control become central issues within the family and emotional resolution to problems becomes stunted (Guerin, Fogarty, Fay, & Kautto, 1996). Guerin et al. (1996) identified an example of a family triangle that could serve as a catalyst for sibling abuse to occur. When two siblings are in a triangle with an abusive parent, the situation is not only dangerous, but promotes stress between the siblings involved as one child is typically the target of the parental abuse and the other child is deemed as the "favorite" child. Such a pattern in a triangle fosters anger and resentment between siblings (Guerin et al., 1996).

Another type of triangle involves parenting style in which differential treatment of children is encouraged. Siblings are, by nature, existing in a competitive environment and it is normal for siblings to compete for family resources and want to feel they are the best at something in their parents eyes (Caspi, 2012; Dunn & Plomin, 1991). However, when parents fall in to a pattern of identifying siblings in sets of good vs. bad, difficult vs. easy, or successful vs. failure, the normal competition for resources in the family becomes heightened as each member of the sibling subsystem begins to compare interests and abilities to an extreme, which may escalate to conflict and abuse (Whipple & Finton, 1995; Wiehe, 1997). Further, when these types of family patterns exist, it is typical that the siblings have developed similar interests academically and socially, creating more tension and competition. When families focus more on supporting one interest or one goal rather than embracing the individuality of one child, polarity will almost certainly develop within the sibling subsystem. In fact, it has been shown that siblings who are able to diversity interests, and, in turn, have those diverse interests embraced by the parental figures in the family, are much more easily able to resolve normal conflict and gain needed access to family resources such as time, affection, and approval (Caspi, 2012; Sulloway, 1996). When parents are not able to support differences in their children, the family system is at greater risk for experiencing sibling abuse.

## Assessment and Diagnosis

The assessment of sibling abuse can be challenging given it is not typical for individuals or families to walk in to a clinician's office and identify experiencing sibling abuse. As such, the clinician's ability to recognize and assess the presence of sibling abuse underlying other presenting issues is essential for effective treatment. The assessment will also vary depending on when a clinician is meeting with the survivor or offender: whether as an adult or a child (Caffaro & Conn-Caffaro, 2005; Caspi, 2012). Regardless of when contact is made, a thorough assessment will begin with an acknowledgment that sibling relationships are clinically significant, and the perception and interpretation of abusive acts involving siblings are valid and matter to the clinician. Whether the abuse is determined to be overt (the identified issue), or covert (not initially identified as a presenting issue), the clinician must have the ability to attend to the issues of sibling abuse (Caffaro & Conn-Caffaro, 2005; Caspi, 2012).

Assessment of sibling abuse should be a regular piece of every comprehensive clinical intake (Caspi, 2012; Kiselica & Morrill-Richards, 2007; Morrill, 2014; Morrill-Richards & Leierer, 2010). Caspi (2012) outlined six primary aspects of sibling abuse to address in every intake with questions ranging from the broad to specific. The first area to consider in this assessment model is behavior, in which specific questions are asked regarding name calling, hitting, and threatening. Intent is the second area for consideration. Questions related to intent specifically address if a sibling wanted to cause harm, or if it was just fun and serve to distinguish between normal developmental rivalry and abuse. The third area to explore is the actual harm inflicted through questions directed specifically towards understanding who the offender may be and whether the actions are individual or mutual. Frequency and severity of the abuse are the next aspects for consideration in this type of assessment. Frequency charts and rating scales for severity may be used to help identify the patterns of the abusive actions. The last component to assess is fear, which is done simply by asking if the client

feels afraid to be alone with the sibling. If the response supports the sibling fears being along with a brother or sister, there is high probability some form of sibling abuse is happening. An important note is that a denial of fear does not mean the absence of abuse as there may be many reasons to respond in this manner, although there are very few reasons to state one is afraid of a sibling unless some abusive interaction is taking place (Caspi, 2012).

As much of the work involving sibling relationships includes the family, it is important to assess the repetitive interactional patterns, or interactional sequences, of the family system (Caspi, 2012; Minuchin, 1974). An example of this type of assessment would be to observe the family as they attempt to complete a task assigned by the clinician. Families will take on a variety of roles and this type of observation will allow the clinical professional to identify how the family system functions: Who takes on a parental role? How is conflict resolved? Who is the scapegoat? Who is the hero? (Nichols, 2013). This type of assessment may also be done by having a family recall a recent argument and having the clinician walk the family through each piece of the process of how things happened. Again, the patterns of functioning within the family will unveil much information related to sibling interactions (Caspi, 2012).

The Sibling Abuse Interview (SAI) is an additional means of assessment and was developed by Caffaro and Conn-Caffaro (1998). The SAI is a comprehensive interview tool that can be used with the entire family system. The questions allow for exploration of characteristics that may relate to abusive sibling behavior and include evaluations of the family system as a whole, individual family members, the parental dyad, and each sibling dyad. This type of assessment is considered to be a sibling-informed approach as well as an ecological one in that there is an emphasis on the individual's unique place within the system as well as how the interaction of relationships may or may not enforce abusive sibling dynamics (Caffaro & Conn-Caffaro, 1998; Nichols, 2013).

## Course and Prognosis

Several studies indicate the long-term impact of sibling abuse when left untreated is serious on multiple levels. Children who are perpetrators of abuse are at high risk for engaging in bullying behavior, developing conduct disorders, and antisocial behaviors (Duncan, 1999; Horne & Sayger, 1990; Horne & Webster, 1999; Morrill-Richards, 2009). Additionally, the experience of being a sibling abuse offender can be linked to academic issues, juvenile delinquency, and an increase in medical problems (Duncan, 1999; Kiselica & Morrill-Richards, 2007). Whipple and Finton (1995) found offenders of sibling abuse had a greater rate of drug and alcohol use than those who were not engaging in this type of abusive behavior. Adolescents who have not received any intervention to help treat sibling abuse may experience challenges related to emotional expression, an increase in anxiety, dating violence, and a high risk for depression (Caspi, 2012; Morrill-Richards & Leierer, 2010; Snyder, Bank, & Burraston, 2005).

Survivors of sibling abuse are in great danger of being arrested as juvenile runaways and being involved in abusive relationships throughout their lifetime, if there is not clinical intervention to deal with the abuse experience (Kiselica & Morrill-Richards, 2007; Widom & Ames, 1994). In particular, survivors of sibling sexual abuse are likely to have difficulty connecting emotionally in relationships and have issues trusting family and friends. Sibling sexual abuse survivors often have trouble identifying a line between pleasure and pain and are at greater risk of engaging in dangerous, high risk activities than those who did not experience this type of sexual abuse (Morrill, 2014).

Both offenders and survivors of sibling abuse have been found to be at high risk for developmental delays related to cognitive functioning, language development, and motor coordination (Kiselica & Morrill-Richards, 2007; Whipple & Finton, 1995). Morrill-Richards and Leierer (2010) conducted a survey study of college students in which they found experiencing sibling

abuse as either a survivor or offender had a significant impact on long-term perceptions of well-being. Morrill-Richards (2009) completed research related to the long-term consequences of experiencing sibling abuse on self-esteem and interpersonal competencies. The results indicate that engaging in sibling abuse as either a survivor or offender has a significant and negative impact on self-esteem as one enters early adulthood. Further, the same study found a significant and negative relationship between four domains of interpersonal competency (initiating relationships, providing emotional support, asserting influence, and conflict resolution) and experiencing sibling abuse, regardless of being a survivor or offender (Morrill-Richards, 2009). It seems clear that the impact of sibling abuse, when left untreated, has an effect lasting into adulthood.

## Treatment

Treating sibling abuse is complex and is typically conceptualized as a systemic problem for which the entire family will need intervention (Horne & Sayger, 1990; Kiselica & Morrill-Richards, 2007; Wiehe, 2000). It is essential for the mental health therapist to establish strong rapport with the entire family and establish a comprehensive treatment plan that will usually include family therapy sessions, individual sessions for each member, couples therapy sessions, and group therapy sessions targeted specifically for the survivor and the offender, separately (Newman, Horne, & Bartolomucci, 2003; Ross, 1996; Wiehe, 2000). In addition to ensuring the safety of the survivor of the abuse, the mental health professional needs to help the family develop healthy conflict resolution techniques and identify the external stressors they face which may be inhibiting coping mechanisms (Johnston & Freeman, 1989; Kiselica & Morrill-Richards, 2007; Ross, 1996).

Wiehe (1997) developed an intervention approach for working with families in which sibling abuse has been identified as an issue of concern. The program is called SAFE: S: stope aggressive actions when they occur, A: assess the

situation and allow each member involved to discuss their perspective of the event, F: find out what will aid siblings in deterring dysfunctional interactions, E: evaluate how the rules are working, regularly and consistently. Some specific goals of this intervention are to help parents learn age-appropriate expectations of children, not blame the survivor or the offender, attend to reports made by the survivor, and deal with relationship conflict through therapy sessions outside of the sibling subsystem. Additionally, the process intends to help siblings learn to resolve issues through safe communication, identify non-competitive activities to engage in, and learn rules to respect one another's personal space. The abusive sibling will be provided educational materials regarding the real harm of abusive acts and will be encouraged to heal from any of his or her own abusive experiences. The surviving sibling will have his or her feelings validated, learn some assertiveness training, and work towards eliminating self-blame for what has happened (Wiehe, 2000).

Caspi (2012) developed a Positive Behavior Approach (PBA) for working specifically with parents of children engaging in abusive sibling behavior. This process encourages parents to move away from rewarding negative behaviors and begin to reinforce positive behaviors. The steps for PBA are straightforward and include clearly articulating expectations for behavior, stopping negative behavior in a calm manner, reminding siblings of expected behavior, having siblings implement the expected behavior, and reinforce the positive behavior. Following this process will allow a shift in focus from destructive actions to positive actions (Caspi, 2012).

An additional treatment approach was outlined by Caspi (2012) known as the Task-Centered Sibling Aggression Treatment Approach (TCSA). This intervention is based on the foundation of Task-Centered practiced as outlined by Reid (1992), and uses an integration of structural family therapy techniques and behavior modification. This treatment has two components with one being to eliminate the abusive actions and the second to promote healthy, supportive relationships. TCSA has three phases the initial phase (which

includes providing an overview of the process, sibling education, specifying and identifying the problems to be dealt with, selecting the tasks/actions to be taken, identifying potential obstacles, rehearsal, and contracting), the middle phase (which includes a review of the task progression, revisiting the problem and making any needed adjustments to the identified problem, identifying new task/actions to be taken, rehearsal, and contracting), and the ending phase (which includes a review of the target problem, identification of successful progress made, a general review of the presenting situation, and planning for future work to be done) (Caspi, 2012). This type of intervention may work well with families as it is action-oriented and may be conducted with relatively few sessions (Caspi, 2012).

Working with adult survivors and offenders of sibling abuse presents a different set of challenges for treatment. Often, adults have integrated distorted beliefs about themselves and the world around them which may be directly connected to the sibling abuse present during childhood. Further, adults with a past experience of sibling abuse are just as likely to be dismissed as a child or family reporting such experience. As a clinician, it may be necessary to spend additional time asking about the family-of-origin experience and allowing the client to revisit the abuse, with careful attention made to avoid retraumatizing (Caffaro & Conn-Caffaro, 1998; Morrill, 2014). A phenomenological perspective, which emphasizes an egalitarian relationship and promotes the importance of client perception and experience within the therapeutic setting itself, has been found effective when working with adult survivors of sibling abuse (Briere, 1992; Caffaro & Conn-Caffaro, 2005). It is also important to spend time exploring boundary confusion and interpersonal relationship patterns that may have roots in the abusive sibling experience and have been recreated with other relationships throughout the clients development. This pattern repetition happens as the result of a sort of freezing of the interpersonal developmental process. As such, creating a therapeutic atmosphere with adult survivors that balances exploration of the abuse and challenges of abuse perceptions, while at the same time encouraging expression of feelings connected to the events is essential (Caffaro & Conn-Caffaro, 1998; Dunn & Plomin, 1990). As more research begins to emerge connected to the treatment of sibling abuse, greater attention given to best practice when intervening with adult survivors will be critical.

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# Child Physical Abuse and Neglect

Kate Theimer, Mary Fran Flood,
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## Description of the Problem

Adults in a parental role unquestionably play a vital part in their children's lives. The parent–child relationship can affect a child's mental, emotional, and physical health (Shaw, Krause, Chatters, Connell, & Ingersoll-Dayton, 2004). In this important role, parents or parental guardians have the constitutional liberty to decide how they will raise their children (Child Welfare Information Gateway, 2003). However, they are legally held to a certain standard when it comes to the protection, safety, and well-being of the child (Child Welfare Information Gateway, 2011). When this legal responsibility is not sufficiently met, serious legal, social, and family consequences typically result, impacting the parent, the child, and family relationships.

The Federal Child Abuse Prevention and Treatment Act (CAPTA), which was created in 1974 and revised in 2010 (Public Law 111-320), lays a minimum foundation for the legal definition of child maltreatment; however, each state is responsible for establishing its own definition of child physical abuse and neglect. Therefore, precise definitions differ from state to state. According to the US Department of Health and Human Services, Children's Bureau, physical abuse is defined as:

> "nonaccidental physical injury (ranging from minor bruises to severe fractures or death) as a result of punching, beating, kicking, biting, shaking, throwing, stabbing, choking, hitting (with a hand, stick, strap, or other object), burning, or otherwise harming a child, that is inflicted by a parent, caregiver, or other person who has responsibility for the child. Such injury is considered abuse regardless of whether the caregiver intended to hurt the child. Physical discipline, such as spanking or paddling, is not considered abuse as long as it is reasonable and causes no bodily injury to the child" (Child Welfare Information Gateway, 2013b, p. 3).

Neglect is defined as:

> "the failure of a parent, guardian, or other caregiver to provide for a child's basic needs. Neglect may be: Physical (e.g., failure to provide necessary food or shelter, or lack of appropriate supervision); Medical (e.g., failure to provide necessary medical or mental health treatment); Educational (e.g., failure to educate a child or attend to special education needs); or Emotional (e.g., inattention to a child's emotional needs, failure to provide psychological care, or permitting the child to use alcohol or other drugs)" (Child Welfare Information Gateway, 2013b, p. 3).

More simply, physical abuse is often described as the *commission* of abuse, in which the act is deliberate. While the act is deliberate, the

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consequences of the act (e.g., harm to the child) may or may not be intentional. On the other hand, neglect is described as the *omission* of basic care, such as physical, emotional, educational, and safety needs. Similar to physical abuse, injury or any harm to the child may or may not be intentional.

This chapter addresses child physical abuse and neglect perpetrated by adults who are in a parental role. Brief discussions of historical background and epidemiology are followed by a review of offender characteristics and family patterns. The chapter concludes with a discussion of the assessment and diagnosis, course and prognosis, and treatment for those who perpetrate child physical abuse and neglect.

## Historical Background

The mistreatment of children, including physical abuse and neglect, is not a recently occurring phenomenon—it has long been a part of world history and culture. Centuries ago, infanticide, mutilation, and abandonment were common practices in some cultures (Thomas, 1972). In colonial America, parents, teachers, and ministers believed that it was their biblical responsibility to sternly correct children's misbehavior (Thomas, 1972). This strict discipline was often harsh and severe. It was not until relatively recent that society developed a concern for children's safety in their own homes. In fact, Henry Bergh founded the American Society for the Prevention of Cruelty to Animals (ASPCA) before he began the world's first organization devoted entirely to child protection in 1875. He founded the New York Society for the Prevention of Cruelty to Children (NYSPCC) after becoming involved with Mary Ellen Wilson's child abuse case—a case that received significant notoriety (Myers, 2010).

While the protection from severe child abuse and neglect progressed with several other private organizations leading efforts against cruel parenting practices, the exploitation of children continued to be a problem. For example, in the USA, it was not until the early twentieth century that people began to campaign against the use of child labor. Minimum age and number of work hours for children in the USA were first regulated by federal law in 1938 (The Child Labor Public Education Project, 2000).

Throughout the 1960s, there were several propositions to enact child abuse reporting laws for those in certain professions (e.g., physicians, social workers, and teachers) (Kempe, Silverman, Steele, Droegemuller, & Silver, 1962) and "with speed uncharacteristic of state legislatures" every US state adopted some form of a child abuse reporting law between 1963 and 1967 (Thomas, 1972, p. 332). Although physical abuse and neglect were now governed by federal and state laws, culturally acceptable practices of hitting children with rulers, paddling, and physically disciplining children at school and home continued into the late 1970s (Zolotor, Theodore, Runyan, Chang, & Laskey, 2011). Today, parents are still legally able to physically discipline their children (e.g., spanking) as they see fit; however, physical discipline crosses the line from punishment to abuse when it leaves a mark on or injures the child (Child Welfare Information Gateway, 2013b).

## Epidemiology

The National Child Abuse and Neglect Data System (NCANDS), under the federal government, collects, analyzes, and reports yearly data on child abuse and neglect in the USA (US Department of Health and Human Services, 2015). Case-level data are collected from 52 states (including District of Columbia and Puerto Rico) in order to obtain a comprehensive picture of the prevalence of child abuse and neglect. In 2013, the most recent available annual report, Child Protective Services (CPS) received approximately 3.5 million referrals of child abuse and neglect involving about 6.4 million children. Referrals not meeting agency criteria are screened out or redirected from CPS to other agencies in the community. After screening procedures, approximately 678,932 children were identified as victims of child abuse and neglect. This amounts to 9.1 victims per 1000 children in the population.

Neglect is significantly more common than physical abuse. Of the identified child maltreatment victims, about 122,159 (18.0%) were physically abused and 539,576 (79.5%) were neglected. Males and females were equally likely to perpetrate physical abuse, whereas perpetrators of neglect were more likely to be female (62.7%). Child physical abuse and neglect can have serious consequences for children, including severe injury and death. Among the children who died from maltreatment, about 71.4% were neglected and 46.8% were physically abused.

Demographic information on children based on maltreatment type is not available through NCANDS; instead general demographic statistics for all combined abuse types is reported. During the most recent year for which data are available, young children were most vulnerable for experiencing child abuse and neglect with about 27.3% of victims under 3 years old and another 19.7% between the ages of three and five. Approximately the same percentage of boys (48.7%) and girls (50.9%) were victims of maltreatment. This means that 8.7 per 1000 boys and 9.5 per 1000 girls of the general population experienced maltreatment. Most victims comprised three ethnicities with 44.0% of victims identifying as White, 22.4% of victims identifying as Hispanic, and 21.2% identifying as African-American. However, African-American children had the highest prevalence of victimization with 14.6 per 1000 African-Americans experiencing abuse or neglect. White and Hispanic children had lower rates of victimization with 8.1 per 1000 White children and 8.5 per 1000 Hispanic children experiencing maltreatment.

The prevalence of child physical abuse has been relatively stable in the last 5 years while the prevalence of neglect has slightly increased since 2009. There has been a long-term trend of decline of physical abuse in the USA, with NCANDS rates decreasing about 55% from 1992 to 2013 (Finkelhor, Jones, & Shattuck, 2015). The rates of neglect have not experienced as strong a long-term trend, with NCANDS rates only declining 13% from 1992 to 2013 (Finkelhor et al., 2015). There is currently no definitive answer as to why child physical abuse rates have decreased in the

past several decades, but researchers postulate that an increase in law enforcement officers and child protection workers, overall sustained growth in the US economy, rising public awareness, and more vigorous policies on prosecution and incarceration have all contributed to the decrease (Finkelhor, 2008; Finkelhor & Jones, 2006). According to Jones, Finkelhor, and Halter (2006), there is also no clear explanation as to why trends of neglect have differed so distinctly from trends of physical abuse. It is possible that neglect has not had the same level of public or policy attention as physical abuse (Finkelhor et al., 2015). It may also be due to a continued strong correlation between neglect and poverty, particularly in minority communities (Lanier, Maguire-Jack, Walsh, Drake, & Hubel, 2014).

While NCANDS has been the most reliable resource for annual prevalence rates of substantiated cases of child maltreatment, there are some limitations. It is likely an underestimation of the true prevalence because some cases go unreported to CPS. Additionally, NCANDS prevalence rates are based on substantiated cases of abuse and neglect—meaning that true cases of maltreatment may not be included if there was insufficient evidence to support the referral. NCANDS reports data on annual prevalence of maltreatment which misrepresents the cumulative number of children who experience abuse and neglect during childhood. Using NCANDS data from the years 2004–2011, Wildeman et al. (2014) found that one in eight US children will have a confirmed case of child maltreatment in their lifetime.

Other methods are available that attempt to capture the true prevalence of physical abuse and neglect, such as retrospective reports. Unlike NCANDS reports, retrospective reports include unreported or unsubstantiated cases of maltreatment. The Adverse Childhood Experiences Study (ACE Study), a widely cited and influential retrospective survey of more than 17,000 adults conducted by Kaiser Permanente and the Centers for Disease Control and Prevention (CDC), found that 28.3% of participants experienced physical abuse, 14.8% experienced emotional neglect, and 9.9% experienced physical neglect in childhood

(CDC, 2014). Retrospective reports add value to child abuse literature but further research is needed to examine the possible biases that impact this form of reporting. For example, retrospective reports heavily rely on a person's judgment and interpretation of past events and may produce false negatives (Hardt & Rutter, 2004).

## Characteristics of the Offender

Child maltreatment offenders are most often the child's parents (US DHHS, 2015). Many interdependent factors, including characteristics of the parent, the parent–child relationship, and the family context, contribute to parenting practices that are associated with both abuse and neglect (Belsky, 1993). However, physical abuse involves the commission of violence while neglect occurs because of the omission of certain standard parental behaviors. There is more research on physically abusive parents compared to neglectful parents, and findings generally show that those who physically abuse their children are a more heterogeneous group while neglectful parents tend to be a more homogenous group. For this reason, the section on physical abuse reports broader findings and the section on neglect shows findings that are more detailed and definitive.

## Physical Abuse

Physical abuse tends to occur as a maladaptive way to discipline or manage the behavior of a child (Rodriguez & Richardson, 2007). Although traits of the parent, the parent–child relationship, and the family context interact to produce all kinds of maltreatment, caregiver characteristics such as poor mental or physical health, poor problem solving skills or low abstract reasoning skills, increased sensitivity to anger, and substance abuse (Dubowitz et al., 2011; Stith et al., 2009) have been associated specifically with physical abuse. These characteristics can lead to poor parenting practices such as inappropriate child management skills, inaccurate child rearing knowledge, and a belief that a child may be pur-

posefully noncompliant (Milner, 2003). Regarding the parent–child relationship, parents with negative or less frequent parent–child interactions tend to perpetrate physical abuse more frequently than other parents (Stith et al., 2009). Contextual factors, such as overall family stress, parental discord, and domestic violence are also related to higher rates of physical abuse (Capaldi, Kim, & Pears, 2009; Guterman, Lee, Taylor, & Rathouz, 2009). These factors are stressors that place increased demands on caregivers and reduce their ability to appropriately discipline and manage child behaviors (Belsky, 1993). For example, physically abusive caregivers tend to respond to stress by becoming easily aroused and expressively reactive (Rodriguez & Richardson, 2007). According to the most recent data, males and females were equally likely to perpetrate physical abuse (US DHHS, 2015); however, fathers and boyfriends of mothers were most likely the perpetrators in physical abuse-related deaths (Child Welfare Information Gateway, 2014).

## Neglect

The occurrence of neglect is influenced by interrelated parental characteristics, parent–child relationship factors, and the family context (Belsky, 1993). When parents experience significant challenges in their own childhood, such as being maltreated, running away, or being in the foster care system (Éthier, Couture, & Lacharité, 2004), risk for later neglect of their own children is increased. Children whose parents have poor problem-solving skills, poor parenting skills, or an insufficient understanding of childhood development are more at risk for neglect (Sullivan, 2000). Additionally, compared to all other forms of maltreatment, neglect is most strongly associated with parental substance abuse. One study reported parents who abuse alcohol or drugs were four times more likely to neglect their children (Jaudes, Ekwo, & Van Voorhis, 1995). While studies show varying degrees of association between a parent's mental health and neglect (Connell-Carrick, 2003), mental health conditions

may impact a parent's ability to care for a child or to respond to the child's behavior appropriately (DePanfilis, 2006). In neglectful families, the parent–child relationship may be strained. Parents who neglect their children are less engaged, open, supportive, interactive, and empathetic toward their children, and have more negative interactions (Connell-Carrick, 2003). According to the most recent data, 62.7% of neglect cases were perpetrated by females (US DHHS, 2015) and mothers were most likely the perpetrators in neglect-related deaths (Child Welfare Information Gateway, 2014).

There are multiple aspects of the family context associated with higher rates of neglect, many of which co-occur. First, neglect is more directly related to poverty compared to all other forms of maltreatment (e.g., Charlow, 2001; Lee & Goerge, 1999). Interestingly, among a low socioeconomic sample, one study found that parental perception of economic hardship was more strongly associated with neglect compared to actual income disparities (Slack, Holl, McDaniel, Yoo, & Bolger, 2004). Another risk for neglect is the occurrence of domestic violence in the home (Hartley, 2002). Single parents are also at a higher risk for neglecting their children (Connell-Carrick, 2003). Similar to physical abuse, children from families with high stress are more likely to experience neglect (Stith et al., 2009). However, parental *response* to stressful life events plays a role in the occurrence of maltreatment. Parents who respond to stress by disengaging are more likely to neglect their children (Rodriguez & Richardson, 2007). Overall high stress as well as factors such as poverty, domestic violence, and single parenthood increase the demands placed on caregivers and reduce their ability to provide a supportive and responsive environment for their children (Belsky, 1993).

The community in which the family lives may also be associated with the perpetration of neglect. For example, living in an unsafe neighborhood is related to a child's basic needs not being met (Ernst, Meyer, & DePanfilis, 2004). Additionally, those living in dangerous communities tend to report less social support and more social isolation, which are also related to neglect (Coulton, Crampton, Irwin, Spilsbury, & Korbin, 2007). These families tend not to have healthy support systems (e.g., family, friends, and neighbors) who can provide emotional support for the parent as well as provide child care when needed (Coulton et al., 2007).

## Family Patterns

There is a common belief that those who have experienced abuse or neglect in childhood are more likely to exhibit abusive, neglectful, or aggressive behaviors toward their own children or others (Kaufman & Zigler, 1989). This belief is often referred to as the cycle of violence or the intergenerational transmission of abuse. While sometimes used interchangeably, cycle of violence and intergenerational transmission of abuse are also sometimes used independently to specify the target of the violence or abuse. Thus, we define cycle of violence as the broad employment of violence or criminal behavior in adulthood after the person is physically abused or neglected in childhood. Intergenerational transmission of abuse more specifically looks at childhood abuse begetting later abuse of one's own children.

## Cycle of Violence

The cycle of violence theory proposes that the experience of maltreatment in childhood predisposes the victim to violence in adolescent and adult years (Widom & Maxfield, 2001). Three major studies from multiple regions and time periods have all found that childhood abuse and neglect increases a person's risk for criminal and delinquent behavior (Maxfield & Widom, 1996; Smith & Thornberry, 1995; Zingraff, Leiter, Myers, & Johnsen, 1993). Most recently, a study found that "being abused or neglected as a child increased the likelihood of arrest as a juvenile by 59 percent, as an adult by 28 percent, and for a violent crime by 30 percent" (Widom & Maxfield, 2001, p. 1). These studies pinpoint some of the short- and long-term negative outcomes that exist for children who have been physically abused or

neglected. Along with the increased risk for these maladaptive behaviors, the experience of child maltreatment is also associated with negative physical, emotional, cognitive, and psychological outcomes (Trickett & McBride-Chang, 1995).

The exact process of the cycle of violence is unknown, but many theories attempt to explain why those who were neglected or physically abused are more at risk for being delinquent adolescents or criminal adults. For example, control theory (Hirschi, 1969) finds that harsh or inappropriate discipline and neglectful parenting may disrupt the bond between the parent and child. When this bond is disrupted, the transference of positive family and community values is negatively affected. The child may not develop an internal sense of control or pro-social attitudes about school, work, or authority figures. Lacking these qualities then correlates with antisocial behavior. Another view is the social-interactional perspective (Patterson, 1982; Snyder, 1977), which generally finds that disruptive parenting (e.g., harsh discipline or poor parental monitoring) is linked to antisocial behavior through the process of ignoring pro-social behaviors and reinforcing coercive behaviors. This perspective finds that parents may effectively *train* their children to become antisocial or deviant through the process of poor parenting practices and inappropriate reinforcement. A complex interplay of being rejected by normal-functioning peers, academic failure, and joining deviant peer groups can exacerbate delinquent and criminal activity (Patterson, Debaryshe, & Ramsey, 1990). On the other hand, protective factors, such as starting delinquent behavior at an older age and participating in prevention or intervention programs, may protect children from experiencing more enhanced antisocial behaviors (Patterson et al., 1990).

## Intergenerational Transmission of Violence

Within this cycle of violence, researchers also look specifically at how those who have been physically abused or neglected may tend to com-

mit abuse against their own children later in life. Many studies show the relationship between a parent's perpetration of abuse or neglect and their past history of maltreatment (e.g., Dixon, Browne, & Hamilton-Giachritsis, 2005; Egeland, Bosquet, & Chung, 2002). However, studies vary in the rates of intergenerational violence—estimates from numerous studies spanning several continents range from 8% of parents maltreated during their childhood abusing or neglecting their own children all the way up to 40% (Egeland, Jacobvitz, & Papatola, 1987; Hunter & Kilstrom, 1979; Kaufman & Zigler, 1987; Widom, 1989). Estimates likely vary due to differences in methodology, but a consistent finding across studies is that the majority of parents who have experienced child maltreatment do *not* later abuse their own children (Berlin, Appleyard, & Dodge, 2011). Thus, experiencing childhood maltreatment increases risk for subsequent perpetration of maltreatment, but this relationship is not causal.

Similar to the cycle of violence, the exact process of intergenerational transmission of abuse is unknown and is likely due to a complex interplay of risk and protective factors. Berlin et al. (2011) found that the experience of childhood physical abuse can influence one's thoughts and behaviors and those thoughts and behaviors may then influence the perpetration of maltreatment in adulthood. For example, mothers' childhood physical abuse was associated with aggressive response biases and these biases predicted offspring abuse. The authors also found that mothers' childhood physical abuse was associated with greater social isolation and greater social isolation predicted offspring abuse. Another study by Dixon, Browne, and Hamilton-Giachritsis (2009) more directly points at five important risk factors that associate with intergenerational abuse: parenting under 21 years of age, having a history of mental illness or depression, having substance abuse problems, having poor parenting skills, and living with a violent adult. However, two important protective factors—social support and financial security—may protect parents regardless of their history of abuse and current risk factors. Other studies find additional protective factors, including a secure home environment, emotional stability, long-term

stable intimate relationship, and less stress (Egeland, 1988, 1991). Finally, some theories generally propose that an abusive or neglectful childhood environment provides inadequate training and poor modeling for parenthood in the future. Maltreated children become conditioned to distorted patterns of arousal, learn inappropriate behaviors, and develop cognitive distortions around their parenting values and behaviors (Kaufman & Zigler, 1989).

## Assessment and Diagnosis

Assessment and diagnosis are tools used by mental health professionals, government agencies, and child services to collect information about and better understand the risk, prevention, and intervention of child physical abuse and neglect in a particular home. This is seen as a complex task, as outlined by the many challenges described below; however, assessment and diagnosis are key to protecting children and improving parent skills. Given the broad scope of assessment procedures involved in child physical abuse and neglect cases, this chapter provides a brief overview of the major domains to be assessed. For an example of specific measures, see Crooks & Wolfe (2007).

### Assessment

There are several different purposes of assessment depending on the situation or referral question (Crooks & Wolfe, 2007; Johnson et al., 2008). The goal may be to assess if the child is being harmed or it may be to confirm the occurrence of abuse. Assessment may also be used to assess the perpetrator's current or future risk for abuse and overall parenting ability. Questions about harm and perpetrator risk are most common when the goal is to assist the Court or child protective agencies to decide if the child should be removed from the home or returned to the home after foster care. Other common goals are to assess the family, child victim, or the adult perpetrator in order to recognize needs, evaluate problems, understand the perpetrator's prospects for rehabilitation, and plan an appropriate individual or family intervention.

Again, the assessment procedures will vary substantially based on the purpose of assessment, the family, and their needs; it is highly individualized. In order to get a look at "the whole picture" and allow for a more accurate conceptualization of the problem, professionals must gather a great deal of information. Assessment should include variables related to the parent, the child, the parent–child relationship, the family context, and the abuse incidence(s) (Belsky, 1993).

Parent or caregiver variables collected during assessment may include (but are not limited to) the parent's family background, history of abuse, stress level, quality of social support, emotional regulation skills, parenting competency and child-rearing methods, knowledge of child development, anger or impulse control issues, problem solving skills, mental and physical health concerns, and substance use (DePanfilis, 2006; Johnson et al., 2008). These factors help professionals understand the parent's risk for perpetrating abuse or neglect in the future as well as pinpoint areas of intervention (DePanfilis & Salus, 2003).

Numerous child variables must also be assessed including child behavior, cognitive, social, emotional, physical, and moral development, neurobiological concerns, psychological functioning, and school performance (Crooks & Wolfe, 2007). While the various tools for assessment (e.g., self-report, interviews, and behavioral observations) are discussed below, it is important to note that a multimethod approach should be used for children so that information gathered regarding the child can be most accurate.

The parent–child relationship must also be assessed. How the parent and child interact with one another and how the parent manages the child's behavior are key components in the assessment of risk as well as major factors for intervention (Johnson et al., 2008). The family context in which the abuse or neglect occurs is also significant. This includes variables like the home environment, the family's social support, community resources, financial and employment

stability, marital discord, and family adjustment (Crooks & Wolfe, 2007). Similarly, evaluating the abuse variables, such as the specific incidence(s) of abuse, is important.

Because assessment is so highly individualized and will vary from family to family, the use of a multi-method, multi-informant approach is critical. Certain assessment methods are best used during the initial assessment process (e.g., evaluating the problem) while others are more useful for ongoing assessment (e.g., monitoring behavior change). Crooks and Wolfe (2007) provided a valuable summary of available assessment measures. For example, they recommend the use of clinical interviews, direct observation, administered tests and self-report questionnaires, and collateral information. Clinical interviews can be used to assess parent variables such as family background, areas of stress, and emotional regulation skills. For children, interviews can be used to assess child variables as long as interview strategies are developmentally appropriate. Direct observation, either at the family's home or at a clinic, can be useful. However, the clinician is only able to gather information during a certain frame of time, so he or she may miss some behaviors and interactions. The inability to observe or obtain accurate reports of problematic parenting behaviors and parent–child interactions makes multiple forms of assessment critical. Administered tests and self-report questionnaires are also quite common and may corroborate information learned using other assessment formats. For example, providers can use standardized instruments to evaluate child and parental psychopathology, child and parent cognitive ability and achievement, parental knowledge and functioning, marital conflict and satisfaction, and social support. In addition to self-report measures, parent and teacher reports of child behavior and emotional functioning provide norm-referenced comparison of children's functioning with that of their peers. All forms of assessment should be augmented with collateral information when possible. Information from the child's physician, police reports, child protective services, and schools can provide a more complete picture (Crooks & Wolfe, 2007).

Assessment for families experiencing physical abuse and neglect comes with several unique challenges (Crooks & Wolfe, 2007). For example, services from professionals may be involuntary or court ordered, parents may be reluctant or distrustful of outside services or government agencies, and parents may be resistant to change. It is also difficult to observe episodes of abuse or neglect first hand during assessment procedures and recounts of abuse incidents may be unreliable. Additionally, although there may be some similarities among families who experience abuse, this group is highly heterogeneous and assessment must be individualized. Moreover, families often have multiple, intertwined problems which can complicate matters. Physical abuse and neglect occur within a system (e.g., it requires at least two individuals) rather than within just one individual (e.g., more similar to depression or anxiety), so assessment should include all individuals involved.

## Diagnosis

The perpetration or experience of child physical abuse and neglect is not a mental disorder; however, it is included in the Diagnostic and Statistical Manual—5th Edition (DSM-5) in the chapter entitled "Other Conditions that may be a Focus of Clinical Attention" (American Psychiatric Association, 2013). This DSM-5 chapter outlines problems that may influence the diagnosis, course, or treatment of a client's mental disorder (APA, 2013). Generally, the DSM-5 classifies mental disorders within the person, but does allow for the recognition of external influences on mental health. Thus, conditions or experiences that occur between two or more people, as physical abuse and neglect does, are more difficult to classify or manage within the DSM-5 diagnostic system. To signify the perpetration or experience of maltreatment, V Codes are given and may indicate several things: Type of maltreatment (abuse or neglect); initial (A) or subsequent encounter (D), whether the abuse or neglect was suspected or confirmed; who is receiving the treatment (victim or perpetrator); if

treatment is for perpetrator, whether the perpetrator abused or neglected her/his own child or another child; if treatment is for victim, whether the abuser was a parent or nonparent; and personal (past) history of maltreatment in childhood (APA, 2013). Similar guidelines for coding child physical abuse and neglect in the context of related mental health are outlined in The ICD-10 for Mental and Behavioural Disorders Clinical Descriptions and Diagnostic Guidelines (ICD-10; World Health Organization, 1992).

One limitation with the current classification of physical abuse and neglect in the DSM-5 and ICD-10 is the lack of attention placed on how these forms of maltreatment may influence the development and experience of psychopathology. For example, for individuals with depressive, anxiety, and substance use disorders, one study found that those with a history of abuse may have worse overall impairment compared to those without a history of abuse (Teicher & Samson, 2013). Additionally, it has been found that those with an abuse history have a poorer response to treatment compared to those without an abuse history (Teicher & Samson, 2013). Just as the experience of child physical abuse or neglect may impact the development, experience, and treatment of a mental disorder, a mental disorder can impact the behavior of an offender (Bornstein, 2005; Widom, 2014). Overall, assessment and diagnosis of the experience and perpetration of child physical abuse and neglect is a complex task with several challenges.

## Course and Prognosis

The course and prognosis for those who perpetrate child physical abuse and neglect can vary tremendously based on the type of maltreatment and treatment procedures received (if any), among other factors. When treated in behavioral- and cognitive-based programs, parents can improve in multiple areas (e.g., parenting knowledge and skills) that may lead to fewer reported incidences of abuse or neglect (Wolfe & Wekerle, 1993). Treatment goals and approaches are discussed in the final section of this chapter.

There are several limitations that may hinder intervention efforts, and thus affect the course and prognosis for parents who maltreat their children. Parent substance abuse or severe psychopathology may compromise the effectiveness of treatment (Azar & Wolfe, 2006). Additionally, treatment often requires great effort from the parent(s) involved. For example, many forms of intervention necessitate a large degree of adherence—parents must apply, practice, and execute new skills at home. Unfortunately, for those who perpetrate physical abuse and neglect, the adherence and acquisition of new skills tends to be low (Lundquist & Hansen, 1998). Similarly, parents' willingness to adopt new attitudes related to child discipline and parent–child interaction can be a major challenge in intervention. Parents often do not believe change is necessary which can deter treatment efforts (Lundquist & Hansen, 1998). Also, session attendance, which is directly tied to treatment adherence and a parent's willingness to change, can be a major limitation to the efficacy of treatment. One study found that parents and families attended approximately 72% of sessions located in the family's home and 62% of sessions in a clinical setting (Malinosky-Rummell et al., 1991). Often, parents are not self-referred and may be mandated by court to attend treatment. While treatment attendance tends to be higher for those who are court-ordered compared to those who are not court-ordered, there is little evidence to suggest that those mandated to treatment will accept an attitude of change or adhere to treatment practices (Hansen & Warner, 1994). Attendance tends to be low overall; one study found that of those who were court-ordered to attend assessment appointments, 37% of mothers did not attend at least two thirds of their scheduled appointments (Butler, Radia, & Magnatta, 1994).

Recidivism is also a key factor in the understanding of course and prognosis for those who perpetrate child physical abuse and neglect. Definitions of recidivism (or "recurrence") may vary but generally, recidivism can be defined as "a substantiated report following a prior substantiation that involves the same child victim or family" (Fluke & Hollinshead, 2003, p. 2). From study to study, there is tremendous variability in

the rates of recidivism reported. Some studies involving low risk samples show that only 1–2% of perpetrators recidivate abuse, and other studies show much larger rates of abuse, such as 66% found in one longitudinal study (DePanfilis & Zuravin, 1998; Fluke & Hollinshead, 2003). Rates likely vary due to differing methodological factors such as dissimilar definitions of recidivism, studying different types of abuse cases (e.g., recurrence of same form of abuse vs. other forms of abuse), and studying families over different lengths of time (Fluke & Hollinshead, 2003). Despite varying findings in the literature on rates of recidivism in general, it has been clearly documented that parents who neglect their children are more likely to recidivate compared to those who physically abuse their children (Fluke, Shusterman, Hollinshead, & Yuan, 2005). In an article about "the neglect of neglect," Bloom (2000) notes that many substantiated cases of neglect that come through child protective agencies do not receive any subsequent services because cases of physical or sexual abuse are prioritized for services. Bloom further hypothesized that these forms of abuse are prioritized because their harm to a child is often more observable than the less tangible or detectable harm of neglect.

Research efforts on the rates of recurrence of child maltreatment generally do not explicate findings by abuse category. Instead, studies often cluster several kinds of child abuse together. Because of this, findings are not clear as to whether the following factors are specific to child physical abuse, neglect, or any other form of abuse. Generally, recidivism rates tend to be higher when the caregiver abuses alcohol and when the caregiver is a female. Family factors, such as large family size and living in a rural area, are associated with the recurrence of maltreatment. Rates of recurrence are higher when the abuse involves a younger child and when the child has a disability. However, there is no difference between rates of recidivism for male and female children and there are mixed findings as to whether child ethnic group status associates with higher rates. Recidivism is more likely when the initial abuse was severe and when neglect was

also present. Finally, a recurrent incidence of abuse is most likely to happen within a few months of the first report (Fluke & Hollinshead, 2003; Fluke et al., 2005).

## Treatment

The goal of treatment for child physical abuse and neglect is to cease any ongoing abuse, prevent future maltreatment from occurring, and assist the child/family to cope with sequelae of abuse. During the assessment process, therapists assess each individual family based on several variables (described in the assessment section), which may include child, parent, parent–child interaction, family/environmental, and abuse specific variables. Based on these variables, therapists determine each family's particular risk level and their needs for treatment.

In some cases, treatment assessment results will lead law enforcement or the Court to determine that a child should be removed from the home either temporarily or permanently. This decision is commonly based on the risk of further harm to the child (e.g., dangerous living conditions, severe maltreatment) and is made by child protective agencies and law enforcement (DePanfilis, 2006). Removing a child from the home may or may not be best for the child or family, thus accurate information (including assessment, recommendations, and consultations by mental health professionals) provided to child protective agencies, law enforcement, and the Court is key to less disruption and harm to the child (Child Welfare Information Gateway, 2013a).

Needs for treatment can be categorized into parent intervention needs (based on parent variables and parent–child relationship variables), child intervention needs (based on child variables), and family/situational prevention needs (based on family/environmental and abuse specific variables). Parent intervention needs may include parent psychopathology, substance abuse, coping skills, impulse or anger control, problem solving, child interaction and stimulation, identification of safety risks, child hygiene

needs, developmentally appropriate parenting skills, discipline techniques, and correcting parental expectations of children (DePanfilis, 2006; Tymchuk, Lang, Sewards, Lieberman, & Koo, 2003). Child intervention needs may include social or relationship skill deficits, noncompliance, delays in development, academic delays, self-control difficulties, ongoing risk assessment, and any other concerns with physical, emotional, or mental health (Azar & Cote, 2005; DePanfilis, 2006; George & Main, 1979; Kolko, 1992). Family or environmental needs may include family relationship discord, economic stressors and budgeting, vocational assistance, and social isolation (DePanfilis, 2006; Lutzker & Rice, 1984).

Depending on the needs of the particular case, treatment may focus on one, several, or all needs and may be offered by several providers. Thus, inclusion of only one parent, the couple, the child, additional family members, or a combination of these individuals will differ for each family and intervention. Certain needs may be prioritized and addressed before other needs. Once a decision has been made regarding the needs addressed by the intervention, other treatment decisions must be made including the setting of the treatment (clinic, home, controlled learning environment set up in clinic), if the case is appropriate for a group treatment program, and how treatment will be coordinated. Finally, additional family support services, such as daycare services, respite, and access to a crisis hotline, may be set in place (Azar & Wolfe, 2006).

Parent focused cognitive and behavioral methods for treatment tend to be a common form of intervention for child physical abuse and neglect because they focus on altering parent behaviors and/or thoughts that are maladaptive (Christoffersen, Corcoran, DePanfilis, & Daining, 2008). These evidence-based approaches have strong research support that shows them to be effective at changing parent behavior (Kolko, 1996). Treatment may focus on just one method or use multiple methods in a treatment package. Modeling and behavioral reversal is one of the most widely utilized components of behavioral treatment (Wolfe, Kaufman, Aragona, & Sandler, 1981). The therapist models appropriate parent-

ing behaviors (or shows videos) as well as role-plays different parenting situations with the client. Feedback during role plays is essential for increasing adaptive behavior. Feedback should be presented positively and aim to praise appropriate behaviors rather than scrutinize negative behaviors. Cognitive restructuring concentrates on dysfunctional or illogical beliefs that may cause inappropriate parenting behaviors or responses (Azar, Nix, & Makin-Byrd, 2005). For example, it is common for parents to misattribute their children's developmentally normal behavior as intentionally noncompliant (Haskett, Scott, Grant, Ward, & Robinson, 2003). Thus, the goal is for the client to recognize how their problematic beliefs affect their behaviors as well as alter those problematic cognitions to ultimately change their maladaptive behavior (Azar et al., 2005). Finally, skills training (e.g., parent training, anger control strategies, and stress reduction strategies) is another common component of treatment. Parent training aims to allow parents to track problematic child behaviors, educate parents on appropriate techniques for discipline, and practice application of those disciplinary strategies (Azar & Wolfe, 2006). Anger control strategies help parents recognize signs of anger arousal, replace angry cognitions with appropriate ones, and develop self-control to regulate their anger expression (Miller-Perrin & Perrin, 2013). Stress reduction strategies teach parents relaxation techniques to help decrease stress (Runyon & Urquiza, 2010). In addition to the above common components of parent-focused treatment, several skills may also be introduced to parents who neglect their children. These skills may include home safety, budgeting, identifying illness, responding to emergencies, meal planning, and home cleanliness (Lutzker, Bigelow, Doctor, Gershater, & Greene, 1998).

As described above, there are many limitations that may hinder the intervention efforts or treatment program set in place. Addressing and reducing those limitations as much as possible is important for effective intervention. One common problem is parent motivation—some parents may not see their behaviors as problematic and may not be motivated to change their

behaviors. One way to reduce this form of resistance is to "reframe the problem in terms of day-to-day difficulties that a parent can identify" (Azar & Wolfe, 2006, p. 611). Rather than using language such as "child physical abuse" or "neglect" with the parent, the therapist helps him or her identify daily problems (e.g., financial problems and child disobedience) that they understand as their reality and may be more motivated to change. Also, addressing and decreasing a parent's possible concern of being labeled a "bad parent" can help establish rapport and increase parent motivation to complete treatment (Azar & Wolfe, 2006). Another potential limitation to treatment is that other life circumstances may get in the way of attending therapy or applying what they learned in their home. To reduce this, therapists or treatment providers can address these life circumstances in treatment or refer clients to community organizations (e.g., agency for domestic violence or poverty). This will allow parents to deal with their problems and reduce stress. Finally, poor attendance can be a major limitation to treatment outcomes. If applicable, phone reminders, including text messages, can be a useful tool to improve attendance; however, not all families may be able to afford a phone. Thus, tangible incentives (e.g., money, small prizes, and movie tickets), transportation to and from treatment, free babysitting during treatment, and creating a treatment contract may be possible strategies to improve attendance (Ambrose, Hazzard, & Haworth, 1980; Azar & Twentyman, 1986; Gambrill, 1983).

## Summary

Child maltreatment has been a problem throughout world history. Despite major steps in child protection laws, child physical abuse and neglect continue to be prevalent in the USA. While the offenders are typically the child's biological parents, some differences are seen between those who perpetrate physical abuse versus neglect. Several interconnected and complex factors at the parent level, the parent–child interactional level, and the broader family context level are associated with the perpetration of maltreatment, including a caregiver's own history of childhood abuse. Therefore, assessment procedures and individualized, multimethod treatment designed to ameliorate these areas of risk are key to protecting children against the recurrence of physical abuse or neglect.

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# The Medical Aspects of Victim Vulnerabilities in Child Sexual Exploitation

Sharon W. Cooper

## Introduction

The sexual abuse of children and sexual exploitation have been crimes for centuries. However, the dawn of the publicly available digital age has brought with it a dark cloud of extraordinary impact on infants, toddlers, children, and youth. Child sexual abusive images, a preferred description to the legal term "child pornography," now is being recognized as having a much greater impact than previously presumed. The "abusive image" terminology is more accurate for two reasons. The first is that "pornography" infers voluntary modeling, and for the general public the term can minimize the extraordinary long-term impact of existing memorialization of abuse. Abusive images of children are digital crime scenes, and they represent many motives on the part of the producer. The second reason "child pornography" is an inaccurate term is because it infers consent, and minors are unable to provide consent to sexual victimization. The term "abusive" is the most appropriate description of these images because they continue to cause harm to the victim long after the actual production takes place (Cooper, Johnson, & Wright, 2015). This

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constitutes a recognized aspect of ongoing victim impact—that the inherent pain caused by the existence of the images is compounded when the images are downloaded, traded and/or possessed by others.

Child sexual exploitation (CSE) cases differ from child sexual abuse (CSA) in several ways. These differences are evident from the discovery of abuse, throughout the investigation and prosecution, while the victim recovers, and during restitution. In CSA, discovery typically results from victim outcry, behavioral changes in a child which prompt interrogation, or eyewitness reports. If the discovery occurs following a child's spontaneous disclosure, an occurrence more often seen in CSA cases, the motive is victim-directed. In contrast, discovery of CSE often results from digital evidence. In CSE cases the investigation very often begins with a confrontation of the suspected victim that may involve exposing him or her to the pictorial evidence. The victim is almost never ready for this presentation, and defense mechanisms understandably arise. As a result, the victim may deny the abuse occurred, and may even claim the child in the image is another person. Such defense mechanisms are the rule rather than the exception.

The investigation of CSE is highly technical and may involve multiple jurisdictions, including international entities. It can take years to investigate a case, and during this period other offenders continue to distribute the contraband. To complicate

matters, many CSE investigations involve multiple offenders; examples include some cyber-enticement cases, sex trafficking situations where victims are sold to other traffickers, child sex rings with live streaming video, and cases where sex offenders travel to other countries to abuse children. Investigators must not only be skilled but also tenacious, and they must receive ongoing training to keep up with changing technologies.

The prosecution of CSE cases has a higher conviction rate than CSA cases since the digital evidence in CSE cases often speaks for itself. However, the learning curve for the prosecution is steeper, and the education of judges and juries requires careful planning. Search warrants must be adroitly crafted and laws continually updated to address changes in technology and victimization. Many prosecutors' offices have had to establish specific units with trained investigator/prosecutor teams so defense strategies can be addressed skillfully.

Like victims of CSA, recovery for those who have been exploited online is difficult. Medical and mental health care providers are often inadequately trained in this area of child abuse. Cyber-victimization has not yet entered mainstream psychology collegiate education curricula despite the extremely high prevalence of technology use. Further, although the commercial sexual exploitation of children and youth is becoming recognized, and numerous organizations (such as the American Professional Society on the Abuse of Children [APSAC] 2016) are establishing clinical practice guidelines for assessment and treatment, other aspects of cyber-victimization remain inadequately researched (APSAC, 2016). One European study revealed that nearly 40% of adolescents who were seen in emergency departments for suicidal ideations had online behavior as part of the precipitating factor.

The additional complication of family dynamics fraught with extreme secrecy so as to minimize the risk of others discovering that their child's abusive images are online underscores an area of recovery that has not progressed nearly as rapidly as the technology of discovery. In the USA, a small cadre of attorneys who understand the extraordinary long-term impact of this form of victimization are pursuing restitution for victims of CSE. They attempt to secure financial restitution from those who promote continued psychological—and in some cases, physical—damage by downloading, trading and/or collecting abusive images (Cooper et al., 2015).

## Types of Child Sexual Exploitation

Child sexual exploitation entails several types of abusive acts:

- The production, downloading, trading or possession of sexually abusive images of children and youth (Cooper, 2005);
- The sexual trafficking of minors by family members (often referred to as intrafamilial sex trafficking) which also may include production and trafficking in sexual abusive images (often referred to as trafficking in pornography);
- The online enticement of minors for ultimate sexual abuse that often results in compliant victimization, kidnapping, and even homicide. This form of sexual exploitation may result in the production of sexual abusive images either as an endpoint or for the purpose of blackmailing the victim into continued sexual compliance with the initial offender and/or others;
- The commercial sexual exploitation of children who are either internationally or domestically recruited, harbored, obtained, transported, and/or provided for the purpose of a commercial sex act that does not require force, fraud, or coercion. It is not uncommon that sexual abusive image production is part of this victimization, whether for advertising, as an added benefit to the buyer, or as a form of power, control, or blackmail by the trafficker (Estes & Weiner, 2005);
- The exploitation of children via "sex tourism" which occurs when offenders travel for the purpose of accessing minors for sexual assault, possible abusive image production, multiple offender assault, kidnapping, and/or homicide. Note that some sexual abuse of minors who were sold by traffickers is live streamed via webcams; these children are forced to perform

requested sexual acts for offenders who often reside in other countries. This form of Internet-facilitated abuse is being discussed as another form of sex tourist behavior—one where the offender has not physically traveled to a location but that results in similar consequences for the victim (Cooper et al., 2015; Muir, 2005);

- Online or communication technology blackmail for self-produced sexually explicit images (often referred to as "sextortion"). This may be the end result for an offender who poses as a peer seeking a romantic relationship, or it may begin with an offender who invades a victim's online life and immediately establishes a threatening extortion relationship specifically to acquire sexual abusive images (Cooper et al., 2015);
- Sexual assault, particularly attacks facilitated with drugs or alcohol, with associated production of images or videos. The images or videos then may be used to blackmail a victim into silence, or as a means of exerting power and control to further degrade, humiliate, and shame the victim (Cooper et al., 2015).

Of all the types of child maltreatment, CSA and many types of CSE are the most difficult to confirm. In other forms of abuse a physical examination often will reveal visual evidence, such as bruises or pattern injuries consistent with battering. Similarly, evidence of nutritional neglect is fairly easy to note with the naked eye or by comparing the height and weight of a child on a growth chart indicating age-appropriate growth rates. Once a medical evaluation for organic causes is conducted and alternative care and nutrition are provided to encourage gradual weight gain and growth, confirmation of neglect can be made.

Rare disorders such as Munchausen Syndrome by Proxy (MSBP; also referred to as Pediatric Condition Falsification Syndrome) may require an in-depth assessment. In such cases where a victim child is being brought to medical care on a frequent basis, many pediatricians would already consider this form of abuse when considering differential diagnoses.

The diagnosis of psychological maltreatment can be difficult to determine on routine examination,

but a history obtained from a child victim or a non-offending caregiver can fairly easily reveal evidence of one or more of the six types of psychological maltreatment (Hibbard, Barlow, & MacMilla, 2012), shown in Table 1.

**Table 1** Types of psychologically abusive behaviors by caregivers

| Abuse | Description |
|---|---|
| • Spurning | • Belittling, denigrating, other rejecting<br>• Ridiculing for showing normal emotions<br>• Singling out or humiliating in public |
| • Terrorizing | • Placing in unpredictable/chaotic circumstances<br>• Placing in recognizable dangerous situations<br>• Having rigid/unrealistic expectations accompanied by threats if not met<br>• Threatening/perpetrating violence against child or child's loved ones/objects |
| • Isolating | • Confining within environment<br>• Restricting/undermining psychological autonomy |
| • Exploiting<br>• Corrupting | • Modeling, permitting or encouraging antisocial or developmentally inappropriate behavior<br>• Restricting/undermining psychological autonomy<br>• Restricting/interfering with cognitive development |
| • Denying emotional responsiveness | • Being detached or uninvolved, interacting only when necessary<br>• Providing little or no warmth, nurturing praise during any developmental period in childhood |
| • Mental health/medical<br>• Educational neglect | • Limiting a child's access to necessary health care because of reasons other than inadequate resources<br>• Refusing to provide for serious emotional/behavioral, physical health, or educational needs |

Adapted from Hart, Brassard, Binggeli, & Davidson (2002) and Bassard and Donovan (2006)

The production of abusive images is often associated with various forms of psychological maltreatment, particularly terrorizing (in sadistic imagery), isolating (in sextortion), and exploiting/corrupting (within the context of marketing for sex trafficking). Child sexual exploitation also can result in mental health diagnoses such as Posttraumatic Stress Disorder (PTSD), anxiety, depression, complex trauma, and non-delusional paranoia, for which there is limited (and typically no) access to necessary psychological health care.

Excluding cases of stranger abduction and sexual assault, the most common offender in CSA and CSE is a family member, acquaintance, or someone within the victim's circle of trust. This trusted adult often contributes to tacit compliance on the part of the child either because the child does not recognize the prurient nature of the relationship or because the child accommodates to the sexual abuse. An emerging concept is *victimization within a third dimension*. This third dimension is the digital person as an extension of the physical person (Bassard & Donovan, 2006).

## The Third Dimension and Victimization

The concept of a "digital self" or "digital person" is often referred to as one's "digital footprint" left in cyberspace. Youth in particular are more likely to communicate in the digital world than in person; they tend to communicate via social networks, communication apps, and text messaging (Bassard & Donovan, 2006). Many scholars have begun to recognize that this "new state of the digital self" can be profoundly harmed by the presence of sexually explicit images in cyberspace and associated cyberbullying. At times this assault can even lead to *cyberbullicide,* or suicide indirectly or directly influenced by experiences with online aggression. Lenhart (2015) noted that in recent years online peer aggression among adolescents has increased, and many high-profile cases involving teen suicide have occurred as a result of the youth's harassment and abuse over the Internet.

If highly sexualized behaviors are noted online or through cell phone technology (e.g., sexting and texting), careful consideration must ensue since at first glance these images might appear to be self-produced attempts to gain attention. In fact, they may be images produced as a result of blackmail (e.g., sextortion cases), as offenders force the production of sexual abusive images camouflaged as online self-production. Seemingly self-produced images may also be the result of coercion by traffickers interested in marketing the images for financial gain (Hinduja and Patchin, 2010; Wolak & Finkelhor, 2011).

## Differences Between Child Sexual Abuse and Child Sexual Exploitation

Delayed verbal disclosure is the rule more than the exception in child sexual abuse cases. One study found the mean age of disclosure of child sexual abuse is 18, whereas the mean age of victimization was 8 (Cooper, 2015a, 2015b). The beginning of an investigation in these types of crimes most commonly occurs as a result of four different events: (1) a victim makes an outcry; (2) there is an eyewitness to the abuse; (3) a child presents with a medical condition (e.g., a sexually transmitted infection [STI]); or (4) a child begins to display changes in behavior that leads a caregiver to question him/her about possible sexual abuse, ultimately resulting in a disclosure.

Research has shown that during their childhood years female children make outcries that abuse is occurring in approximately 12% of cases (Lamb & Edgar-Smith, 1994). If there is a disclosure, the overwhelming number of male and female victims disclose as adults rather than as children. However, a significant majority of CSE victims do not disclose, even when an eyewitness reports seeing the images online, and this report is made known to the child. The nondisclosure and actual denial is referred to as "double silencing." The child initially is silenced because of the sexual abuse, and his or her silence is doubled by the memorialization of that abuse in digital images. This causes additional guilt, shame, and self-blame to the digital self (Hanson, Resnick, Saunders, Kilpatrick, & Best, 1999).

With the increasing access to information and communication technology, child sexual abusive images abound and depict numerous ways in which children are sexually victimized by offenders who wish to share the evidence of their criminal behaviors with like-minded online contacts. This form of sexual exploitation has revealed the extent of depravity associated with child sexual abuse, even to include child torture, so much that investigators and medical professionals need no longer try to imagine the numerous ways in which children can be hurt by sexual contact (APSAC, 2016).

Most professionals in the field of child abuse have the skillset necessary to evaluate typical CSA cases involving one offender and one victim. A smaller percentage of professionals have obtained additional training for a *multivictim* case, where:

- triage of a pool of potential victims is necessary;
- a special team is organized to handle the community reactions and diminish the risk of vigilanteeism;

efforts are taken to assure evidence is gathered and catalogued in an organized fashion; and

- attempts are made to minimize the risk of child-to-child contamination of the history which often occurs as a result of persistent questioning by well-intended family members and friends.

In CSE cases, however, competency requires an understanding of a case with *multiple offenders*. These individuals:

- download, possess, and trade images, and/or

  share in group enticement of a youth, and/or

- sexually assault one child (often 8–10 times a day, 7 days a week) by the purchasers or "demand" in sex trafficking.

Most child abuse professionals are just beginning to be trained to address the complexity of these types of cases.

Within the context of recovery, in the case of CSA without images, once the abuse is over the child and family can move forward with counseling support and a sense of safety from further victimization by the specific offender. With CSE, however, the presence of images presents as a problem that gets bigger rather than smaller over time and as the circulation of the images grows. Victims and their families become more physically, emotionally, and often spiritually, wounded (Children and Young Persons, 2006; Cooper et al., 2015).

With both CSA and CSE the victim impact immediately spreads to harm non-offending family members. With CSE cases, however, greater harm tends to be inflicted because pervasive paranoia can become a part of parents' and caregivers' thoughts for years to come—even after the victim has become an adult. There have been reported cases of pedophile networks who continue to dialogue online with former child victims, and some have attempted to cyberstalk them. Their goal is to ultimately locate them as young adults to rape them "to see if she still likes it" (Cooper et al., 2015).

Another difference between CSA and CSE is victimized children and families often completely change their lifestyles to protect the child from ever having his/her digital self discovered. Parents of victimized children indicate they remain wary for years that strangers will recognize their child, even if the victimization occurred during the infant or toddler years. This parental paranoia is particularly heightened if they have chosen to receive notifications when offenders are arrested and convicted of possessing abusive images of their child. One parent reported that although her child was victimized as an infant, by the time the child had reached the late teen years she had received more than 12,000 notifications regarding convictions of offenders who had been arrested for downloading, trading and/or possessing images of the child's abuse (Cooper et al., 2015).

A final dynamic that differentiates the victim impact of CSA and CSE is the mental health outcome. CSA victims frequently are described as being at increased risk of developing PTSD, anxiety, and/or depression. CSE victims, on the

other hand, are at increased risk not only of developing these DSM-5 diagnoses, but are often cited as being at increased risk for poly-victimization, as well as developing complex trauma and/or non-delusional paranoia (Williamson & Clawson, 2010).

## Medical Evaluation of Sexual Exploitation Victims

Forensic interviewing of a child with videotape or audiotape documentation is the best practice for obtaining investigative information regarding possible child sexual abuse (Muir, 2005). Results of the forensic interview and other law enforcement information should be shared with the health care provider before he/she interacts with the child victim. It is important to keep in mind during the forensic interview that children who have been victims of the production of sexually explicit images may not realize the acts were recorded, or they may not recall the details surrounding the production of the contraband, except in some cases where the offender showed the images to the victim. Consequently, if they are able to express what they recall, it will typically reflect sensory memory (e.g., what they felt, smelled, tasted, heard, saw).

Since the child does not know what the assailant saw, exposing him or her to the abusive images is contraindicated. The practice introduces visual content into a child's memory that he or she had not seen, and this may worsen the trauma impact. Adults are prohibited from viewing this type of contraband and certainly, children—and especially child victims—should not be shown content that is illegal for anyone other than the investigative team to view.

Another aspect of the forensic interview that should prohibit the exposure of victim children to images of their own abuse is that informed consent most assuredly should be obtained from the child's parent or legal guardian, as it is a misdemeanor in most states in the USA to expose a child to sexually explicit visual content. A child cannot give consent for this type of exposure, so obtaining parental informed consent supports the right of the child and family to protect the child

from any potential harm that could be caused by the investigation. To illustrate, one victim was shown video images of her rape and sexual torture 2 years after her rescue (when was 15 years old). She described the experience of being shown some of the footage of the live-streamed, sexually abusive video in these words:

> At sometime between my recovery and the trial, the FBI came to my house and they said 'We need to show you something and we need you to identify yourself in it'. And I didn't put two and two together and think that I was going to have to see … what they were going to show me. And they told me that my parents had to leave, because if they showed it to them, they [the parents] would be in trouble. So they sat me down and they opened the computer and they had me watch just a few seconds of a video … and it felt like a lifetime. In this video, my hands are bound above my head… I'm bruised … I'm crying and I'm being beaten. To be abused is one thing. To experience the pain … it's yours. To see it through somebody else's eyes … it becomes somebody else's. It's shared in a way that other people found pleasurable and also, now in my memories … they were my memories and I created them as I could … as I could handle the trauma. But now I have a very concrete image of what happened. It's … I can see it … it's not … in memories, typically you don't see youself, like a dream. You see it through your eyes or it's an emotion or a feeling or a smell or something that's sensory … purely sensory … but to see it so concretely … it was damaging … it was extremely damaging." (personal communication, 2015).

In many cases, parents are shown cropped sections of abusive images and asked to definitively identify their children. Usually they are not shown depictions of the actual abuse their children suffered. When canvassing professionals in this field, the current author learned that this practice is not conducted in other countries when forensic interviews are conducted with CSE victims. In fact, many professionals around the globe quite candidly indicated they felt this practice borders on inhumane.

## The Medical History and Examination

Excellent and current national protocols have been devised in the USA for the medical examination of pediatric and adolescent sexual abuse

and assault victims. Examiners should be qualified to evaluate children, and the use of these protocols is highly recommended (Girardet et al., 2011; U.S. Department of Justice Office on Violence Against Women, 2016).

The first part of the medical evaluation is the interview, primarily because it is the cornerstone of any medical evaluation. Information provided by non-offending caregivers and the child often predict whether physical findings can be anticipated. For example, a child indicates she was forced to shower and then, while nude, instructed to climb onto a bed with her legs spread-eagled while an offender watched her, photographed her, performed oral sex on her and then masturbated to ejaculation. Although child sexual abuse has clearly occurred and the victim potentially could have resultant psychological trauma, a physical exam several weeks to months later likely would be completely normal. The most important component of the evaluation may be the revelation that sexual abusive images were produced.

In addition to obtaining a comprehensive description of the sexual abuse or assault, the medical history should include a detailed history of the child's birth and general health, information typically provided by a non-offending parent or caregiver. A review of the child's symptoms is important to determine if any chronic concerns that may be seen in CSA cases have developed (e.g., poor sleeping, anxiety symptoms, bed-wetting, fecal accidents, abdominal pain, intermittent vaginal discharge or pain complaints, change in mood and demeanor, phobias). Documentation of medications a child might be taking regularly is also important. Examiners should document details such as who administers the medicines and whether any side effects are present such as sleepiness or change in mental status.

Family history is relevant, particularly if there is a history of alcohol or substance abuse, family violence, criminality, child sexual abuse in other relatives, or if the child has been in out of home care. Such adverse childhood experiences, when combined with child sexual abuse, can predict worsening outcomes for the health and well-being of the victim child. If adverse experiences exist, proactive measures may be taken to address

neurodevelopmental disruption, social, cognitive and emotional dysfunction, and eventual adoption of health risk behaviors by the child as he/she grows older. Of course, children who reside in a violent home also may be physically abused; it has been estimated that about 15% of children who have disclosed sexual abuse have also had physical evidence of assaultive battering, and as many as 25% of children who are being evaluated for physical abuse later disclose sexual abuse (Finkelhor, Turner, Hamby, & Ormrod, 2011).

The medical history obtained from the child should take place without a parent present since many children feel the sexual abuse is their fault and thus may be reluctant to confess details of events associated with self-blame and feelings of shame. The child should be reassured that they are not in trouble, and that the conversation is for medical reasons to ensure their body will be well. The medical history can be supplemented by the guidelines of existing forensic interviewing protocols such as the RATAC approach to assist in gaining information (Anderson et al., 2010).

Open-ended questions are important after the health care provider establishes *rapport* with the child. *The Cornerhouse Forensic Interview Protocol,* a well accepted forensic interview model, indicates the health care provider next would engage the child in defining his/her *anatomical* body parts. Further inquiry should be made to ascertain whether the child experienced *touching* on any or all parts of his/her body to allow for subsequent discussion of the *abuse* scenario(s). This allows the child to talk as much as possible in his/her own words about what happened. *Closure* of this form of interview should include an explanation of the physical examination that is to come, best demonstrated with a pliable doll that can be placed in all the exam positions. Health care providers can use this template to obtain a medical narrative from the child to include other questions about sensory memory as well as worries the child may be experiencing (Anderson et al., 2010). Because victims often deny abuse, professionals must be prepared to accept that the child may not be emotionally ready to discuss their abuse at the time of the interview. Further disclosure may occur at a later

date within the context of a therapeutic, rather than an investigative, relationship.

If the sexual exploitation involves an adolescent who has been enticed, extorted or trafficked, the medical history is obviously quite different. The health care professional should be respectful to the youth. Then, after rapport has been established through free association conversation, the interview should begin with what is worrying the youth. Some adolescents cannot disclose the details of their victimization; if they are able to, however, then maintaining an empathic and concerned demeanor is important. With trafficking victims, taking a reproductive health history and inquiring about intimate partner violence victimization are important to ascertain the health impact of the exploitation. Additional assessment areas include substance use, mental health status, and school performance (current or before they left school). Sexual orientation and gender identity also are important factors to consider when evaluating online behaviors, particularly with enticement victims. Victims of enticement may have used the Internet to sexually experiment, and they may have attempted to meet people outside their circle of trust as they explored their sexuality. If teen victims speak of severe insomnia and fearfulness at night, one should consider the possibility of some form of sextortion.

A second component of the medical interview should be a behavioral assessment. This includes, but is not limited to, questions regarding ongoing distress, anger problems, sleep disturbance, nightmares, school dysfunction, unhappiness, intrusive thoughts (particularly about the abuse), fearfulness, anxiety, self-injurious behaviors, and suicidal thoughts. This history should be obtained both from the caregiver as well as the child. When the examiner is alone with the youth, simpler questions can be posed about how he or she is feeling, and if the child is worried about anything.

If abusive images are known to exist and the child victim does not disclose this, or even denies that pictures were taken, the examiner may need to defer questions about the images to a later time when a more therapeutic relationship has been established between the child and a counselor. This will best allow the child to confront the

trauma of the abuse and the exaggerated feelings of guilt, self-blame and shame that can accompany child sexual exploitation (Muir, 2005).

At times, CSE victims obsessively worry that someone has seen their pictures, and this concern can hinder ongoing psychosocial development. This relative paranoia is an important behavioral aspect of child sexual abuse image victimization. The medical documentation should, however, reflect that the child is denying the existence of previously discovered child abuse images, as well as the likelihood the child is not ready at the point of the initial medical examination to discuss this aspect of the victimization. Such notation can assist in addressing concerns that might arise at trial, such as an insinuation or accusation the child lied about objective evidence of the abuse yet provided significant subjective history of grooming or other episodes of sexual abuse not depicted in the images.

Research from the UK by Palmer (2003) provides information about why children do not disclose that pictures were made of their sexual abuse. Based upon the responses of 80 victims of CSE through images, Palmer found five reasons that contributed to children's nondisclosure of this aspect of their victimization:

- The pictures made it appear as if they just "let it happen" and did not struggle against the will of the offender;
- The offenders sometimes told them to smile while they were being abused, and their coerced affect gave the appearance they were enjoying what was happening to them;
- The victim had been used to recruit other children (such as inviting them over to spend the night) and these friends were subsequently also abused and photographed, thereby compounding the degree of guilt the index child experienced;
- The victims were groomed or directed to masturbate themselves or have mutual sexual contact with other children; these behaviors increased their feelings of guilt, self-blame, and shame; and
- The victims were told the offender would inform a non-offending parent that the child was responsible for the abuse and did not make it stop. This type of threat consequently

made the child feel they were the cause of the sexual abuse and pornography production.

The third component of the medical evaluation is the physical examination. The key point for this type of examination is that unless the child is seen within 72 h of the most recent sexual contact, the examination has a high probability of having normal or nonspecific findings (Kellogg, 2005; Kellogg & Sugarek, 1998). The absence of significant findings may be explained by one or more of the following:

- Injuries to the genital and anal areas heal quickly and often leave no obvious scars or indications of prior damage. Consequently, the 72-h time frame is often the amount of time that will lead to complete resolution of any assault-related findings to these parts of the body.
- The actions of the offender may well be unassociated with any physical findings; however, if the examination is conducted within 96 h, forensic evidence (e.g., saliva and other body fluids) still might be evident.
- The nature of the abuse and the genital anatomy such as digital or foreign body penetration may cause tissue injury, but this will heal quickly.
- Once puberty has occurred, penile, digital or foreign body penetration in the vagina often is not associated with actual damage to the hymen.
- Penile-anal penetration has resultant physical findings in less than 1% of children according to research (Kellogg & Sugarek, 1998; McCann, Voris, & Simon, 1992), which means many boys will have a normal examination unless they are seen immediately after an assault and there are nonspecific findings of anal redness, tenderness, and bruising.
- Penile-oral penetration, even if very forceful, can leave very mild trauma evidence on the roof of the mouth of a child; this will typically resolve within 12–24 h.
- The use of lubricants may assist penetration, particularly of the anus, and will decrease the likelihood of any abnormal findings.
- The most common date rape drug is alcohol. It is often introduced silently with a "laced" drink, or nonchalantly during a social encounter when the offender is aware of the presence of a very high concentration of alcohol but the alcohol content is unknown to the victim. Subsequent inebriation may cause a victim to have little memory of a sexual assault. In these cases, the discovery of online evidence has been shown to lead to severe anxiety, PTSD, depression, and, in some cases, suicidality (Leary, 2016). The use of other date rape drugs such as flunitrazepam (Rohypnol), clonazepam (Klonopin, or Rivotril in Mexico), alprazolam (Xanax), Ketamine (Ketalar), and amyl nitrite (Aspiral or Vaporole) often cause muscle relaxation, sedation, and amnesia. The illegal administration of these chemicals can cause such laxity of the tissues that penetration may not result in physical findings.

An important aspect of the medical examination involves a nexus of the *behavioral history* and the *behavioral observations* at the time of the interview and physical examination. The behavioral history might include onset of irritability, labile mood with crying every day, and withdrawn behaviors when with the rest of the family and at school. Sexually explicit behaviors such as caressing a parent's genitals outside their clothing, reenacting oral sex behaviors with a toy, or similar behaviors also are examples of relevant behavioral history (Fig. 1).

Observed behaviors at the time of the interview and examination might include a sudden change in affect, after rapport has been established with a child, when questions about touching are asked. Examples of observed behaviors include assumption of a fetal position, thumb-sucking, crying, and apparent anxiety with hand tremors and a fearful expression, as well as extreme agitation with only a visual genital
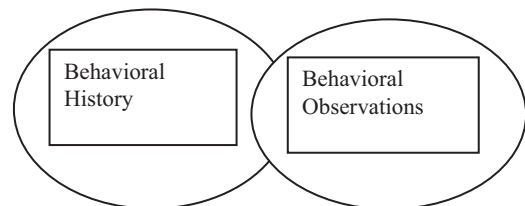


**Fig. 1** Behavioral history and behavioral observation

examination. Other observed behaviors include a lack of physical boundaries with the examiner, or even self-stimulatory or provocative behaviors. These types of behaviors in young children raise concerns for experiential memory or exposure to a highly sexualized environment such as easy access to pornography in the home. Additional observed behaviors might include very sexually explicit doll play.

Multiple victim sexual abuse and exploitation is found in the sex trafficking of minors. Children may be sold by their own family members to multiple offenders, either from their homes or via online sex rings of like-minded offenders. Children may be sold in brothels, massage parlors, sexually oriented businesses such as strip clubs or casinos, truck stops, mobile homes serving migrant workers, via online classified ads, or on the streets. The trafficker or pimp may be a single individual marketing one or more children and youth, a member of a gang who sells female gang members, or part of a highly organized enterprise which recruits, harbors, obtains, provides, and transports children to profit from sexual acts. Often, but not necessarily, these acts occur by force, fraud, or coercion. These forms of sexual abuse are referred to as commercial sexual exploitation of children, and if children are not trafficked internationally, they are categorized as domestic minor sex trafficking victims (Anderson et al., 2010). The observed behaviors of these children and youth may appear exhibitionistic, but these are learned behaviors and should be documented for further exploration within a therapeutic relationship.

Victims of trafficking are particularly vulnerable to severe genital and/or anal trauma as well as sexually transmitted infections. They are also likely to be involved in other forms of exploitation such as the production of child sexual abuse images and videos for personal or commercial use. The evaluation and treatment of these victims should include assistance from local nongovernmental organizations who possess experience working with children who have been groomed through romance, forced to engage in sexual acts in order to meet their survival needs, intentionally addicted, promised gainful employment to support family members, or provided support for a drug addiction and sold to multiple perpetrators over time. It is important to recognize that extortion, threats and intimidation, force, fraud, coercion, and frank abduction may be part of the victimization of these children whose abuse is usually for the sole purpose of providing financial gain to a trafficker.

## Physical Examination

In circumstances where trained medical evaluators are available, obtaining a medical examination is the standard of care in child sexual abuse cases. However, there exists some controversy about the utility of such exams since the majority will be normal. Further, there is a concern the exam itself may cause psychological trauma to a child who may have been emotionally damaged by the exposure of his or her genitals to an offender.

In the hands of a trained examiner, however, a child sexual abuse examination is neither painful nor traumatic, and it is always conducted within the context of a total body examination. The examiner will usually identify himself/herself as a doctor or forensic nurse and will reassure the patient (and often the parent) that the goal of the exam is to make sure that the child's body is well.

There are six reasons for obtaining a complete medical evaluation of a victim of CSE:

1. To ensure no acute signs of trauma to the tissues exist (e.g., bruises, bite marks, sucking patterns, and other indications of injuries);
2. To determine if there is evidence of possible long-term organ damage associated with chronic abuse (e.g., evidence of abnormal connections between the vagina and rectum, secondary to severe trauma);
3. To ascertain whether there is laboratory evidence of any sexually transmitted infections (STIs). Approximately 5% of sexually abused children acquire an STI from their victimization (Cooper, 2015a, 2015b);

4. To retrieve forensic medical evidence such as stains of semen, saliva, and vaginal fluids which may yield a DNA profile linked to a suspected offender. Semen in the vagina or anus may be detectable for up to 72 h;
5. To assess if mental health problems (e.g., PTSD, anxiety, depression, paranoia, or suicidality) are present, with appropriate risk assessment and plans for treatment;
6. To determine to the best degree of medical certainty if a crime against a child has occurred to facilitate collaboration with investigative agencies. This determination can help ensure the patient will be released to a safe environment, and that appropriate information is provided to the criminal justice system to prevent further victimization of other children.

A health care provider should conduct a complete physical exam, paying close attention to signs of physical abuse, neglect, and self-injurious behaviors. Documentation should be made of any injuries to extremities that might be consistent with defense wounds, as these injuries are often seen in acute sexual assault as well as potential life threatening pattern injuries such as strangulation marks or scleral (whites of the eyes) hemorrhages indicative of severe choking. Any indications on the skin that might indicate bondage, such as ligature marks around the wrists or ankles, are also very important to document since victims who are extremely traumatized, or were drugged during an assault, may be unable to accurately describe any forms of abuse they may have experienced.

The presence of blunt force trauma injuries, evidence of branding with specialized tattoos, signs on the skin of intravenous drug use, dental decay from substance abuse (e.g., methamphetamine), history of prior facial, rib or long bone fractures, and significant skin laceration scarring (secondary to lack of suturing) are types of evidence of the chronic violence seen in sex trafficking victimization. Traumatic brain injury is underdiagnosed in this patient population, and it is important to carefully determine if victims have experienced loss of consciousness. Documentation with a body map is helpful, and

empathetic questioning about each injury will convey to the survivor that there are no negative judgements involved in the patient's health care.

Sexual maturation ratings (SMR) should also be included in the evaluation, with recognition that a female child may have complete adult sexual maturity, defined as breast development of Stage 5 (referred to as B5; breast development at stage 5 or adult), and pubic hair development of Stage 5 (PH5; pubic hair distribution at stage 5 or adult) by the age of 14–15 years. A completely prepubertal child's sexual maturation rating will be described as B1, PH1. Avoidance of the use of terminology surrounding Tanner Stages of pubertal maturation is recommended; in a letter written by Drs. James Tanner and Arlyn Rosenbloom, they clarified that these stages of puberty should not be used to assess children whose images are specifically depicted in child abusive imagery evidence (Greenbaum & Crawford-Jakubiak, 2015). The SMR terminology is more universally accepted, and the terms do not link specific ages to any particular stage.

Signs of trauma should be carefully documented photographically, if possible, as well as described in written format in the medical record. Specific attention should be given to areas of the body that are likely to be associated with sexual activity, such as the mouth (e.g., torn frenulum under the tongue or upper lip indicative of violent forced fellatio), the neck (e.g., sucking marks), the breasts (e.g., pinch, sucking, or bite marks), the abdomen (e.g., bite marks, blunt force trauma), the genitalia, buttocks, inner thighs, and anus. For female children, a careful examination of the vaginal and perineal area is indicated, to include any evidence of trauma or discharge. Documentation of the condition of the labia majora, labia minora, vaginal orifice, hymen, urethra, periurethral tissue, fossa navicularis, posterior fourchette, perineum, and perianal tissues is very important. For boys, the penis, scrotum, perineum, and perianal tissues should also be documented with particular attention to sucking marks, bruises, scars, bite marks, or discharge (Cooper, 2015a, 2015b; Rosenbloom & Tanner, 1998). A body diagram is helpful in illustrating findings.

## Examination Findings

### Absence of Medical Evidence

The most common physical examination finding in CSA and CSE cases is a normal exam. As cited previously, many types of victimization leave no evidence on the child's body, but certainly *there is evidence in the child's mind*. Despite the absence of physical findings on the body, if a child provides a sexual history that is outside the realm of normal psychosexual development, includes sensory details (e.g., taste, tactile sensations, smells, visual memory or auditory sounds), and/or a recollection of words spoken from the perpetrator that fit cognitive distortions common to sex offenders (e.g., descriptions of the child "seducing" the offender and his "succumbing" to her desires), these findings would be considered *experiential memory*.

Experiential memory refers to descriptions made by a child that are based on what he or she actually experienced. Examples include the fact a child could not typically describe the taste of ejaculate without having experienced such a memory, or describe the offender's consistent rhythmic grunts during sexual intercourse. Other examples of experiential memory include painful forced anal penetration with resultant difficulty in defecation or painful urination for a day or so after sexual abuse.

Additional reasons for the absence of medical findings include circumstances such as penile-oral and penile-vaginal contact, digital rubbing of the vagina, manual masturbation of a child's penis or a child who is coerced to masturbate an adult, as well as many other types of sexually abusive behaviors (e.g., voyeurism). Even when there has been injury to the tissues of the anus or particularly the vagina, healing is rapid and often leaves no residual findings (Kellogg, 2005; Kellogg & Sugarek, 1998). Scientific forensic examination of a victim may result in positive findings (e.g., the presence of semen, saliva or vaginal secretions). These fluids may yield a DNA profile even when medical findings are inconclusive.

Often both parents and the child are anxious to know if the child's body was violated or permanently damaged. A health care provider's response to this concern is very important, and reassurance should be given that the child is going to be healthy and fit, that the examination is consistent with the history the child has provided, and that there is no reason to disbelieve the history the child has provided (unless the interviewer has strong misgivings that the child has been coerced to fabricate or the reported history is too scripted or rote to seem reliable).

### Medical Findings

Diagnostic features of abuse are most commonly seen in the child's history and behavior. The physical examination is often normal because of the lapse in time from the sexual assault to the disclosure of the child victim. Positive physical findings and laboratory evidence is most likely to be found within 72–96 h after vaginal or anal trauma. In circumstances which would not leave detectible findings (e.g., voyeurism, frotteurism, fondling, and many times forced fellatio), the physical exam will be normal.

Physical signs *diagnostic* of penetrating injury of the genital, anal, or oral areas include:

- Fresh lacerations or bruising of the vaginal tissues, the hymen, the labia, the anal tissues, and the frenulum of the tongue; or fresh bruises to the palate or posterior oral pharynx as may be seen with forced violent fellatio;
- Old tears of the hymen which may have healed with scarring and associated interruption of the hymenal margin;
- An acute or healed tear in the posterior aspect of the hymen that extends to or nearly to the base of the hymen, or a markedly decreased amount of hymenal tissue, or absent hymenal tissue in the posterior aspect (McCann, Voris, & Simon, 1992);
- A healed scar extending beyond the anal margin onto the perianal skin in the absence of a history of an accidental trauma. Abnormal anal findings are very rare in children. Even when offenders have confessed to anal penetration, only 1% of children have any evidence of anal findings (Kellogg & Sugarek, 1998).

Signs that may be *supportive,* but not diagnostic, of sexual abuse include:

- Injury to or scarring of the posterior fourchette or fossa navicularis. There may be a notch which indicates a healed tear typically of the posterior hymenal edge;
- Inflammation, swelling, or minor abrasions of the genital area;
- Anal laxity without any other explanation (such as chronic severe constipation or the presence of large amounts of stool in the rectal vault);
- Reflex anal dilation greater than 2 cm in the absence of an empty rectal vault;
- Acute changes of redness, swelling, fissures, and venous congestion with associated bruising.

An examiner should complete a careful medical history to exclude other conditions, such as:

- Accidental injury to the genital or anal area with or without bleeding;
- History of presence of labial adhesions (which when spontaneously lysed cause bleeding of the labia, for a few hours after the lysis, but no evidence of trauma to the hymenal tissue);
- Infection;
- Local skin conditions, particularly lichen sclerosis;
- Constipation;
- Poor hygiene;
- Allergies to topical creams, soaps, or other agents;
- History of self-injurious behaviors or insertion of foreign bodies into the genital or anal areas (which may represent a behavior associated with prior sexual abuse) (Muram, 1989).

It is rare that a sexual exploitation victim is discovered immediately after a sexual encounter with an offender, and if more than 96 h have passed since the last sexual encounter the medical examination likely will not require forensic evidence in the form of a rape kit. The exception to this general rule is the fact that with children, 43% of forensic evidence of sexual assault is found on their clothing. Therefore, collection of the clothing is very important (Girardet et al., 2011).

The history, behaviors, and physical findings, as well as laboratory results, assist in making the diagnosis of CSA and/or CSE. In addition, all these parameters may be normal, but if there is memorialization of sexual abuse by images or videos, abuse has occurred. The only exception to this circumstance is if computer forensic analysis reveals that images in a collection of child sexual abuse images have been morphed or digitally altered to combine the face of one victim with the body of another.

## Sexually Transmitted Infections and Child Sexual Abuse

At times, a child whose images are in cyberspace will present with a sexually transmitted infection (STI). Certain types of sexual exploitation have a higher risk of STIs, such as in the circumstances of sex trafficking and sex tourism. In the circumstance of sex trafficking victimization, often the youth are taken to county public health STI clinics by an individual who is part of the trafficker's enterprise. In such sites a thorough history and examination may have yielded clues to the extensive victimization, but more often these visits constitute missed opportunities for rescue. Many possible hypotheses are proposed by non-offending and offending caregivers. There are circumstances where infections are acquired during birth; these include gonococcal eye infections; herpes involving the skin, eye, oral mucosa, or brain; Chlamydia inoculation of the eye(s) leading to conjunctivitis; or transmission of the human papilloma virus (HPV) causing very slow-growing condyloma acuminata (genital warts) which often appear on a child's body as long as 2–3 years after birth. In other circumstances, exposure prenatally to an STI such as syphilis can result in developmental disabilities. These sexually transmitted infections are not acquired during sexual abuse (Table 2).

**Table 2** Implications of commonly encountered STDs for the diagnosis and reporting of sexual abuse of infants and prepubertal children

| STD confirmed | Sexual abuse | Suggested action |
|---|---|---|
| Gonorrhea[a] | Diagnostic[b] | Report[c] |
| Syphilis[a] | Diagnostic | Report |
| HIV infection[d] | Diagnostic | Report |
| *Chlamydia trachomatis* infection[a] | Diagnostic[b] | Report |
| *Trichomonas vaginalis* | Highly suspicious | Report |
| *Condyloma acuminata* (anogenital warts) | Suspicious | Report |
| Herpes simplex (genital location) | Suspicious | Report[e] |
| Bacterial vaginosis | Inconclusive | Medical follow-up |

Adapted from Kellogg (2005)

[a]If not perinatally acquired and rare nonsexual vertical transmission is excluded

[b]Although the culture technique is the "gold standard" current studies are investigating the use of nucleic acid-amplification tests as an alternative diagnostic method in children

[c]To the agency mandated in the community to receive reports of suspected child sexual abuse

[d]If not acquired perinatally or by transfusion

[e]Unless there is a clear history of autoinoculation (American Academy of Pediatrics, 2003)

## Female Genital Mutilation or Female Genital Cutting

Based on cultural practices and some aspects of child sexual abuse, a barrier to any type of sexual assault examination involving genito-urinary evaluation might result from the presence of female genital mutilation (FGM). Another term for this practice is female genital cutting (FGC). These terms refer to the piercing, cutting, removing, or sewing closed all or part of a girl's or woman's external genitals for no conceivable medical reason. Cited by the World Health Organization as a violation of human rights, FGC has no health benefits and comprises all procedures that involve partial or total removal of the external female genitalia, or other injury to the female genital organs for non-medical reasons. It is nearly always carried out on minor girls and affects about 140

million girls and women worldwide. The procedures can cause severe bleeding, problems with urinating, and later cysts, infections, infertility, complications in childbirth with increased risk of newborn deaths and/or death of the child FGM victim at the time of the procedure (Watkins, 2005).

## Summary

Child sexual exploitation is the insult to the injury of child sexual abuse (Cooper, 2016). This form of victimization has numerous means of harm to children: abusive images (online or offline), intrafamilial trafficking, cyber-enticement with online grooming, sextortion (or blackmail) usually for the production of abusive images made to look as sexual attention-seeking behaviors, sex tourism, the commercial sexual exploitation of children, and production of abusive images within the context of sexual assault. Self-produced images and sexting, while not abusive in nature, have the potential of resulting in juvenile justice actions, and may become the source of severe bullying and cyberbullying with an increased risk of suicidal ideations or completed suicide.

These serious consequences of child sexual exploitation cannot be underestimated. Health care professionals must become educated regarding this highly prevalent form of victimization. The presence of nearly 200 million abusive images in cyberspace is a statistic that demands competent and well-informed care for victims; only through adherence to best practices can we hope to diminish the complex trauma so evident in this form of child abuse.

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# Domestic Violence

Lenore E.A. Walker and Carlye B. Conte

## Description of the Problem

Domestic violence has become one of the most studied social problems over the last several decades. It is considered a serious and widespread public health concern that occurs in more than 10 million households in the USA each year (Black et al., 2011; Breiding et al., 2014). Domestic violence is described as a complex pattern of physical, sexual, emotional, psychological, and/or economic abuse that is intended to gain power and control over a current or former intimate partner (Office of Violence Against Women, 2015).[1] It crosses all sociodemographic boundaries and affects individuals of various ages, races, ethnicities, cultural backgrounds, sexual orientations, religious affiliations, and socioeconomic statuses. Yet one of the most consistent findings in the literature is the gendered nature of domestic violence—men are the predominant perpetrators and women are the primary victims.[2] In fact, studies have shown that the rate of domestic violence victimization is nearly five times higher for women (Tjaden & Thoennes, 2000). Not only are women more likely to be victimized, but they are also more likely to experience multiple forms of domestic abuse, to be seriously injured and require medical attention, and to suffer greater short-term and long-term consequences as a result (Black et al., 2011; Catalano, Smith, Snyder, & Rand, 2009). The adverse consequences of domestic violence are not limited to the individual being abused but rather extend to the entire household. Most abused women have minor children and more than 15 million children are exposed to domestic violence each year (McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green, 2006). Half of these children live in households that are characterized by severe and chronic domestic abuse. Society also suffers from the economic burden of domestic violence that has been estimated to cost billions of dollars in healthcare services and lost productivity each year (Brown, Finkelstein, & Mercy, 2008; National Center for Injury Prevention and Control, 2003). Statistics only suggest the enormity of the problem as

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[1]Throughout this chapter the terms domestic violence, intimate partner violence, spousal abuse, and battering are used interchangeably.

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[2]The gendered nature of domestic violence is reflected throughout this chapter as we refer to women as victims and men as perpetrators although it is important to note that exceptions to these dynamics do exist.

domestic violence remains largely hidden due to the intimate context in which it occurs. Despite attempts at eradication domestic violence has continued to persist causing widespread physical, psychological, social, and economic damage to individuals, families, communities, and society as a whole.

## Historical Background of Domestic Violence

Historically, domestic violence was viewed as a private matter and men's use of violence against women was socially, culturally, and legally sanctioned. Del Martin (1976) and others have documented the ways in which marital relationships and women's subordination within the family perpetuated the occurrence of wife beating throughout history. Marriage in most societies began as a patriarchal institution in which women were viewed as property and expected to obey the male head of the household. Men were considered legally responsible for women's behavior and had the authority to 'chastise' or discipline their wives. Common law placed some restrictions on the extent and severity of abuse that men could inflict upon women but these restrictions were often ignored. Corporal punishment was permitted so long as it did not result in serious injury and the 'rule of thumb' allowed men to beat their wives so long as the stick or rod was no wider than the circumference of the man's thumb (Dutton, 2006). The practice of beating one's wife in the most of the Western world became illegal at the end of the nineteenth century, although these laws were minimally enforced at that time. Domestic violence was viewed as a family matter or personal dispute rather than a form of violent crime against women. Courts often turned a blind eye and placed greater importance on the sanctity of marriage and the family than on the safety of the abused (Schneider, 2000).

Prevailing public attitudes, particularly in the USA, began to shift during the late 1970s and early 1980s as feminist activism and the 'Battered Women's Movement' politicized domestic violence, challenged social inaction, and raised public consciousness about the physical, sexual, and emotional abuse that women experienced within their own homes (Walker, 2009). Increased congressional funding and the criminalization of domestic violence during the late twentieth century led to further reformation. Vigorous arrests were made based on probable cause and the police demonstrated that offenders would be held accountable for their actions. Mandatory arrest laws were enacted, no-drop policies were implemented, criminal prosecutions were encouraged, and offender-specific pretrial intervention programs were taken seriously. Domestic violence shelters emerged and provided a safe haven for abused women and their children to escape from the confines of domestic violence. Advocates and professionals called for increased victim assistance services, prevention programs aimed at eliminating violence against women, and appropriate interventions based on models of empowerment. Despite the significant strides that have been made in the fight against domestic violence, the ultimate goal of eliminating violence against women in the home has still not yet been achieved.

## Epidemiology

The prevalence and incidence of domestic violence can be estimated from various data sources including crime statistics, official records, and national surveys, although each method is not without its own limitations. Official crime data is collected by local law enforcement agencies, submitted through state-based reporting systems, and then aggregated on a national level. Participation in state-based reporting systems is largely voluntary and estimations derived may therefore only be reflective of the agencies that choose to participate. The aggregation of data on a national level is complicated by state variations in definitions of domestic violence and the factors that constitute an intimate relationship (e.g., cohabitation, sexual orientation). Official crime

statistics are limited to acts of domestic violence that are in violation of the law that fails to capture the true scope of domestically abusive behaviors. Further, official crime data only represents domestic violence incidents that have been reported to police, yet this has been estimated to be between one-fourth to one-half of all victimizations (Tjaden & Thoennes, 2000; Truman & Langton, 2015). Survey methodology is an alternative approach that extrapolates data collected from nationally representative samples to estimate rates of domestic violence. This method overcomes the shortcoming of underreporting, yet is limited by its reliance on victims and offenders to self-report criminal behaviors. A failure to operationalize domestic violence has led to discrepant findings that limits the ability to compare results across survey surveillance methods. The lack of differentiation between minor forms of relational conflict and domestically abusive behaviors can further complicate estimation rates. Measuring domestic violence as a discrete act and quantifying violence based on specific incidents undermines the complex and chronic pattern of abuse that most victims experience in battering relationships (Stark & Flitcraft, 1996). Overall, although both official crime statistics and national surveys can provide insight into domestic violence victimization and perpetration the current data collection methods do not appear to adequately capture the chronicity, severity, and complexity of intimate partner abuse.

## Nonfatal Domestic Violence

The National Incidence Based Reporting System (NIBRS), which is a component of the Federal Bureau of Investigation's (FBI) Uniform Crime Reports (UCR), is the main data collection method for official crime statistics. In 2013, a total of 353,343 incidents of intimate partner violence were reported to the NIBRS, yet the number of agencies that submitted crime data during that collection period was estimated to represent only 30% of the total population (FBI, 2013; Puzzanchera, Smith, & Kang, 2015). Women were victims in 78% of all incidents perpetrated

by a spouse, ex-spouse, or current intimate partner. The majority of incidents were classified as simple assaults and a little more than half of all incidents resulted in the arrest of the offender. The National Crime Victimization Survey (NCVS) is administered annually by the Bureau of Justice Statistics (BJS) and used to collect data on various forms of violent and nonviolent criminal victimizations. Based on findings from the NCVS the rate of domestic violence has steadily declined over the last 20 years (Truman & Morgan, 2014). Between the years of 2003 and 2012, intimate partner violence represented 15% of all violent victimizations in the USA and was higher than all other forms of family violence. There were nearly one million incidents of domestic violence reported each year and simple assault accounted for a little less than two-thirds of all of the incidents. Domestic violence was most commonly perpetrated by a current or former dating partner and the rate of domestic violence was highest among individuals who were separated or divorced. Women comprised 82% of victims and were more than three times more likely to experience serious domestic violence (e.g., rape, sexual assault, robbery, or aggravated assault). Individuals between the ages of 18 and 24, those who identified as two or more races, and individuals living in urban areas had the highest rates of victimization. Nearly one-fifth of all incidents involved the use of a weapon and half of all victimizations resulted in physical injury, yet only one-third of injured victims received treatment.

The National Violence Against Women Survey (NVAW) was sponsored by the National Institute of Justice (NIJ) and Centers for Disease Control and Prevention (CDC) and conducted between 1995 and 1996 to examine various forms of self-reported victimization among a nationally representative sample of men and women (Tjaden & Thoennes, 2000). This survey found that violence committed by an intimate partner accounted for 64% of all violence against women yet only 16% of all violence against men. A history of physical and/or sexual abuse was reported by 25% of women compared to 7.6% of men and these differential rates of violence became more pronounced as the severity of abuse increased.

Violence perpetrated against women tended to be more chronic, was of longer frequency and duration, and was more likely to result in serious injury. Less than half of all incidents were reported to police and around 30% of victims who were injured received medical services. Women who identified as American Indian or Alaskan Native reported the highest rates of victimization followed by women who identified as Multiracial, African American, White, and Asian Pacific Islander. Higher rates of domestic violence were reported among same-sex cohabitating couples, while men living with male intimate partners experienced more violence than women living with female intimate partners.

The National Intimate Partner and Sexual Violence Survey (NISVS) is sponsored by the Centers for Disease Control and Prevention (CDC) and was first administered in 2010 to determine the prevalence, characteristics, patterns, and consequences of intimate partner violence (Black et al., 2011; Breiding et al., 2014). This survey found that one in three women and one in four men reported a history of physical violence, sexual violence, and/or stalking by an intimate partner. This translates to more than 68 million women and men who have been victims of domestic violence at some point in their lifetime. Women were nearly two times more likely to report experiencing severe forms of physical violence which included being beaten, choked, burned, or assaulted with a weapon. Psychological aggression, which comprises expressive acts (e.g., name calling, insults, and degrading comments) and coercion (e.g., threats, monitoring, and controlling behaviors), was reported by nearly half of all men and women. Domestic violence was found to disproportionately affect individuals of diverse racial and ethnic backgrounds with higher rates among women who identified as Multiracial or American Indian or Alaskan Native.

In regards to sexual orientation, bisexual women reported the highest rate of domestic violence, the majority of whom had been victimized by a male partner (Walters, Chen, & Breiding, 2013). Half of all women first experienced domestic violence between the ages of 18 and 24

and 22% were between the ages of 11 and 17. Women were more likely to report multiple forms of domestic violence victimization and were three times more likely to report being negatively impacted as a result. Overall, women reported significantly greater adverse physical, mental health, and economic consequences which included greater fear, concerns for safety, injuries, and symptoms of posttraumatic stress disorder (PTSD), as well as more days of missed work and a greater need for healthcare, housing, legal, crisis, or advocate services.

## Fatal Domestic Violence

Studies suggest that murder, suicide, and murder-suicide often occur within a domestic context and are precipitated by intimate partner violence. Women are at a greater risk of being killed by an intimate partner and are overrepresented among victims of domestic homicide (Dobash & Dobash, 2015; Ellis, Stuckless, & Smith, 2015). The Violence Policy Center (2015) analyzed homicide incident data from the Federal Bureau of Investigation's (FBI) Uniform Crime Reports-Supplemental Homicide Reports (UCR-SHR) and found that 895 women victims were killed by an intimate partner in 2013 which represented 62% of all female homicides. These homicides were most commonly committed with a firearm and occurred during the course of a domestic argument. In comparison, the vast majority of men are killed by a stranger (e.g., 95%) which indicates that the risk of being killed by an intimate partner is significantly higher for women (Catalano et al., 2009). Data from the National Violent Death Reporting System (NVDRS), which provides comprehensive death-related information obtained from medical examiners, law enforcement, crime labs, and death certificates, indicates that domestic violence is six times more likely to be a precipitating factor in homicides against women than men (CDC, 2014). Additionally, between two-thirds and three-fourths of cases in which a woman is killed by an intimate partner there is a documented history of domestic abuse (Campbell, 2007).

Domestic violence is also a significant risk factor for victim and offender suicidality; this risk increases in accordance with the severity of abuse experienced or inflicted (Golding, 1999; Jackson, 2007; McLaughlin, O'Carroll, & O'Connor, 2012). Research has shown that abused women are at an increased risk for suicidal threats and attempts (Cavanaugh, Messing, Del-Colle, O'Sullivan, & Campbell, 2011). For example, a study of abused women found that one-third reported having made a suicide attempt while living with an abusive spouse (Walker, 2009). Based on data from the NVDRS relational distress was identified as a precipitating factor in 30% of recorded suicide deaths; a greater number of male decedents had perpetrated domestic violence in the month prior to their deaths whereas a greater number of female decedents had been victimized (CDC, 2014).

Suicidal ideation and homicidal intent do not occur in isolation as offenders often fluctuate between the two extremes (Walker, 1989). Murder-suicide represents a small subset of all violent deaths with an incidence rate under 0.001% (Eliason, 2009). Despite the rarity of its occurrence studies have found that the majority of these events are committed by male offenders and occur within the context of an intimate relationship (Eliason, 2009; Logan et al., 2008). It has been estimated that one-third of domestic homicide events are murder-suicides and studies have shown that the risk of homicide increases for female victims when the male partner demonstrates suicidal tendencies (Campbell et al., 2003). Overall, women are five times more likely than men to be killed by an intimate partner and 16 times more likely to be killed by an intimate partner during the course of a murder-suicide (Ellis et al., 2015).

Although battered women do kill their batterers, it is usually as a last resort and occurs during episodes where they believe the violence is escalating and they need to use self-defense (Walker, 1979). In the vast majority of cases in which a woman kills an intimate partner there is a history of domestic violence victimization (Campbell, 2007). During the past 30 years, the self-defense laws have been modified to make them more rea-

sonable to explain battered women's actions and their perceptions of imminent danger (Walker, 1992). For example, women are rarely able to use parts of their body as weapons to defend themselves as is common with men, and so, case law has made it possible for them to use a weapon to equal the force (State v. Wanrow, 1977). A history of the domestic violence in the relationship is also permitted as evidence in trials where it is alleged. Normally, evidence of other crimes are considered more prejudicial than probative, but in this case, it is necessary to demonstrate the pattern of domestic violence that gives rise to the fears that motivate self-defense. Expert witness testimony is often used to assist the jury in understanding the effects of domestic violence trauma necessitating self-defensive actions even when the actual facts surrounding the incident may not show the woman's desperation. This psychological evidence is often necessary to demonstrate the extent and severity of abuse and justify the woman's right to self-protection.

## Offender Characteristics

Research into the characteristics of domestic violence offenders[3] indicates their heterogeneity, aside from the fact that the predominant gender is male (Hamberger, 2005).

Although some have insisted that women also commit domestic violence against male partners (or in some cases, female partners) almost all studies indicate that women are more likely to be victimized and significantly more likely to be injured than men (Tjaden & Thoennes, 2000). As stated previously, the failure of data sources to distinguish between the content, context, and consequences of domestic violence has led many to question and criticize the claims that have been raised regarding gender similarities in domestic violence perpetration (Klein, 2009). This lack of differentiation means that a man who engages in serious physically abusive behaviors aimed at

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[3]The terms offender, batterer, and abuser are used interchangeably to represent the perpetrators of domestic violence.

control and intimidation would be coded similarly as a woman who slaps or pushes her partner in self-defense in the midst of an altercation. The literature has also identified fundamental differences in domestic violence motivation between men and women.

The categorization of "patriarchal terrorism," which describes a systematic pattern of abuse, coercion, and control, has been distinguished from violent resistance, or the use of violence by a victim in response to patriarchal terrorism (Johnson, 1995, Johnson & Leone, 2005). Not only are these two forms of domestic violence phenomenologically distinct but the former is almost exclusively perpetrated by men whereas the latter is solely comprised of victimized women. The fact that women are more likely to act in a defensive or retaliatory manner further supports the contextual and motivational differences in domestic violence perpetration (Barnett, Miller-Perrin, & Perrin, 2010; Hamberger, 2005; Hamberger, Lohr, Bonge, & Tolin, 1997; Saunders, 1986, 1988; Weston, Marshall, & Coker, 2007). In addition to the crime statistics, national surveys, and research studies which indicate that men are overwhelmingly the perpetrators of violence, data obtained from clinical contexts also fails to support the argument of gender symmetry in domestic violence offending (Barnett et al., 2010). Therefore, although both men and women may engage in violent behavior against an intimate partner, the remainder of this section will focus on characteristics of male offenders due to the qualitative and quantitative differences in the violence perpetrated by men against women.

Demographically, offenders cut across all groups, with no one category more prevalent than another. Some studies have found that young age, unemployment, and lower socioeconomic status serve as significant risk factors whereas other studies have found these factors to be weak predictors of domestic violence perpetration (Capaldi, Knoble, Shortt, & Kim, 2012; Stith, Smith, Penn, Ward, & Tritt, 2004). Some have suggested that certain occupational categories, such as law enforcement officers or those serving in the military, lend themselves to

domestic violence offending (Garvey, 2015; Neidig, Russell, & Seng, 1992; Ryan, 2000; Wetendorf, 2000). It is not clear whether this is because of the attraction of certain personalities to these occupations or whether employment-related circumstances create conditions favorable to the use of violence.

The relationship between domestic violence and the use of alcohol and illicit substances has been consistently demonstrated in the literature (Capaldi et al., 2012; Costa et al., 2015; Fals-Stewart, Golden, & Schumacher, 2003; Stith et al., 2004). Substance use not only facilitates violent behavior but also tends to co-occur with various mental health problems (Walker, 2009). Risk factors related to family of origin that have been identified include poor child–parent relationships, parental substance use and criminality, and childhood exposure to domestic violence (Costa et al., 2015). General criminality, including a history of both violent and nonviolent offenses, is common among male batterers (Klein, 2009). Offenders appear to be characteristically violent and studies have estimated that approximately 80% of batterers use violence both inside and outside of their intimate relationship (Walker, 2009). This propensity toward violence is further demonstrated by the fact that many offenders have a history of violence toward pets, property, and nonfamily members (Stith et al., 2004).

## Offender Classifications

Despite offender heterogeneity studies have made attempts at classification based on different sociocultural, motivational, ideological, and individual factors commonly identified among male batterers (Dutton, 1988; Hamberger & Hastings, 1986; Hamberger, Lohr, Bonge, & Tolin, 1996; Holtzworth-Munroe & Stuart, 1994; Johnson, 1995). For example, Walker (2009) suggested that there may be three general types of offenders: (a) those who are socialized to believe in the use of physical violence, have negative attitudes toward women, and desire power and control within a relationship, (b) those who have a men-

tal health or substance abuse problem making them less likely to control anger and violence, and (c) those who have psychopathic tendencies and engage in antisocial behaviors both inside and outside of the home. These categories are not discrete and characteristics often overlap. However, socialization appears to play a central role: for most batterers' violence is a learned behavior stemming from early exposure to, or engagement in, violence during childhood and adolescence. As violence is consistently observed, modeled, and reinforced, these men learn to view violence as an acceptable form of behavior (Nason-Clark & Fisher-Townsend, 2014). Rigid gender stereotypes, masculine ideologies, and patriarchal attitudes, are also common among male batterers who may use violence as a mechanism to maintain dominance and reinforce power differentials within an intimate relationship. Coercive control is considered a central feature of domestic violence and can include tactics such as isolation, threats, intimidation, emotional abuse, economic exploitation, the misuse of children, and manipulation of male privilege (Pence & Paymar, 1993; Stark, 2007). Relational control is further maintained through the offenders' tendency to minimize, deny, and externalize blame for their abuse (Henning & Holdford, 2006; Holtzworth-Munroe, Meehan, Herron, Rehman, & Stuart, 2000).

The desire for power and control is common among batterers whose violence is more characterological in nature and is often fueled by a sense of entitlement, self-centeredness, possessiveness, and pathological jealousy (Bancroft, Silverman, & Ritchie, 2011). Researchers have identified offender subtypes based on different forms of personality pathology. The category of "dysphoric/borderline" describes batterers who display psychological distress, emotional instability and reactivity, a fear of rejection, pathological jealousy, and insecure attachment patterns (Holtzworth-Munroe & Stuart, 1994). This subtype is characterized by cognitive schemes of fear, jealousy, dependence, and externalized blame and is often comorbid with symptoms of anxiety, depression, and substance abuse (Gilchrest, 2007; Holtzworth-Munroe & Meehan,

2004). Alternatively, the category of "antisocial/narcissistic" describes batterers who are impulsive, have psychopathic tendencies, and engage in violence both inside and outside of the home (Hamberger & Hastings, 1986). Common cognitive schemes include selfishness, narcissism, entitlement, and hostility (Gilchrest, 2007). Although batterers within both categories hold hostile attitudes toward women and view violence as acceptable the first group tends to engage in violence that is more impulsive whereas the second group tends to engage in violence that is more instrumental (Dutton, 2007).

This distinction is similar to the two types of batterers described by Jacobson and Gottman (1998): they called them "pit bulls" and "cobras." The pit bulls were the more common group whose anger kept rising to a point of rage. They tended to be more impulsive, to choose their partners and behaviors with trial and error, and to justify their actions by externalizing blame. The pit bulls feared abandonment, were highly jealous, and emotionally dependent on their significant other. The cobras, on the other hand, did not show their anger openly, were less dependent on their partner for emotional support, and were more likely to plan out their attacks, sometimes waiting patiently until the right time. They relied on the use of control and manipulation to intimidate their partners into submission. Although both pit bulls and cobras engaged in similar amounts of domestic violence the cobras tended to engage in more emotional abuse and more severe physical violence. The authors' also found physiological differences between the pit bulls and cobras; the pit bulls became more emotionally aroused and demonstrated an increase in heart rate when engaged in aggression against their spouses, whereas the heart rate of the cobras actually decreased as aggression led them to become calmer.

These classification typologies can provide significant insight into the different psychopathological presentations of male batterers and have important implications for assessment and treatment. It is important to note that characteristics, such as mental illness, personality pathology, and substance abuse, should be viewed as aggravat-

ing factors in the perpetration of domestic violence rather than causal mechanisms (Bancroft et al., 2011). Violence socialization, patriarchal attitudes, and masculine ideologies all facilitate the use of violence against women and support the notion that domestic violence is a social problem rather than a consequence of individual pathology (Walker, 1991). Yet these factors do not fully account for its occurrence. Although most individuals who are exposed to violence during childhood do not go on to engage in violence during adulthood, such exposure is the highest risk factor according to research by Kalmuss (1984) and others (Costa et al., 2015; Doumas, Margolin, & John, 1994; Roberts, Gilman, Fitzmaurice, Decker, & Koenen, 2010). Similarly, there are individuals who adhere to rigid gender role stereotypes yet do not use violence and coercive control as a means to dominate others. Rather than one factor in isolation, it appears that a combination of these variables serve to exacerbate the preexisting violence prone personality that is typical of men who batter women (Walker, 2009).

## Family Patterns

### The Cycle of Violence

The cycle theory of violence describes the repetitive pattern of abuse that occurs during the course of an intimate relationship (Walker, 1979). Walker studied reports of 400 battered women who explained the patterns of four specific abusive incidents: the first one that the women could remember occurring, the worst or one of the worst, the last one prior to being interviewed, and a typical incident (Walker, 1984; Walker, 2009). These incidents predicted the course of violence over time and escalated through three distinct phases: (a) tension-building, (b) acute battering incident, and (c) loving-contrition. According to this theory, the cycle typically begins slowly with an initial honeymoon or period of loving behavior that occurs during the start of the relationship. The man initially treats the woman very well and spends a

lot of time with her at an intensity that feels good to both of them. After a period of time, the intensity grows stronger with the man making more demands on the woman's time and attention. If she does not accede to his demands, he becomes angry and punishes her in some way. Little incidents occur and the tension continues to build until she recognizes that she is in danger. She may be able to slow down the cycle if she gives in to his demands or to speed it up if she does not. If there is no intervention at this point, the cycle builds to an explosion, which is the second phase. The acute battering incident is the shortest phase of the cycle and where the most injuries occur. Rarely can the woman do more than protect herself as best as possible. If the police are called, it is usually during this second phase of the cycle. The offender may be sorry afterward and thus behave in a more positive and loving way. The third phase of loving-contrition reminds the woman of how he behaved during the courtship period and provides positive reinforcement for staying in the relationship. She believes that his real personality is the loving courtship behavior and the man will no longer engage in abusive behavior. In some cases, this pattern remains stable as long as she gives in to his increasing demands. In other cases, the loving behavior may disappear altogether. As the woman becomes more dependent on the man, she is less likely to challenge his power and control. This dependency is often accompanied by isolation from friends and family, which makes it harder to leave the relationship. Most of the time the abusive behavior continues to escalate until the cycle becomes intolerable and something external happens to change the dynamics.

Walker (1979) originally used the theory of learned helplessness to help explain why the woman was unable to leave the abusive partner. This theory posits that random and uncontrollable violence with some loving behaviors can cause people to lose the ability to make the appropriate connections between cause and outcome, resulting in a loss of motivation to take protective actions. First proposed by Seligman (1975), and studied in the laboratory with animals and then college students, the theory dem-

onstrated how the learned helplessness can be broken and reversed, when the contingency between cause and outcome is restored.

## The Impact of Violence on Children

Exposure to domestic violence can occur in a variety of ways, and for many children this exposure goes hand and hand with abuse and maltreatment (Kelleher et al., 2006). Exposure, abuse, and their co-occurrence can lead to a variety of adverse physical, psychological, emotional, and developmental effects in children. In addition to the negative impact of direct exposure to domestic abuse, children who grow up in domestically violent households become entwined in family patterns of fear and dysfunction. The parenting style of many batterers is characterized by authoritarianism, entitlement, manipulation, and intimidation (Bancroft et al., 2011). If the child conforms, then the batterer rewards them; if not, they may be threatened or harshly punished. The batterer often expects the mother to assume primary parenting responsibilities, yet simultaneously undermines her parental authority and belittles her in front of the children. Fathers may manipulate their children into believing that their mother is responsible for the abuse that reinforces negative attitudes about women as weak and blameworthy. Over time, children's exposure to parental abuse can alter their belief systems. They may come to view violence as acceptable and adopt gendered stereotypes based on the power differentials between their mother and father. Or, they may become overly fearful and support their mother, rejecting contact with their father. Mothers are often wrongfully accused of causing this fearful and rejecting behavior labeling it 'parental alienation syndrome' when they attempt to separate or divorce the abusive father (Walker, Brantley, & Rigsbee, 2004). When children are involved in abusive family dynamics, they are unable to support both parents as might be typical in nonabusive families. Children often feel ambivalence toward their father; some may desire a positive relationship and seek his approval whereas oth-

ers distance themselves out of fear and anger (Bancroft et al., 2011). Batterers' often attempt to interfere with the mother–child relationships, and divided loyalties are common with some children choosing to support the mother and others choosing to support the father. In families where this type of behavior exists, the children are more vulnerable to be physically and sexually abused by the father or by others who are in a position to exploit them, such as religious figures, coaches, and sex traffickers.

Family dysfunction often continues, or even intensifies, during periods of separation, which is one of the most dangerous times in an abusive relationship (Tjaden & Thoennes, 2000; Walker, 2009). During this period, women and their children are at an increased risk of being seriously injured or even killed by the abuser (Ellis et al., 2015). Desperate to maintain power and control fathers may engage in more extreme coercive tactics and use the children as a way to continue stalking, harassing, and surveilling the mother. Threats against the children may be used as a means to intimidate the mother and undermine her sense of security. Batterers often manipulate the legal system through visitation and child custody agreements. Courts often require shared parental responsibility and children who are forced to spend time alone with their father may be left feeling afraid and unsafe. The fact that a woman is better able to protect her children when living with her abusive spouse creates a substantial barrier to seeking help and ending the relationship.

## Assessment and Diagnosis

Domestic violence assessment should be a routine component of clinical care regardless of whether or not there are initial indications of abuse (McCloskey & Grigsby, 2005). Routine assessment not only allows for the accurate identification of those who have been affected by domestic violence but also informs the course of evaluation, improves diagnostic accuracy, and allows for individualized treatment recommendations (Renzetti, Edleson, & Bergen, 2011). A

comprehensive assessment protocol would include a clinical interview with detailed abuse histories, a mental status exam, administration of psychological testing measures, and review of collateral documentation. Each assessment should begin with informed consent, the limits of confidentiality, and appropriate authorizations for release of information. In addition to generalized background information obtained during a clinical interview extensive information regarding abuse during childhood and adulthood should be collected with a focus on abuse history and the extent, severity, frequency, duration, and impact of physical, sexual, and psychological violence (Sonkin & Liebert, 2003). Other areas of clinical attention include social functioning and interpersonal patterns in familial and romantic relationships (Walker, 1994). Psychiatric and medical records, legal documentation including arrest records, and other sources of collateral information all provide additional information that should be considered in the overall clinical picture. Psychological testing measures can be used to clarify presenting symptoms and confirm diagnostic impressions. A test battery may include general measures of personality, psychopathology, intellectual ability, and cognitive functioning as well as measures specifically related to trauma and abuse exposure, personal and social functioning, and environmental risks and resources. The assessment and management of risk is integral in domestic violence evaluations and has important implications for safety planning, crisis or legal intervention, victim assistance services, and psychotherapeutic treatment. The exact approach may vary depending on factors such as the context of the referral (e.g., voluntary or court-mandated), the status of the referred (e.g., victim, perpetrator, or child), and the overall purpose of the evaluation.

## Offender Risk Assessment

The two most common approaches to risk assessment include structured clinical interviews and actuarial assessments, although an unstructured clinical interview is an alternative approach. In an unstructured clinical interview impressions are formed based on the integration of test data, behavioral observations, the clinical interview, and collateral background information (Otto, 2000). Determination of risk based on unstructured clinical judgment is considered the least common in clinical practice and less accurate than structured clinical judgment as critical information may not be observed or given adequate attention (Shapiro & Noe, 2015). A structured clinical interview is a guided approach which facilitates the combination of clinical judgment with the assessment of empirically validated static (e.g., those that are unchangeable) and dynamic (e.g., those that tend to fluctuate) risk factors. An example of a structured clinical interview created to assess for domestic violence risk is the Spousal Assault Risk Assessment Guide (SARA; Kropp, Hart, Webster, & Eaves, 1999). The SARA includes 20 items which measure risk factors within the following four domains: (a) general criminal history: prior assault of family members, prior assault of strangers or acquaintances, and prior violations of conditional release; (b) psychosocial adjustment: recent relationship problems, employment problems, substance abuse, suicidal or homicidal thoughts, psychotic or manic symptoms, personality disorder, and victim of or witness to family violence in youth; (c) spousal assault history: prior physical assault, prior sexual assault or sexual jealousy, prior use of threats or weapons, previous violations of no contact order, minimization or denial of abuse, and attitudes that condone spousal abuse; and (d) most recent offense: severe physical or sexual assault, threats of death or use of weapons, and violation of no contact order. Individual item responses aid the clinician in making an overall summary judgment of risk as low, moderate, or high. The Brief Spousal Assault Form for the Evaluation of Risk (B-SAFER; Kropp, Hart, & Belfrage, 2005) is a condensed screening version of the SARA which contains a checklist of ten risk factors, five related to domestic violence history and five related to psychological and social maladjustment.

The actuarial approach to risk assessment replaces clinical judgment with the use of risk

estimation equations and quantified static predictor variables. Although this approach is considered more objective, it does not allow for examiner discretion and fails to take into account clinically relevant dynamic variables. The Domestic Violence Risk Appraisal Guide (DVRAG; Hilton, Harris, Rice, Houghton, & Eke, 2008) is an example of an actuarial assessment for domestic violence risk and recidivism. The DVRAG includes 13 items from the Ontario Domestic Assault Risk Assessment (ODARA; Hilton et al., 2004) in addition to a psychopathy score from the Psychopathy Checklist-Revised (Hare, 1991). The PCL-R is considered a robust predictor of violence recidivism and measures a constellation of traits within the interpersonal, affective, lifestyle, and antisocial behavioral domains. The remaining items measured on the DVRAG include: number of prior domestic and nondomestic incidents, prior custodial sentence, failure on conditional release, threats to harm or kill or confinement of the partner during the most recent incident, concern of the victim, number of children, victim's biological children with a previous partner, violence against others, substance abuse score, assault on victim when pregnant, and number of barriers to victim support. Scores on each item are tabulated and then translated into probability estimates of domestic violence recidivism.

## Victim Risk Assessment

Assessment of domestic violence victims has a similar focus on offender-related risk factors, yet utilizes different standardized testing measures as well as a different approach to clinical questioning.[4] Studies have found that not only is an abused woman's perception of danger an accurate indication of abuse severity and escalation, but also is predictive of short-term and long-term abuse reoccurrence (Goodman, Dutton, &

Bennett, 2000; Walker, 2009; Weisz, Tolman, & Saunders, 2000). These findings indicate that women's perceptions of current and future danger should be considered an important component during risk assessment. Victims can be asked to provide descriptions of battering incidents that can be plotted on a graph to illustrate the cycle of violence and escalation of danger (Walker, 2009). The visual representation of lethality potential is beneficial for both the victim and evaluator and allows for a more accurate perception of current dangerousness. Walker's Battered Woman Syndrome Questionnaire (BWSQ), which contains a detailed assessment of battering incidents and psychological measures of trauma, is currently being validated so it can be used as a structured assessment inventory. The literature has identified a number of additional risk factors related to lethality potential, which should be assessed when interviewing a victim. These factors include an increase in the frequency and severity of violence escalation, forced or threatened sexual acts, frequency of alcohol and substance use, threats of harm to the victim or children, need for control around children, stalking behaviors, psychiatric impairment, suicide attempts, easily accessible weapons, history of criminality, attitude toward violence, the initiation of a new relationship, and current life stressors (Sonkin, Martin, & Walker, 1985). Current relational status is another important factor to consider as the risk for lethality increases during periods of separation (Campbell, 2007).

The Danger Assessment (DA; Campbell, 1995) is a 20 item screening instrument that can be administered to victims to assess for the risk of homicide in an abusive relationship. The first part of this assessment involves an examination of the severity and frequency of violence within the previous 12 months. The second part includes 20 items related to the extent of physical and sexual abuse, manifestations of psychological abuse and coercive control throughout the relationship, and the offender's use of substances, alcohol, and weapons. Each response is scored and the items are summed to provide risk estimations which are classified into the categories of variable danger, increased danger, severe danger, or extreme dan-

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[4]See the Family Violence Prevention Fund (2004) national consensus guidelines for a detailed description of domestic violence identification, assessment, and response in various health settings (2004). See also McCloskey and Grigsby (2005) for domestic violence screening and assessment processes for mental health clinicians.

ger. In addition to lethality determinations, the DA can also be used to raise victim awareness to the extent and severity of abuse and aid in safety planning. Safety planning should be a top priority during victim assessment and revisited throughout the course of treatment. The safety plan is a collaboratively created written document that contains a list of available resources and concrete action steps that can be taken to minimize the risk of harm from domestic violence. Lastly, victim assessment should also emphasize resiliency and include an identification of protective factors and sources of social support.

## Offender Clinical Presentations

Diagnostically, male batterers represent a heterogeneous group with no one specific diagnosis more common than another. This is evident in the conflicting results found in studies regarding the rates of psychopathology among offenders. Some studies have found that the majority of batterers meet the diagnostic criteria for one or more disorders whereas others have found that most batterers experience subclinical symptoms and fail to meet criteria for any one specific diagnosis (Chambers & Wilson, 2007; Dutton, 2007; Else, Wonderlich, Beatty, Christie, & Staton, 1993; Hamberger et al., 1996; Waltz, Babcock, Jacobson, & Gottman, 2000). Many batterers report symptoms of anxiety, depression, and mood instability; yet most do not meet the criteria for a mood disorder diagnosis (Gondolf, 2002). A small percentage of batterers have neurological symptoms that may cause or facilitate their violent behavior.

The etiology of such symptoms is important as it is often difficult to disentangle whether they are representative of true clinical syndromes or merely reactions to extraneous circumstances such as legal proceedings. Although many batterers endorse a history of childhood maltreatment or exposure to intraparental violence the majority do not present with posttraumatic symptomology and do not meet criteria for a trauma-related diagnosis (Gondolf, 2002). Male batterers may demonstrate impulsivity and aggressiveness; yet

diagnoses related to impulse-control are often inappropriate due to the controlled, premeditated, secretive, and coercive nature of spousal abuse. Substance-related diagnoses should be considered due to the high rates of alcohol and substance abuse among male batterers (Fals-Stewart et al., 2003; Gondolf, 2002; Walker, 2009) but it is important not to mistake substance abuse as the cause of the violence itself as it is often a reaction or simply coexisting factor. Nonetheless, the presence of substance abuse may increase the intensity of violent behavior or lead to more serious injuries.

Personality pathology is common and often occurs along a continuum with some presentations more severe than others (White & Gondolf, 2000). Many offenders exhibit symptoms of impulsivity, reactivity, irritability, aggressiveness, emotion dysregulation, paranoia, avoidant tendencies, grandiosity, entitlement, and relational instability (Hamberger & Hastings, 1986; Holtzworth-Munroe & Stuart, 1994). These clinical presentations may correspond with diagnoses of Antisocial Personality Disorder, Borderline Personality Disorder, or Narcissistic Personality Disorder (American Psychiatric Association, 2013). Offender variability has led some to recommend that a consideration of pathological personality dimensions may be more clinically useful than a strict focus on diagnosable disorders (Holtzworth-Munroe & Meehan, 2004). Even if diagnostic criteria are met it is important to emphasize that the majority of individuals with a psychiatric diagnosis are not abusive and that a diagnosis in and of itself does not explain the occurrence of domestic violence. Further, the use of violence is a behavioral choice and the presence of a diagnosis does not excuse or justify the decision to perpetrate intimate partner abuse.

## Victim Clinical Presentations

Domestic violence victims are clinically diverse and can experience a variety of symptomology across several domains; however, presenting symptoms should be viewed within the context of domestic abuse. Diagnostic impressions must

take into account the complexity of presenting symptomology as well as the adaptive function of coping behaviors that manifest in response to trauma (Walker, 1991). It has been estimated that half of all women who present to a mental health setting are currently being abused or have a history of domestic violence (Warshaw, Brashler, & Gil, 2009). Some of these women may have pre-existing psychiatric conditions whereas others may experience adverse mental health symptoms as a direct consequence of victimization. Diagnostic themes can provide a clinical understanding of cognitive, emotional, and behavioral symptoms and overall prognosis (Walker, 1994). For example, a diagnosis of Posttraumatic Stress Disorder (PTSD) explains the etiology of symptoms in relation to trauma exposure and the symptom domains in which functioning may be impaired (American Psychiatric Association, 2013). PTSD is one of the most common diagnoses assigned to abused women in mental health settings and it has been estimated that between 31% and 81% of domestic violence victims experience posttraumatic symptomology, which is significantly higher than in the general population (Jones, Hughes, & Unterstaller, 2001). The symptom domains that characterize PTSD include: (a) intrusions: recurrent and involuntary memories, distressing dreams, dissociative reactions, and psychological distress or marked physiological reactions to internal or external cues, (b) avoidance: attempts to avoid distressing thoughts, memories, feelings, or external reminders, (c) negative alterations in cognitions and mood: difficulty remembering aspects of trauma, exaggerated negative beliefs, distorted cognitions, persistent negative emotional state, diminished interest in activities, detachment, and inability to experience positive emotions, and (d) alterations in arousal and reactivity: irritability and anger outbursts, self-destructive behaviors, hypervigilance, exaggerated startle response, problems with concentration, and sleep disturbance. Dissociative symptoms, such as depersonalization or derealization, may also be present and can be coded as a PTSD specifier or assigned as a clinical diagnosis if warranted.

The chronic and repetitive nature of domestic violence has been described as a form of complex trauma and many victims experience symptoms above and beyond those captured by a diagnosis of PTSD (Herman, 1992). Battered Woman Syndrome (BWS; Walker, 1984, 2000, 2009) is considered a subcategory of PTSD and describes a constellation of symptoms that result from domestic abuse: (a) intrusive recollection of the traumatic event(s), (b) hyperarousal and anxiety, (c) emotional numbing and avoidance behavior, (d) cognitive changes, (e) disrupted interpersonal relationships, (f) body image issues and somatic complaints, and (g) issues with sexual intimacy (Walker, 2009). The first four categories encompass symptoms seen in PTSD whereas the last three specifically relate to symptoms women experience as a result of physical, sexual, and psychological abuse. Women may also present with co-occurring symptoms of depression, anxiety, and somatization, or tension-reduction behaviors such as self-harm, suicidality, or substance abuse (Campbell, 2002; Dillon, Hussain, Loxton, & Rahman, 2013; Warshaw et al., 2009). Although victims present with an array of diagnostic possibilities a diagnosis of PTSD should be fully explored prior to other differential diagnoses. Even though comorbid diagnoses may be warranted a contextual view is necessary to avoid misdiagnosis or the over-diagnosis of psychopathology. Without trauma-specific treatment, many symptoms demonstrated by battered women may not heal completely. Further, diagnostic formulations should be revisited and updated throughout the course of treatment to ensure that initial clinical impressions are valid, comprehensive, and accurate representations of the client.

## Course, Prognosis, and Recidivism

### Offender Prognosis and Recidivism

The most predictable course of domestic violence is the reoccurrence and escalation of abuse over time. One of the most salient findings in the literature is that an extensive history of abuse per-

petration and previous criminal convictions is associated with poorer prognosis and an increased likelihood of recidivism (Klein, Centerbar, Keller, & Klein, 2013). Chronic patterns of abuse perpetration are evidenced by the fact that offenders not only tend to revictimize the same intimate partner but often go on to victimize subsequent intimate partners once the initial relationship has been terminated (Klein, 2009). Many offenders cycle in and out of the criminal justice system and the vast majority arrested for domestic violence have a history of multiple criminal charges (Buzawa, Hotaling, & Klein, 1998). A typical course of response to domestic violence includes the arrest of the perpetrator followed by criminal justice sanctions and/or court-ordered treatment. Measures of offender recidivism are often based on rearrest records or rates of program completion, although it has been argued that these may not necessarily be reflective of a reduction in violent behavior. Nevertheless, studies have found that more than half of all domestic violence offenders who are arrested recidivate within a relatively short time period (Gondolf, 2002; Richards, Jennings, Tomsich, & Gover, 2014). Offender patterns over a 10-year period show even higher rates of reoffending and rearrest which suggests that short-term cessation of abuse may not be indicative of long-term behavioral changes (Klein & Tobin, 2008).

Results have been mixed regarding the efficacy of different forms of criminal justice and legal responses. Some have found that a conviction can serve as a deterrent and result in lower recidivism whereas other studies have found no difference in reabuse rates as a result of case outcome (Bell, Cattaneo, Goodman, & Dutton, 2013; Ventura & Davis, 2005). Criminal sentencing may play an important role in recidivism as demonstrated by the fact that offenders who receive more severe sentences are less likely to be rearrested for domestic violence (Klein et al., 2013). Court-ordered treatment may be beneficial for some, although a meta-analysis of the treatment literature found that these programs had little additive advantage above and beyond the effect of arrest (Babcock, Green, & Robie,

2004). Overall, an arrest may serve as the first step in disrupting the course of domestic violence but this step must be followed by appropriate criminal justice sanctions in order to act as a deterrent. Further, even if criminal justice sanctions act as a deterrent intensive psychosocial intervention is often necessary to address the behavioral patterns associated with abuse.

## Victim Course and Prognosis

Domestic violence victimization follows a similar predictable course of escalation and reoccurrence. The rates of re-abuse reported by victims tends to be substantially higher than the rates of recidivism obtained from rearrest studies (Buzawa, Hotaling, Klein, & Byrne, 1999). The severity, chronicity, and continuation of abuse affects the overall prognosis. In some cases, the cycle of violence may be disrupted by external circumstances such as the arrest and removal of the abuser; in other cases the cycle continues and has a cumulative adverse effect on the victim's physical, emotional, and psychological functioning and increases the risk of serious injury, disability, or death. Most abused women receive multiple injuries from domestic violence—strangulation and blunt force trauma to the face are the two most common—which results in significant health care costs and an increased use of emergency medical services (Campbell, 2002; Sheridan & Nash, 2007). In addition to the psychological effects discussed previously, victims commonly report poor overall physical health and experience symptoms, such as gastrointestinal distress, chronic pain, headaches, neurological symptoms, gynecological problems, and hypertension. Overall, the course of domestic violence results in a reduced quality of life and impairs all areas of functioning; yet this prognosis is largely dependent on whether the victim is able to escape the abusive relationship and receive the health services necessary for recovery.

## Treatment

The most effective approach to domestic violence treatment is a coordinated community response that includes criminal justice system intervention, the provision of social services, and psychotherapeutic treatment (Day, Chung, O'Leary, & Carson, 2009; Maiuro & Eberle, 2008; Pence & Paymar, 1993). For offenders, the most common approach to treatment is arrest followed by referral to a batterer intervention program. Batterer intervention programs generally follow a feminist educational model, cognitive-behavioral model, or a combination of the two. Most programs are offered in group format, led by trained facilitators, and are composed of approximately 15 batterers who attend a minimum of 1–2 h weekly sessions over the course of 26 weeks (Buttell & Carney, 2007; Maiuro & Eberle, 2008). The overarching goal of these programs is to hold batterers accountable for their behavior, change their belief systems, and eliminate their use of violence. For victims, treatment that is grounded in feminist, trauma, and cognitive-behavioral theories appears to have the best outcomes (Walker, 2009). Treatment can be offered in an individual or group format and on a short-term or long-term basis, depending on the needs of the victim. The primary goals of treatment are to ensure safety, reestablish personal power, promote psychological healing, and empower women to transition from victim to survivor. The core principles of treatment for children who have been exposed to domestic violence are similar to those for victims and emphasize ensuring safety, helping children process the emotional consequences of domestic violence exposure, and allowing them to gain power over their lives (National Child Traumatic Stress Network, n.d.). Treatment formats for children can include group therapy, individual therapy, and psychotherapeutic intervention with both the child and non-offending parent. Groups that teach children how to manage their anger and control impulses can be effective for children who show aggressive tendencies. A more inten-

sive and individualized treatment approach is often necessary for children suffering from physical or mental health difficulties. Psychotherapy with the child and non-offending parent is another important component of treatment and necessary to help support and strengthen this relationship.

## Batterer Intervention Programs

The feminist educational framework for batterer intervention programs was developed in Duluth Minnesota in the 1980s and is commonly referred to as the Duluth model (Pence & Paymar, 1993). This model is based on the theoretical view that men use violence to maintain power and control within an intimate relationship and as a means to dominate their partner physically, sexually, emotionally, and psychologically. The sociological impact of gender inequality, sex role socialization, and patriarchal attitudes are all embedded within the program curriculum. This program is largely didactic in nature and the overarching goal is to teach men to take personal responsibility for their actions and to form relationships that are egalitarian and nonviolent. The main themes of this program include nonviolence and nonthreatening behavior, respect, trust and support, honesty and accountability, negotiation and fairness, and partnership. Sessions consist of vignettes related to the session theme, didactic lectures, self-evaluation and action plan assignments, role-playing, and group exercises. While the program is useful for those batterers who abuse their power and attempt to control their victims, it may not be sufficient for all.

The cognitive-behavioral approach is a therapeutic model that focuses on reframing abusive belief systems and teaching offenders to develop alternative behavioral responses. The premise of this model is that behavioral change can be enacted through the modification of the maladaptive thoughts, attitudes, and assumptions held by domestic violence offenders (Gondolf, 2012). The cognitive component of this program targets both cognitive themes (e.g., justification and

acceptance of violence) and cognitive processes (e.g., hostile and biased attributions) that facilitate the use of violence (Eckhardt & Schram, 2009). The behavioral component includes the implementation of social skills training and anger management strategies and utilizes emotion regulation techniques, relaxation training, problem-solving, healthy communication techniques, conflict resolution, and assertiveness training. Sessions consist of didactic education, skills training, role-playing, group exercises, and homework assignments.

A combined approach to batterer intervention integrates feminist principles with cognitive-behavioral techniques and adheres to both socio-cultural and individual explanations of domestic violence (Saunders, 1996). Interpersonal violence is viewed from a social learning perspective and emphasis is placed on the ways in which this learned behavior is socially reinforced and used to achieve a sense of power and control (Sonkin et al., 1985). Patriarchal norms and misogynistic attitudes are considered perpetuating factors in men's justification and acceptance of violence against women; as such, gender role resocialization is an important component of treatment. The combined approach not only targets general cognitive themes related to violence but also the cognitive scripts of power, control, entitlement, and domination that comprise the belief system of abusive men. Most states have adopted specific standards for batterer intervention programs and place primary emphasis on the power and control conceptualization of domestic violence that is integral to the feminist educational model and a secondary emphasis on social psychological and cognitive-behavioral approaches (Maiuro & Eberle, 2008). The literature on program efficacy has been largely mixed; several studies have found general reductions in violence recidivism, whereas others have found minimal overall treatment effects (Babcock et al., 2004; Feder, Austin, & Wilson, 2008; Saunders, 2008).

While some have argued that "one size fits most" in regards to treatment (Gondolf, 2002, p. 183), others have argued that the predominant models fail to address the diversity of batterer

psychopathology (Dutton & Corvo, 2006). Alternative group treatment programs have been developed that include additional psychotherapeutic modalities, yet still retain the foundational elements of the feminist and cognitive-behavioral approaches. One example is AMEND (Abusive Men Exploring New Directions; Ewing, Lindsey, & Pomerantz, 1984) which is a comprehensive multimodal approach that is of longer treatment duration (e.g., minimum of 9 months) and addresses psychological problems through formats such as group processing and individual counselling. It has also been suggested that treatment interventions may be more effective if tailored to batterer personality subtypes (Holtzworth-Munroe & Meehan, 2004; Saunders, 2001; Waltz et al., 2000). For example, one study found that men with antisocial personality characteristics showed greater improvements in feminist-cognitive-behavioral group treatment whereas men with dependent personality characteristics benefitted more from process-oriented psychodynamic groups (Saunders, 1996). Although a group format is the primary treatment modality batterers' with mental illness, pathological personality organization, substance abuse problems, or personal histories of trauma and abuse often require more intensive and individualized treatment above and beyond what is offered in batterer intervention programs (Walker, 2009). An example approach, which is grounded in attachment theory, focuses on interpersonal dynamics, personality patterns, and trauma symptomology within the context of early childhood attachment patterns (Sonkin & Dutton, 2003). Alternatively, it has been argued that a subset of batterers with the most extreme and deviant personality characteristics (e.g., psychopathic) may be unresponsive to treatment and immune to psychotherapeutic gain. In these cases, criminal justice intervention may be the only warranted response. Overall, the most effective approach to offender treatment is a coordinated community response that involves the criminal justice system (e.g., law enforcement, prosecution, probation) in addition to batterer intervention programs and individualized psy-

chotherapeutic interventions (Cattaneo & Goodman, 2005; Tolman & Edleson, 2011).

Unfortunately, there are no evidence-based programs that address juvenile batterers to either treat those who have already begun to use violence in their relationships or to prevent those with deviant and hostile attitudes toward women from using domestic violence in their families or with intimate partners. This is a difficult group to identify and treat, as many who are just beginning dating relationships can be prevented from setting into bad habits and criminal behavior.

## Survivor Therapy for Battered Women

Survivor therapy is a treatment approach for survivors of domestic violence that is trauma-informed, strengths-based, and guided by feminist models of empowerment (Walker, 2009). In addition to ensuring safety and stabilization issues that are addressed include the effects of violence on mental health functioning, clinical symptomology, and the sociopolitical, cultural, psychological, and situational context of gender-based violence. Key principles include viewing women's cognitive, affective, and behavioral responses from a strengths-based perspective, expanding alternatives, restoring clarity in judgment, reestablishing personal power, and helping women to heal from their traumatic experiences. In order to achieve the goals of Survivor Therapy, women must be provided with a therapeutic environment that is safe, secure, validating, and egalitarian.

The Survivor Therapy Empowerment Program (STEP) is an evidence-based manualized treatment program that has proven to be effective for women in local detention centers, battered women's shelters, and the surrounding community (Walker, 2009). It can be offered in individual or group format and is divided into the following 12 steps:

1. Labeling, Validation of Trauma or Abuse, and Safety Planning
2. Relaxation Training and Reducing Stress

3. Cognitive Restructuring: Thinking, Feeling, and Behavior
4. Boundaries, Assertiveness, and Communication
5. The Cycle of Violence and Battered Woman's Syndrome
6. Trauma Triggers and PTSD
7. Numbing Behaviors and Substance Abuse
8. Empathy and Emotional Regulation
9. Impact of Domestic Violence and Trauma on Children
10. Legal Issues
11. Grieving and Letting Go of Old Relationships
12. Wellness, Resilience, and Termination

Each session consists of three components: psychoeducation, discussion, and skill-building. During the psychoeducation component, trauma-related topics are introduced with a focus on different aspects of domestic violence and the influence of this violence on all areas of functioning. The discussion portion allows participants to talk about and process their various experiences in the context of a supportive environment. During the skill-building component various skills are introduced to provide women with new coping strategies that can enhance their overall functioning and promote recovery. Skills and exercises are demonstrated during the group and practiced by the women until the next session. Throughout the sessions validation is important and women's previous coping strategies are framed within the context of survival from abuse. This program provides women the opportunity to gain cognitive clarity and emotional stability, heal from the traumas they have experienced, and become empowered in their transition from victim to survivor.

STEP has been validated on both women and men and shown to reduce the high anxiety levels they demonstrate. The more units they complete, the less anxiety they have. Other clinical areas of PTSD have not been assessed at this time.

## Domestic Violence Prevention

The eradication of violence against women is considered a global human rights priority and a concerted effort is necessary to prevent domestic violence rather than intervene following its occurrence (United Nations, 2015). This requires increased public recognition, collaborative community involvement, coordinated national policies, institutional accountability, and the provision of adequate prevention resources. Universal prevention programs must begin early in life, target the root causes of gender-based violence, and address the fundamental attitudes, behaviors, and conditions that support violence against women around the world (Tolman & Edleson, 2011). An ecological approach to prevention requires the identification of risk and protective factors at the societal, community, relational, and individual levels (United Nations, 2015). Gender inequality is embedded in social norms, practices, and structures; therefore, prevention efforts must target discriminatory gender-based practices and the unequal distributions of power that perpetuate men's use of violence against women. Personal, societal, and legal accountability are essential to demonstrate that violence will not be tolerated and sanctions will be enforced. Overall, multifaceted prevention efforts are necessary to eradicate gender-based violence and empower women to reclaim their fundamental human rights to physical integrity, agency, autonomy, and equality (United Nations, 2015).

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# Elder Abuse and Mistreatment

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In 2011, the Baby Boom generation began to reach the age of 65 ushering in the beginning of a *population aging boom* remarkable for both its prevalence and proportion (West, Cole, Goodkind, & He, 2014). This shift in demographics predicts that 20% of US citizens will be over age 65 and 4.5% over the age of 85 by the year 2050 (Ortman, Velkoff, & Hogan, 2014). This aging of the US population has many wide-ranging implications, including changes in policy, community support, and social and family dynamics. As societal needs shift with the growing aging population, economic and perceptual changes are imperative in order to keep individuals safe and quality of life high. One threat to aging-well deserving of special focus is elder mistreatment.

Elder mistreatment, also called elder abuse or elder maltreatment, has been defined by the National Research Council as "(a) intentional actions that cause harm (whether or not harm was intended) or create a serious risk of harm to an older adult by a caregiver or other person who stands in a trust relationship to the elder, or (b) failure by a caregiver to satisfy the elder's basic needs or to protect the elder from harm" (Bonnie & Wallace, 2003, p. 40). Within this definition, an "older adult" refers to an adult aged 65 years or older and a "trust relationship" refers to individuals in the life of the older adult whom the older adult reasonably believes that they could trust. For example, family members, professionals, and acquaintances involved in a social or working relationship with the older adult would meet this definition. The definition also includes the failure of a caregiver to meet older adults' basic needs or protect them from harm and can encompasses neglect, self-neglect and abandonment. Given the changing demographics of the older adult population in the USA, and the resulting increasing pressure placed on our healthcare and social support systems, as well as family caregivers, there is a need to understand the current state of the science of elder abuse. As such, the objective of this chapter is to provide a

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review of research on elder abuse, focusing on the historical background, epidemiology, offender characteristics, family patterns, assessment, course prognosis, recidivism, and treatment approaches.

## Historical Background

Elder mistreatment has only recently been recognized as a distinct social problem deserving of separate recognition and study. In fact, little attention was given to the area of elder abuse prior to the late 1970s and early 1980s when the US Select Committee on Aging hearings brought national attention for the first time to the systematic nature of this social ill (U.S. House of Representatives, 1977, 1980, 1981a). Historically, family problems, mistreatment, and protection for vulnerable individuals, were seen as private issues and assistance was provided mainly by religious and charitable organizations. States began providing custodial protection for vulnerable individuals beginning in the eighteenth and nineteenth centuries, however, the legal basis for intervention did not appear until the late nineteenth century when a combination of urbanization, industrialization, and immigration brought family problems into public view. Following this exposure, "protective services units" were established by states in the 1940s and 1950s to provide social services and legal assistance (e.g., guardianships to the increasing number of vulnerable individuals unable to protect themselves or manage independently). Building on these state-established units, Congress passed the Public Welfare Amendments to the Social Security Act in 1962, which allocated funding for these units and for demonstration projects to test their effectiveness. Despite reports which called into question the effectiveness and cost of these units, Congress amended the Social Security Act in 1974 mandating protective service units for adults over the age of 18 who "as a result of physical or mental limitations, are unable to act in their own behalf; are seriously limited in the management of their affairs; are neglected or exploited; or are living in unsafe or hazardous conditions" and established funding for these adult protective service units through social services block grants. Although elder abuse was included under these broad reaching protections, it was not until the late 1970s and early 1980s that congressional hearings focused the spotlight specifically on elder abuse.

The House Select Committee on Aging, lead by Claude Pepper, worked to raise public awareness and provide comprehensive analysis of elder abuse and concluded "that the incidence of physical, financial, psychological, and even sexual abuse of the elderly exists in America in dimension that few have realized; that the incidence of such family violence and abuse is escalating rapidly; and that apparently a parallel can be drawn from child abuse where a measureable increase in abuse can be found in hard economic times." (U.S. House of Representatives, 1981b, p. XII). Answering the call to policy options outlined by this report, the national elder abuse resource center, currently the National Center on Elder Abuse (NCEA), was established in 1988 to help prevent elder mistreatment and the Omnibus Budget Reconciliation of 1987 included provisions on elder abuse. Following these policy changes and increases in awareness, the concept of elder mistreatment and methods to address it have expanded to include academic texts, research reports, national and international conferences, training opportunities, recommended guidelines, policy changes, and calls to action. Notable milestones include the 1992 Vulnerable Elder Rights Protection Title amendment to the Older Americans Act that strengthened existing programs; the 1998 National Elder Abuse Incidence Study (NEAIS) that documented and explored incidence rates and characteristics of those involved; the 2010 Elder Justice act which is the first comprehensive national legislation on elder abuse; and the 2015 White House Conference on Aging (WHCoA) which selected elder justice as a priority goal calling for a reduction of "elder financial exploitation, abuse and neglect" through elder mistreatment education and policy change (Kaplan & Pillemer, 2015).

## Epidemiology

Despite this progress and increased awareness, elder mistreatment continues to affect older Americans. In fact, the most recent prevalence studies indicate that roughly 11% of cognitively intact adults aged 60 years or older experienced mistreatment over the past year (Acierno et al., 2010). To best comprehend this phenomenon affecting one in ten older Americans, it is important to understand the forms that elder mistreatment can take. Elder mistreatment encompasses physical, sexual, and emotional or psychological abuse; neglect (by a caregiver or oneself); abandonment, and financial or material exploitation (Dong, 2015). In order to aid in reporting, the National Center on Elder Abuse provides standardized definitions for these subtypes, which are found in Table 1 (NCEA, 2015). One-year prevalence rates by type vary from 5.2%, 5.1%, and 4.6% for financial abuse, potential neglect, and psychological abuse to 1.6% and 0.6% for physical and sexual abuse respectively (Acierno et al., 2010).

Unfortunately, these prevalence rates may not tell the whole story. Clinical observations indicate elder mistreatment incidents may not be singular events and may only be noticed at times of severe injury or neglect (Wallace & Bonnie, 2003). In fact, a significant absence in reporting has been well noted, with research indicating that the actual rate of abuse is somewhere between 5 and 24 times higher than what is reported to law enforcement or social service agencies (NCEA, 1998; Lachs & Berman, 2011). It also appears that some types of elder mistreatment may be at greater risk for underreporting. For example, of the 1.6% of older adults discussed above who had experienced physical abuse, 31% had reported these events to the police, yet only 7.9% of the emotional abuse incidents and 16% of the sexual mistreatments were reported to police (Acierno et al., 2010). Research focused on better understanding the discrepancy between prevalence and reporting rates has found that lack of adequate education for assessing and addressing elder mistreatment may be a substantial influencing factor (Friedman, Avila, Shah, Tanouye, & Joseph,

**Table 1** Standardized definitions for subtypes of abuse

| Type of abuse | Definition |
| --- | --- |
| Physical | Physical force that might result in bodily injury, physical pain, or impairment, including but not limited to physical punishments of any kind, striking, beating, slapping, kicking, pushing, inappropriate restraints use and force-feeding |
| Sexual | Nonconsensual sexual contact of any kind including sexual contact with and individual unable of providing consent |
| Emotional or psychological | Infliction of pain, distress, or anguish through verbal or nonverbal acts (e.g., insults, threats, intimidation, humiliation, harassment, and isolation) |
| Neglect | Refusal or failure to fulfill obligations or duties, such as, life necessities like food, water, clothing, shelter, medicine, comfort, safety to an older adult in ones care |
| Abandonment | Desertion by an individual responsible for providing care or who holds physical custody |
| Financial or material exploitation | Illegal or improper use of funds, property or asset (e.g., check cashing checks without permission, signature forgery, use of cohesion or deception to obtain a signature, improper use of conservatorship, guardianship, or power of attorney) |
| Self-neglect | Behavior of an older individual that threatens his or her own health and safety, such as, refusal or failure to provide oneself with adequate food, water, clothing, shelter, hygiene, medication, or safety |

Source: National Center on Elder Abuse (2015a, 2015b)

2014; Schmeidel, Daly, Rosenbaum, Schmuch, & Jogerst, 2012). However, even when mistreatment is suspected, research indicates that it is underreported, with health providers citing feared loss of rapport, doubt about abuse's occurrence, concerns about decreased quality of life, and fear of liability/retaliation as concerns that contribute to underreporting (McCool, Jogerst, Daly, & Xu,

2009; Rodríguez, Wallace, Woolf, & Mangione, 2006).

## Risk Factors

Despite difficulties in reporting abuse, a number of potential risk factors have been identified through research. Older adults with cognitive impairment consistently appear to be at increased risk for abuse and self-neglect with the most recent prevalence rates at a stark 47.3% (Dong, 2015; Wiglesworth et al., 2010). Other groups at increased risk include individuals with physical functional impairments, shared living situations, previous traumatic event exposure, social isolation, and minority older adults (Acierno et al., 2010; Abrams, Lachs, McAvay, Keohane, & Bruce, 2014; Beach et al., 2005; Beach, Schulz, Castle, & Rosen, 2010; Dong, Simon, & Evans, 2012; Lachs, Williams, O'Brien, Hurst, & Horwitz, 1997; Wallace, & Bonnie, 2003).

## Cost and Consequences

These rates and reports, or lack thereof, translate into high costs, both emotionally and financially. Older adults who experience mistreatment have significantly higher levels of psychological distress, are twice as likely to be hospitalized, and have three times higher risk of death then their peers (Comijs, Penninx, Knipscheer, & van Tilburg, 1999; Dong & Simon, 2013; Lachs, Williams, O'Brien, Pillemer, & Charlson, 1998). The out-of-pocket cost can also be staggering. Estimates indicate that financial exploitation resulted in an annual financial loss of 2.9 billion in 2009 (NCPEA, VT, MMMI, 2011) and violent injuries to older adults add are reported to add over 5.3 billion to the health expenditures annual (Mouton et al., 2004).

## Characteristics of the Offender

Mistreatment can occur across a variety of settings (e.g., long-term care, assisted living, in-home) and, theoretically, perpetrators can present with any unique set of characteristics. Nevertheless, empirical research points to certain characteristics that are often evident in perpetrators of mistreatment. However, due to inconsistencies in the definition, and subsequent measurement, of mistreatment, discrepancies in the descriptive characteristics may emerge.

The National Elder Abuse Incidence Study (NEAIS) has found that perpetrators of elder mistreatment were more often males (53%) and the majority (60%), either male or female, were under the age of 60. Except for cases of financial abuse (Jackson & Hafemeister, 2013), a shared living situation is associated with a greater likelihood of mistreatment, in part due to the continual exposure and, therefore, increased opportunities for mistreatment (Lachs & Pillemer, 2004). NEAIS data also indicates that approximately 90% of perpetrators of elder mistreatment were family members (National Center on Elder Abuse, 1998), with adult children (47%) and spouses (19%) being the most and second most frequent offenders. Of the 10% of nonrelative perpetrators, friends/neighbors were among the most frequent, followed by in-home service providers and out-of-home service providers, respectively. Further examination of victim–perpetrator relationships by mistreatment type, revealed that of mistreatment occurring in the past year, partners or spouses were most frequently perpetrators in cases of physical and sexual mistreatment, and were equal with acquaintances in being the most frequent perpetrators of emotional mistreatment (Acierno, Hernandez-Tejada, Muzzy, & Steve, 2009). Perpetrators of a recent neglect event were most likely to be children or grandchildren (39%), followed by a partner or spouse (28%). Taken together, data from two national studies of elder mistreatment imply that the perpetrator–victim relationship is fairly consistent across different forms of abuse (e.g., neglect, emotional/psychological, physical), such that perpetrators are often relatives.

Beyond demographic and relationship factors, several perpetrator characteristics have been noted to increase elder mistreatment. For example, perpetrator mental health has frequently been identified as a risk factor for elder mistreatment, such that being seen for, or diagnosed with, a psychiatric or psychological condition is predictive of mistreatment (Johannesen & LoGiudice, 2013; Von Heydrich, Schiamberg, & Chee, 2012) with caregivers exhibiting signs of depression or feeling a lack of self-control being particularly prone to engaging in acts of abuse (Ziminski Pickering & Phillips, 2014). Furthermore, a lack of social support or appropriate caregiving training may increase burden and perceived stress, thus leading to increased risk of elder mistreatment (Lin & Giles, 2013; Ziminski Pickering & Phillips, 2014). Personality characteristics may also play a role, such that caregivers who are more verbally aggressive, critical, impatient, or tend to blame others may be more likely to abuse older adults (Lin & Giles, 2013).

Setting may also influence elder mistreatment prevalence. Lindbloom, Brandt, Hough, and Meadows (2007) undertook a systematic review examining perpetrator characteristics within the nursing home setting and found, with regard to physical abuse, offenders were more likely to exhibit a history of domestic violence, mental illness, and substance dependency (i.e., alcohol or drug; Lindbloom et al., 2007). Further, these individuals were identified as experiencing lower job satisfaction and greater work-related burn out, a finding that has been substantiated by further research (Shinan-Altman & Cohen, 2009). Specifically, long hours, low pay, and physical demands are often compounded by a lack of appropriate education and training in nursing home staff (Castle, Ferguson-Rome, & Teresi, 2015), which, unfortunately, can lead to elder mistreatment. In addition to mistreatment by staff, nursing home residents may also experience abuse from other residents in the form of: interpersonal problems with roommates, hostile interactions with other residents, inappropriate sexual behavior, unprovoked actions, and invasion of privacy or personal integrity (Castle et al., 2015).

In considering these perpetrator characteristics, it is important to note that the presence of these characteristics does not inevitably result in mistreatment. That is, many individuals who experience high levels of stress do not go on to perpetrate elder mistreatment. For this reason, it is important to continue to investigate mediating and moderating factors that may play a role in mistreatment.

## Family Patterns of Elder Abuse

Beyond focusing on characteristics of elder abuse victims and perpetrators individually, recent literature has also examined family patterns and relationship dynamics that may contribute to elder mistreatment. This research has uncovered general familial patterns that serve as risk factors for elder abuse. One such factor is dependency, either on the part of the older adult or the abuser. The older adult may feel dependent on the perpetrator for care while the perpetrator may feel dependent on the older adult for financial or other resources. These feelings of dependence on the part of the perpetrator may lead to resentment and eventual aggression (Schiamberg & Gans, 2000). Living arrangements leading to overcrowding or a lack of privacy, a family history of violence, aggressive behavior, and past or present family discord are also cited as potential risk factors for elder abuse (Jackson & Hafemeister, 2013; Schiamberg & Gans, 2000). The quality of the relationship between an older adult and their caregiver has been identified as an important mediator in the association between the characteristics of the older adult and characteristics of the perpetrator as they relate to elder mistreatment, with a poor relationship increasing the likelihood of elder abuse (Von Heydrich, Schiamberg, & Chee, 2012). Furthermore, an older adult is at higher risk for abuse if there is a family history of physical or emotional abuse (Von Heydrich et al., 2012). With regard to elder mistreatment by an intimate partner, research suggests that older adults who were subjected to emotional coercive control by their intimate partners at some point during their life were more

likely to be victims of physical abuse as an older adult (Policastro & Finn, 2015).

Historically, various models have been proposed to explain the possible ways elder abuse occurs in families (see Table 2). Despite the long-standing popularity of these models, there has been a more recent push to develop models with a broader scope and more focus on the relationship dynamics between the older adult and abuser

**Table 2**  Models of elder abuse

| Model | Description |
|---|---|
| Caregiver Stress Theory (Wolf, 2000) | Elder abuse occurs when the caregiver is not able to manage the emotional and physical demands of their role |
| Social Learning Theory (Bandura, 1978) | Elder abuse is the result of learned behavior on the part of the caregiver who likely used violence previously to resolve situations |
| Social Exchange Theory (Homans, 1958) | Assumes the abusive individual feels slighted in their relationship and resort to violence in an attempt to gain what they feel they deserve |
| Background Situational Theory (Dyadic Discord) (Riggs & O'Leary, 1996) | Elder abuse is a combination of contextual factors (e.g., past family violence) and situations factors (e.g., relationship dissatisfaction) |
| Power & Control Theory (Pillemer & Finkelhor 1989) | The abusive individual displays a pattern of coercive tactics in their relationships to maintain power and control |
| Ecological Model (Parra-Cardona, Meyer, Schiamberg & Post, 2007) | Elder abuse is fostered through various influences, including individual and relationship characteristics, community resources, and societal influences |
| Biopsychosocial Model (Engel, 1977) | Places the older adult and their abuser in the context of their sociocultural environment, including family and friends, highlighting the importance of status inequality and relationship, power, and exchange dynamics |

(Jackson & Hafemeister, 2013). More recent models of elder abuse detail potential pathways by which elder abuse may begin, and endure, in a caregiving relationship. For example, Ziminski Pickering and Phillips (2014) have proposed the Family-Power Dependent Relationships Model where a power imbalance is responsible for subsequent aggressive behavior on the part of the adult child as a means to regain power or restore their perceived power deficit. And Lin and Giles (2013) suggest the likelihood of elder abuse increases with the existence of a dysfunctional communication style between caregivers and care recipients. Similar to power-focused models, Lin and Giles (2013) posit certain characteristics of the caregiver, such as substance abuse, high stress, mental health issues, or aggression, make them more likely to see the care recipient as having a position of power; this leads to a feeling of powerlessness or a loss of control in their interactions with the older adult care recipient (Lin & Giles, 2013; Von Heydrich et al., 2012). When the older adult displays noncompliant behaviors, these are interpreted as threatening and trigger an aggressive response on the part of the caregiver. Importantly, in this model, the communication style of the older adult also plays a role in mistreatment, such that noncompliance or nonresponsive behaviors may trigger negative emotional responses from caregivers. However, the relationship between the behaviors of the older adult and caregiver may also be bidirectional, such that caregivers who interact with older adults in a patronizing way or who encourage dependence may cause the older adult to doubt their own abilities, leading to the previously mentioned noncompliant or nonresponsive behaviors. Regarding the perpetuation of elder abuse, one might consider a negative feedback loop, such that abusive behaviors lead to a feeling of inadequacy in an older adult. These feelings of low self-efficacy may lead to nonresponsive or noncompliant behaviors in an effort to avoid invoking further mistreatment. The reactions of the older adult to the abuse only further agitate the caregiver, feeding into a negative cycle of repeated mistreatment (Lin & Giles, 2013). Although, on a positive note, there is research to

suggest that when older adults attempt to improve the relationship with their caregiver (e.g., empathy and perspective taking) the likelihood of an abusive encounter decreases (Von Heydrich et al., 2012).

Given the different types of elder mistreatment, it is important to explore the relationship between family patterns and abuse types. Regarding financial elder abuse, older survey respondents identified aggressive or demanding children who feel entitled to financial assistance as a problematic family characteristic that made them concerned about potential abuse (Bagshawa et al., 2013). Further risk factors identified by participants for financial abuse included: a sense of entitlement on the part of the caregiver to the older adult's property or other possessions, diminished capacity in the older adult, or dependency on the part of the older adult, or the older adult feeling frightened of the abuser (Bagshawa, Wendta, Zannettinob, & Adamsa, 2013). Jackson and Hafemeister (2014) compared four different types of elder mistreatment and found each characterized by different family patterns. With regard to pure financial elder abuse, the victim was usually unaware of the financial exploitation and was more likely to live alone. In the case of hybrid financial abuse, there was generally a pattern of mutual dependency between the older adult and the perpetrator. Physical elder abuse often occurred when the older adult victim displayed a desire to protect the perpetrator. Finally, neglect was most prominent in cases where the older adult and perpetrator lived together and when isolation was a concern.

## Assessment of Elder Abuse

### Assessment Process

As older adults who are abused and neglected may have very limited access to people outside of their home environment (Imbody & Vandsburger, 2011), health care settings are a prime point of contact for detecting elder abuse (Fulmer, Guadagno, Bitondo Dyer, & Connolly, 2004). In particular, identification of abuse could occur during primary care outpatient visits, inpatient hospitalizations, discharge planning, and home health assessments (Dong, 2015). However, given that meetings with healthcare providers may be brief and sporadic, there is a need to optimize the opportunity to identify potential instances of abuse (Imbody & Vandsburger, 2011).

Over the years, many protocols, guidelines and diagnosis models have been established in order to guide the assessment of elder mistreatment. Most recently, Dong (2015), proposed a pathway for health professionals to detect and then intervene in cases of suspected elder abuse. Initial awareness of abuse may occur through several avenues. First, a professional may become aware of the potential of abuse due to heightened vulnerability of an individual and social situation. Second, through screening for elder abuse (see Table 3), a professional may become aware of the abuse. Third, the individual, family, or others may report the abuse. Following suspicion of abuse, the assessment can occur. Dong (2015) provides a framework for assessment, which consists of taking a history, psychological assessment, physical examination, observation, consideration of social and cultural factors, and documentation.

## Signs and Indicators of Abuse

Compared to other forms of mistreatment where injury and neglect are more closely linked to abuse, changes associated with aging can appear like mistreatment or neglect but not actually be mistreatment (Fulmer et al., 2004). Therefore, it is necessary to identify signs of abuse that are effective in indicating older adult mistreatment. Many elder abuse screening tools outline potential indicators of abuse. For example, the Elder Abuse Suspicion Index (EASI) suggests that elder abuse may be associated with poor eye contact, a withdrawn nature, malnourishment, hygiene issues, bruises, cuts, inappropriate clothing, or medication compliance issues (Yaffe, Wolfson, Lithwick, & Weiss, 2008). The Expanded Indicators of Abuse Tool (E-IOA;

**Table 3** Summary of tools for assessing elder abuse

| Name of assessment and length | Description |
|---|---|
| Brief Abuse Screen for the Elderly *Brief Screen (1 min)* (BASE; Reis & Nahmiash, 1998) | 5-question trained-clinician administered screen that assesses for mistreatment. To be used with the Indicators of Abuse scale for a more thorough assessment |
| Caregiver Abuse Screen (CASE) *Brief Screen for Caregiver* (Reis & Nahmiash, 1995) | Self-report screening consisting of 8 (yes/no) non-confrontational questions for the caregiver. Depending on item scores of 1 or >4 indicates likely abuse. Care-recipient is not assessed |
| Elder Abuse Suspicion Index (EASI) *Brief Screen (<2 minutes)* (Yaffe, Wolfson, Lithwick, & Weiss, 2008) | A 6-item (yes/no/did not answer) physician administered assessment for abuse in cognitively intact older adults with follow up for positive items and an observational assessment of physical well-being and behavior. Available in English and French |
| Hwalek-Sengstock Elder Abuse Screening Test (Neale, Hwalek, Scott, Sengstock, and Stahl, 1991) | A brief 6-item assessment of physical abuse, vulnerability, and potential abusive situations in care-recipients. Not indicated for those with cognitive impairment |
| Principles of Assessment and Management of Elder Abuse Tool *Brief Screen* (Bomba, 2002) | Concise 2-page tool that provides definitions and indicators of abuse; a flow-chart for the management and monitoring of abuse; values, principles, and best practices for multidisciplinary practitioners; as well as, six screening questions and follow ups for older adults |
| Screen for Various Types of Abuse and Neglect (American Medical Association, 1992) | Concise interview screening for abuse administered to older individual consisting of nine questions (e.g., "Has anyone at home ever hurt you?"). Positive answers require a more comprehensive assessment |
| Vulnerability to Abuse Screen Scale *Brief Screen* (Schofield & Mishra, 2003) | A 12 item (yes/no) self-report scale that asses four risk factors predicting abuse (vulnerability, dejection, dependence, and coercion) in women. Currently lacks validation in men |

(continued)

**Table 3** (continued)

| Name of assessment and length | Description |
|---|---|
| Conflict Tactics Scale *Moderate Screen (12–15 min)* (Strauss, 2007) | 19 (self-report or interview) items that assess for physical, psychological, and sexual abuse. Was not originally developed for use with older adults |
| Elder Assessment Instrument (EAI) *Moderate Screen (12–15 min)* (Fulmer, 2003) | A 42-item likert-scale checklist for cognitively intact older adults. Provides: a general assessment; specific abuse, neglect, exploitation, and abandonment indicators; guidelines for social services referrals |
| Questions to Elicit Elder Abuse *Moderate Screen* (Carney, Kahan, and Paris, 2003) | 15 interview questions for the older individual (if there is a caregiver, they are asked to step out of the room) that fall into four categories (neglect, physical abuse, emotional abuse, and financial abuse) |
| Geriatric Mistreatment Scale *Moderate Screen* (Giraldo-Rodríguez and Rosas-Carrasco, 2013) | 22 (yes/no) response items assessing neglect, physical, psychological, economic, and sexual abuse, as well as, the name of the offender. Scores >1 qualifies as maltreatment. English and Spanish versions |
| Indicators of Abuse (IOA) *Thorough Assessment (20 minutes)* (Reis & Nahmiash, 1998) | The IOA assessment is to be completed by a trained professional following a 2–3 h interview with the caregiver and care recipient. Both the caregiver and recipient are assessed |
| Expanded Indicators of Abuse Tool *Thorough Assessment* (Cohen, Halevi-Levin, Gagin, & Friedman, 2006) | The E-IOA is a transformation of the IOA into a semistructured quantitative tool that collects information related to behavioral, emotional, and family problems |
| Older Adult Financial Exploitation Measure (OAFEM) *Thorough Assessment* (Conrad, Iris, Ridings, Langley, and Wilber, 2010) | 30-item tool that ask the older adult about several forms of financial exploitation (theft and scams, financial victimization, coercion, financial entitlement, signs of possible financial exploitation, and money mismanagement) |

(continued)

**Table 3** (continued)

| Name of assessment and length | Description |
|---|---|
| Older Adults Psychological Abuse Measure (OAPAM) *Thorough Assessment* (Conrad, Iris, Ridings, Langley, and Anetzberger, 2011) | A 31 (long-form) or 18 items (short-form) measure that assess psychological abuse. Questions include, "In the past 12 months, has the [name of alleged abuser] taken things away or threatened to take things away from you?" |

Note: For further assessment information interested parties should look to Tomita's (1983) Elder Abuse Diagnosis and Intervention Model, Rathbone-McGuan's (1982) Case Detection Guidelines for use during in-home observations, and Bass, Anetzberger, Ejaz, and Nagpaul (2001) Screening Tools and Referral Protocol (STRP) that combines educational information and observation with 27 assessment instruments and state-specific intervention strategies

Cohen, 2006) also provides a checklist of the signs of abuse within five categories (physical abuse, material abuse, neglect, sexual abuse, and psychological abuse) with specific indicators for each category. For example, an indicator of financial abuse may be a discrepancy between the individual's income and living style that is not explained by other circumstances.

A discussion of the physical indicators of mistreatment provides a good illustration of the complexity of identifying abuse in older adults. Many physical symptoms and injuries can appear as signs of mistreatment and medical conditions. For example, the appearance of blunt force trauma could, in fact, result from a bleeding disorder secondary to medications or could be a sign of physical abuse (see Hoover & Polson, 2014 for a review). There are no physical signs that definitively indicate mistreatment; however, many physical signs and symptoms could indicate potential abuse such as bruising in unusual locations, dehydration, malnutrition, missing or mismanaged medications, poor control of medical problems, urine burns, and evidence of sexual abuse (see Hoover & Polson, 2014, for a comprehensive list). During a physical examination, assessing whether the explanation provided for the injuries is reasonably consistent with the

physical findings can help to differentiate unintentional from intentional injuries (Hoover & Polson, 2014).

## Specific Assessment Measures

As mentioned above, various elder abuse assessment tools have been developed for use with the older adult, the caregiver, and both the older adult and the caregiver (see Table 3). A challenge in selecting an assessment tool is finding one that is brief yet comprehensive, user-friendly, validated, and standardized (Imbody & Vandsburger, 2011). In a 2004 review, Fulmer and colleagues identified the Brief Abuse Screen for the Elderly, the Conflict Tactics Scale, and the Elder Assessment Instrument as recommended assessment tools. Since that publication, at least six additional assessments have been published, increasing the amount of available resources.

Different types of assessments serve different purposes (e.g., brief vs. comprehensive, identification vs. prediction). Brief screening instruments can be most efficacious in busy environments, such as emergency rooms, while more in-depth assessments could be employed when a brief screen indicates possible abuse (Fulmer et al., 2004). Furthermore, some instruments function to identify abuse that has already occurred, while others are designed to detect vulnerability to abuse (Abolfathi Momtaz, Hamid, & Ibrahim, 2013). As such, as elder abuse is often a multidimensional phenomenon, assessment choice may be guided by the purpose of the user.

## Elder-Specific Issues for Abuse Assessment

Although the underreporting of elder abuse may be due in part to a reluctance to report, some older adults may be unable to report due to cognitive impairment (Fulmer et al., 2004). Therefore, screening for elder abuse may first require a cognitive-screen to determine the older adult's level of cognitive functioning and determine if they are competent to self-report experiences of

maltreatment (Hoover & Polson, 2014). Given potential issues of dependency between an older adult and their caregiver, interviewing the older adult separately from their caregiver is preferable. The care recipient may be less forthcoming in a combined interview due to fears of retaliation or dependency on the caregiver to respond on their behalf (Hoover & Polson, 2014). Cultural competency is another concern for professionals assessing older adults. Given the increasing proportion of the older population comprised of minority individuals, issues of cultural diversity must be considered during assessment. For example, symptoms from cultural healing practices (e.g., cupping) could resemble and mistakenly be interpreted as signs of abuse (Palmer, Brodell, & Mostow, 2011). Furthermore, the lack of representation of many cultures in the professionals providing services could serve as a cross-cultural barrier that deters initial reporting of abuse (Imbody & Vandsburger, 2011).

## Future Directions for Elder Abuse Assessment

Despite, and perhaps because of the plethora of tools that exist to assess elder abuse, a general standardized tool has not been identified (Imbody & Vandsburger, 2011). As mentioned above, an effective tool would be brief yet comprehensive, psychometrically sound, and user-friendly. Additionally, given the multiple settings that serve as a possible detection point for elder abuse, the assessment tool should be useful in multiple, distinct settings ranging from hospitals to police stations (Imbody & Vandsburger, 2011). Another challenge is determining the criterion for elder abuse. Even across studies using the same instrument, there is variability in definitions of "cut-offs" for identifying abuse (Dong, 2015). Some rely on the identification of any positive item as a cut-off while others use a threshold or combination of items approach (Dong, 2015). As such, in addition to developing a standard approach to the assessment of elder abuse, there is a need to clarify scoring procedures.

## Course Prognosis and Recidivism

Once elder mistreatment is suspected, reports can be, and some cases must be, made to either adult protective services (APS) or local law enforcement. All states and the District of Columbia have adult protection statutes that govern the reporting of suspected elder mistreatment, with all but one state (New York) mandating reporting. Sixteen of the mandatory reporting states (Delaware, Florida, Indiana, Kentucky, Louisiana, Mississippi, New Hampshire, New Mexico, North Carolina, Oklahoma, Rhode Island, South Carolina, Tennessee, Texas, Utah, and Wyoming) require "any person" suspecting or having actual knowledge of elder mistreatment to file a report. The remaining states delegate reporting responsibilities to specific occupational groups or have implemented a circumstance specific hybrid approach. Occupations and professionals commonly mandated to report include, but are not limited to, medical and mental health care providers, caregivers, financial professionals, educators, legal professionals, law enforcement officers, and employees of residential facilities or programs serving older adults. To more fully understand the elder mistreatment legislation governing reporting in your area please refer to your state's legal statues (NCEA, 2015a, 2015b).

Once a report has been made to adult protective services, the organization works to respond through three main functions: receiving reports; investigating reports; and case planning, monitoring, and evaluation (Wallace & Bonnie, 2003). The first of these functions is to receive the report, screen for fit, triage, and provide any needed emergency services. If a referral is accepted, it is assigned to a caseworker to conduct an investigation, which serves to substantiate that abuse has occurred, and identify needed services. Agency policy and procedures on investigation vary greatly by state, with some states relying exclusively on law enforcement and others utilizing caseworkers to assess risk, as well as, cognitive and functional abilities through face-to-face visits with the alleged victim. Following an investigation and assessment of need, case planning is conducted with the aim of ceasing mistreatment

and safeguarding the identified older adult. Services provided can include, but are not limited to, providing attendants, legal assistance, counseling, money management, caregiver services, meal delivery, social support, education, reassessments, and coordination of further care.

Once adult protective services receive, investigate, and substantiate a report of mistreatment, law enforcement steps in to offer a range of legal interventions (e.g., criminal prosecution, civil remedies, and civil protection; Kapp, 1995; Moskowitz, 1998). Of these interventions, criminal prosecution appears to be in a unique position to protect the victim, raise public awareness, and hold the perpetrator responsible (Kohn, 2012). Yet care should be taken to engage elder mistreatment victims in the process in order to avoid victim oppression, not reinforce ageist stereotypes, and facilitate victim service delivery (Kohn, 2012). Despite the apparent benefits of prosecution, many barriers prevent older adults from pressing charges. Cases can take an average of eight months to be filed and an additional seven months to be prosecuted, with some taking much longer (Navarro, Gassoumis, & Wilber, 2013). Further, as perpetrators are often family members, an older adult may fail to press charges in order to protect their loved one, believing that the perpetrator needs mental health treatment, or due to the fear being placed in a nursing home (Jackson & Hafemeister, 2013). If convicted, the sentencing for elder mistreatment varies greatly from a few nights in jail to probation or up to 10 years of incarceration (Jackson & Hafemeister, 2013; Navarro et al., 2013) depending, in part, on whether or not the perpetrator has received other charges. Even when charges are brought, research indicates that, on average, only 18% of prosecuted cases end in convictions (Jackson & Hafemeister, 2013), with some types of mistreatment, such as emotional and financial abuse, resulting in lower conviction rates. Given these barriers, it is disappointing, but not surprising, that perpetrators experience no legal consequences 44% of the time (Jackson & Hafemeister, 2013). Unfortunately, the lack of legal ramifications for perpetrators can result in increased recidivism, especially if continued cohabitation or contact with the perpetrator occurs (Rizzo, Burnes, & Chalfy, 2015).

## Treatment: Prevention and Intervention

The most commonly used and controversial treatment for elder mistreatment is reporting the abuse (Wallace & Bonnie, 2003). The increased use of reporting as intervention is likely due to many factors, including the expanding older adult population, increased number of states with mandatory reporting laws, and enhanced efforts to improve awareness of elder mistreatment (Friedman et al., 2014; National Center on Elder Abuse, 1997). Despite the pervasiveness of reporting, many questions have been raised about the variations in, as well as, the effects and consequences of reporting for the victim, reporter, perpetrator, and family (for further information, see Bonnie & Wallace, 2003). Nevertheless, mandatory reporting appears to increase investigation rates and, thus, is an important component of adult protective services legislation (Daly, Jogerst, Brinig, & Dawson, 2003). Given that reporting may not always occur due to concerns of victims and mandated reporters, as described previously in this chapter, future research is necessary to better understand the cost and benefits of reporting in order to better guide future recommendations.

Given reporting's ubiquitous usage as a treatment for elder mistreatment, many health systems interventions have centered on training health care personal to identify and report on suspected abuse. This focus on training is supported by the Administration on Aging's Prevention of Elder Abuse, Neglect, and Exploitation program, which works to train professionals, support outreach, and increase public awareness of the issue. Specifically, grant funded programs such as UC Irvine's Center of Excellence on Elder abuse and Neglect, work to provide assessments, technical assistance, conduct research, and disseminate educational trainings to professionals on issues related to elder mistreatment. As a result of these grant-funded initiatives, the following

recommendations to improve the effectiveness of educational curriculums have been provided: collaborate with community-based APS agencies; understand the importance of adequate aging background knowledge; and customize the standardized educational and training program to include cultural and trainee considerations (Gironda et al., 2010; Heath, Dyer, Kerzner, Mosqueda, & Murphy, 2002). Despite these strides in awareness and training, empirical evaluation surrounding reporting practices still remains scarce.

Beyond reporting, research on how to prevent or intervene in the case of elder mistreatment remains at a "nascent stage" (Rizzo, Burnes, & Chalfy, 2015). In fact, the most recent systemic review of elder mistreatment interventions, found only eight studies meeting the preestablished methodological standards and concluded that there is "currently insufficient evidence to support any particular intervention related to elder abuse targeting clients, perpetrators, or health care professionals." (Ploeg, Fear, Hutchison, MacMillan, & Bolan, 2009, p. 206). This paucity of research reflects many challenges including, but not limited to, ethical and consent issues, human subject protection matters, mandatory reporting requirements, limited agency cooperation, participant recruitment complications, and lack of resources (Connolly, 2008); Palmer, Brodell, & Mostow, 2011). These challenges notwithstanding, a number of researchers have recently sought to add to this body of literature in order to better inform practice.

In regard to community-based elder abuse interventions that partner with local law enforcement, Navarro et al. (2013) have demonstrated that an elder abuse multidisciplinary team, which includes a "forensic center" component, greatly improved the rates of both filed charges and successful prosecutions. Furthermore, a systematic, conceptually based evaluation study by Rizzo et al. (2015) examined a multidisciplinary (social work-lawyer) elder mistreatment intervention model and discovered clients who accepted integrated multidisciplinary services were at a lower risk of future mistreatment then those who only pursued social work services. Thus, it appears

that a collaborative multidisciplinary approach may reduce recidivism, and, as such, should be an area of consideration in future research. Another community-based elder mistreatment intervention program, Eliciting Change in At-Risk Elders or ECARE, increased the working alliance between service providers and at-risk elders, as well as decreased dependency, isolation, economic and housing risk factors, and social and community risk factors among the older adults enrolled (Mariam, McClure, Robinson, & Yang, 2015), further establishing the importance of integrated care and highlighting the benefits of a trust relationship. Beyond these community-based interventions, Sirey et al. (2015) have proposed an evidence-based psychotherapy pilot program (PROTECT), which integrates problem solving therapy and anxiety management into routine elder abuse services, to alleviate depressive symptoms and enhance self-efficacy among older women who have experienced abuse. Preliminary findings suggest that PROTECT participants demonstrate increased problem-solving self-efficacy and satisfaction with services indicating the potential usefulness of incorporating psychological interventions into elder abuse services in order to improve mental health outcomes and reduce recidivism rates amongst older women who experience mistreatment. Finally, another area of consideration addressed by multiple calls to action is criminal justice. Specifically, future research should seek to empower older adults to fully consider their legal options and criminal prosecution, perhaps adapting domestic violence interventions in order to increase use of victim services (Kohn, 2012).

Despite these steps, there remains a dearth of evidence-based prevention and intervention approaches for elder mistreatment (Pillemer, Connolly, Breckman, Spreng, & Lachs, 2015). As such, more systematic research is desperately need to better understand the effects and cost-effectiveness of preventative measures and interventions on different types of elder mistreatment, perpetrator characteristics, psychological distress, and high risk dyads across diverse settings, communities, and cultures (Dong, Chen, Chang, & Simon, 2013; Jackson & Hafemeister, 2014).

Furthermore, a number of interventions (e.g., caregiver education, respite programs, technological interventions, psychotherapy, call centers, and specific abuse type interventions) are currently in use and future evaluation into their effectiveness appears warned.

## Conclusion: Where Do We Go from Here? Next Steps and a Call to Action

Given the increasing number of adults entering old age, and the change in social dynamics, it is imperative that future research examines elder mistreatment issues in order to inform policy and prepare for the influx of older adults. Unfortunately, to date, retrospective research designs, diverse sampling methods, differing age of inclusion criteria, and poorly defined elder abuse criteria (Wallace & Bonnie, 2003) have plagued accurate assessment of this far-reaching issue. Moving forward it is imperative that we continue and enhance our efforts to conduct basic research on the phenomenology of elder mistreatment, validate and standardize assessment, further improve sampling techniques, establish theoretically based treatments and decisional outcomes, and allocate long-term federal, state, and private funding for elder mistreatment research.

Furthermore, when considering the various factors that may play a role in elder mistreatment, it is important to go beyond individual characteristics and view the situation within its larger sociocultural environment (Johannesen & Logiudice, 2013). For example, low levels of social support for both older adults and perpetrators are a risk factor for abuse (Johannesen & Logiudice, 2013). In addition, norms of a culture regarding views on older adults, gender, dependency, and individual with disabilities can impact the presence or absence of elder abuse. Finally, as public policy may influence the occurrence of elder abuse (Ziminski Pickering & Phillips, 2014) it is essential that we examine our individual values and cultural norms when constructing and implementing elder mistreatment policy. Taken together, it is the hope of the authors that this review chapter and

recommendations would serve as a guide to educate and motivate readers towards achieving the goal of increased quality of life for older adults and ending elder mistreatment.

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# Part VI

# Behavioral Intelligence

# Forensic Linguistics

Robert A. Leonard

## Forensic Linguistics[1]

Sometime in 2001, Brian Hummert discovered a letter on his car's windshield that began, "Here is the proof that your wife is a slut." The letter

writer said he had engaged in a "one niter" with Charlene Hummert years before, and she had ruined things for him with his girlfriend. In chillingly precise detail, he described Charlene's recent movements and activities. He related that she had bought sex paraphernalia through the mail. He had followed her through a local York, Pennsylvania shopping mall, and not only did he know that she had had a "glamour photograph" taken at a certain gallery, but he had also obtained a copy of that photograph—Charlene holding a red rose—and included it with the letter. The writer even knew about the Hummerts' home surveillance camera and the code—7805—of their security system. The letter stated: "the time is now right for payback."

In March of 2004, Charlene Hummert was found strangled to death, her body dumped in the back of her SUV and abandoned in a supermarket parking lot. Police discovered a blurry surveillance video of a suspect entering the supermarket. The autopsy showed the cause of death to be ligature strangulation and a search of the Hummert home yielded, among other evidence, a red dog

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[1] The English language has two main meanings for the word linguist: one, a speaker adept at a foreign language (indeed, in many agencies, such as the FBI, a "linguist" has this meaning), and two, a scientist who studies human language as a set of real-world phenomena. Academic, scientific linguists belong to the second group (although many are also adept at foreign languages).

Forensic linguistics is the application of the science of linguistic investigation to issues of law. Forensic linguistics augments legal analysis by applying rigorous, scientifically accepted principles of analysis to legal evidence like contracts, letters, wills, confessions, and recorded speech.

Linguists—as all scientists—seek to explain the nonrandom distribution of data. Just as bullets do not randomly issue from firearms nor chemical concentrations randomly spread throughout a human body, words are not randomly found to issue from the keyboards and mouths of speakers of English or any other language. Words adhere to patterns; these patterns are the subjects of systematic observation by scientific linguists.

As in all other sciences, linguistics solves problems by constructing competing hypotheses and then testing which hypothesis better explains the nonrandom distribution of the data. For example, Galileo demonstrated that

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while the hypothesis that the Sun revolves around the Earth explained much of the data (it certainly looks like it does)—the competing hypothesis, the Copernican heliocentric model that states the Earth revolves around the Sun, explained more of the nonrandom distribution of the data (for example, the observed, nonrandom orbits of the planets), and explained the totality of the data better, and was therefore the superior hypothesis.

leash that matched the markings on Charlene's neck. Her pants were on backwards, suggesting she had been dressed after her murder. Someone apparently then dragged her across her own driveway into her car. Physical evidence was overwhelming that she had been killed at home. At this juncture, a letter was received by the lead detective and the press from a self-confessed serial killer. It read, "This is the fifth woman I killed. I'm getting good at it." It was signed, "John."

## Modern Forensic Linguistics Is the Application of the Science of Linguistics to Issues of the Law

Linguistics is the scientific study of language. With hundreds of professional peer-reviewed journals, it is a well-established science, recognized by the American Academy of Sciences, and regularly granted research funds by the National Science Foundation. In virtually any major university or college, a student can specialize in linguistics and many major universities grant a Ph.D. degree in linguistics. Forensic linguistics applies linguistic science to legal cases, such as this murder, and is recognized by the courts. NOTE: See Coulthard, 2004, Coulthard & Johnson, 2010, Grant, 2013, Leonard, 2006, Leonard, 2012, McMenamin, 2002, McMenamin, 2004, Shuy, 1993, Shuy, 1998, Shuy, 2006, Shuy, 2014, Solan & Tiersma, 2004, Tiersma & Solan, 2002

This chapter focuses on two case studies—first, the murder of Mrs. Hummert, and second, the kidnapping of a little girl—that exemplify investigatory strengths of forensic linguistics.[2]

Among other things, forensic linguistics narrows the suspect pool of possible authors, discerns demographic information from language evidence, and then, given samples from subjects, helps identify or disallow possible authors. In this case, the Pennsylvania State Police Major Case Team wanted to know, "What can you tell us about whoever wrote these letters?" Knowing almost nothing about the murder, my colleague Dr. Benji Wald and I analyzed the letters.

Authorship analysis seeks to answer questions such as who wrote a bomb threat, a ransom note, a threat letter, a blog post, or an e-mail. For example, in a case the prosecutor referred to as the "Facebook Catfishing Murders of East Tennessee" I was asked to seek the identity of the "CIA agent Chris" who sanctioned the assassination of a young couple.

Linguistic demographic profiling and authorship analysis are on a continuum, incrementally narrowing down the suspect pool. One links the questioned (Q) documents to ever smaller groups.

An illustrative example of a profiling case is one analyzed by my research partner, Dr. Roger Shuy, the founder of forensic linguistics in the USA. Investigators in the Midwest gave him a ransom note and asked essentially the same question the police asked me in the Hummert case: What can you tell us about the writer of the document? The ransom note given to Dr. Shuy was "scrawled in pencil" and left on the doorstep of the parents, who contacted the authorities, who then came to Dr. Shuy. Here is the note, transcribed[3]:

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[2]Forensic linguists help investigators, litigators, triers of fact, and threat assessment and threat management professionals *extract maximum intelligence from language evidence such as letters, e-mails, notes and texts*, often involving cases such as the following, types other than those discussed in this chapter, e.g.:

- Overt and implied threats of violence
- Stalking
- Assessment and interdiction of internal and external threats
- Identification of extortionists and threateners
- Fraud detection, investigation, and deterrence
- Internal and external illegal information leaks
- False information spread
- Corporate espionage detection and interdiction

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[3]Dr. Shuy, Georgetown Distinguished Research Professor of Linguistics, Emeritus, wrote in 2001 about this case, and linguistic demographic profiling in general: "It is believed that the idea of psychological profiling originated in the Behavioral Science Laboratory of the FBI, where specialists in psychology and criminology worked together to assess the characteristics that would point to a specific type of perpetrator of a recent crime. Several non-governmental groups now offer their psychological profiling services to private industry after hate mail or threat messages are received. Until recently, however, such profiling has not included the analysis of linguistic clues about the geographical origins, socioeconomic status, race, age, gender, and even occupation of the writers. In short, the resource of knowledge about dialect geography, lexicography, and sociolinguistics has been largely overlooked for this task. Threat letters and ransom notes can be a rich source of forensic information. The problem is that most law enforcement officers and prosecutors are unfamiliar with linguistic variation in English speech and writing that can give them the most help." (Shuy 2001, p. 2).

> Do you ever want to see your precious little girl
> again? Put $10,000 cash in a diaper bag.
> Put it in the green trash kan on
> the devil strip at corner 18th and Carlson. Don't
> bring anybody along.
> No kops!! Come alone! I'll be watching you all the
> time. Anyone with you,
> deal is off and dautter is dead!!!

Certain features jump out. Probably the most noticeable are the obvious misspellings:

- the substitution of *k* for *c*: kan for can, kops for cops
- the spelling of daughter as dautter

Further, the cadence and structure of the last sentence is awkward, and omits some possible words:

- It reads "Anyone with you, deal is off and dautter is dead!!!"
- It could read: "*If* anyone *is* with you, *the* deal is off and *your* dautter is dead!!!"

There are any number of possible explanations for the misspellings and the odd last sentence. Three of them are:

1. The writer is a native speaker of another language that only uses *k* for the K sound in *cat* and *cops*. (But note that *corner*, *Carlson*, and *come* are spelled not with *k*, but correctly, with *c*.) If the writer is a nonnative speaker of English, this can also explain the poorly done last sentence.
2. The writer is an English speaker, but only partially literate.
3. The writer is well educated and is consciously *pretending* not to know how to spell or write a standard sentence—that is, the misspellings and poor last sentence are an attempt at *disinformation*.

It is of course normal for analysts to have several possible explanations for the patterns they see. As in other sciences, we treat these as *competing hypotheses*, and, as in other sciences, the question becomes: which is the *superior hypothesis* that can best "*explain the nonrandom distribution of the data*"?

One obvious measure of superiority is that a hypothesis can explain all, or more, of the data, rather than only some of it. So while Hypothesis 1 can explain some of the data—the last sentence, and *kops* and *kan*—it cannot account for *corner, Carlson*, and *come*.

Hypothesis 2 can explain the last sentence, and all the misspellings. It can also explain the variation between the *kops* and *kan* misspellings and the correct spellings of *corner*, *come*, and *Carlson*, since a semiliterate writer might only sometimes misspell simple words, and thus might spell *corner* and *come* correctly, and might also know the street name *Carlson* by sight, from street signs. But there are patterns in the data that Hypothesis 2 cannot explain, for example: *watching*, *diaper*, and *precious* are spelled correctly, and, even more important—because it is systematic and not a single word like *precious*, the spelling of which perhaps an uneducated writer could look up—the *punctuation* in the *entire* ransom note is quite standard, and fully literate. It also makes sense to the forensic linguistic analyst that punctuation might be unnoticed by someone attempting to "dumb down," and not be foremost in a person's mind as a giveaway to educational level. Further, while it is possible to attempt to dumb down one's writing, it is less likely, and far more difficult, to "dumb up," to coin a phrase— indeed, that is rare; dumbing down is common.

Note also how the use of *precious* in the lead sentence "Do you ever want to see your precious little girl again?" conveys a tone that is mocking and cruel. This further supports Hypothesis 3— the word *precious* is totally unnecessary to the mere functionality of the note—"Do you ever want to see your ___ little girl again?"—would work as well; or the whole sentence could just be omitted. The mocking, cruel use of the word suggests someone with a reasonable command of the language—certainly someone who could spell *cops* and *can*. So Hypothesis 3 is superior—it can explain all the patterns in the entirety of the data. We are left with the conclusion that the writer is well educated but is trying not to seem so.

What else can the ransom note tell us about the author? There is a further clue that, especially if one is a fluent reader, is easy to miss the first few times one reads the note. An important skill

all fluent readers have is being able to unconsciously ignore terms that do not immediately make sense, and continue along to get the gist of the meaning even without that one piece. In the present case, it is the term *devil strip* in this sentence:

> Put it in the green trash kan on
> the devil strip at corner 18th and Carlson.

What is the *devil strip*? It is not a very common term, and it turned out to be an extremely important piece of evidence for Dr. Shuy as he sought to learn what there was to know about the ransom note's author. *Devil strip* is a term for the strip of grass in between a sidewalk and the curb. The reason it was important is that it is a term used in and around Akron, Ohio—and ONLY in that area. Outside the Akron area the term is relatively unknown.[4] I once gave an address in Columbus, Ohio where I discussed this case. A District Attorney told me she was standing behind two uniformed police officers, one from Akron and the other from nearby Columbus. When I mentioned *devil strip* the officer from Akron turned to his friend and said, "But that's what everybody calls it, no?" It was not.

This is even a better clue to the geographical speech community of the writer than it seems at first. The reader should consider what word he or she uses for the strip of grass in between a sidewalk and the curb. If you have one—and most of the hundreds of speakers I have asked do not—it is highly unlikely you realize your term is only regional, and not simply *the* term for it, like *cat* is the normal, generic, universal name for that animal. By using *cat*, you would not think you were giving away much information on where you were from, and you would be right.

Some respondents suggest they call such a grass strip a median, or some other such term. In New Haven, I discovered, it is called a *planter strip*. In Nassau County, NY, my father, a govern-

ment official, called it a "county strip" and explained that the county controlled it. I never thought it might have another name until I came across Roger Shuy's devil strip case. Thus, a term like this is unlikely to be consciously manipulated to deceive, so we may take the information that it gives at face value; the ransom note author quite likely thought he was using a generic term, as generic and universal as "trash kan." Perhaps in the future, when criminals routinely assume their words will be analyzed by trained forensic linguists, they might plant disinformation clues that are that subtle. But that time has not yet come.

So, Shuy looked at the note and asked the police if they had, on their suspect list, a "well-educated person from Akron." They did, and were no doubt amazed at the rapid, precise, detailed Sherlock Holmesian feedback. Shuy explained his rationale, and armed with this, the police presented this analysis to that suspect, and he confessed. This is an excellent point in our discussion to stress that in authorship cases, forensic *linguistics cannot identify a particular individual as a writer or speaker*. But contrary to popular lore, even DNA—considered the gold standard of forensic tests—cannot identify a particular individual. DNA can exclude a suspect, it can narrow a suspect pool, but its practitioners state that it does not identify individuals.[5]

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[5]As Dr. Daniel Drell of the Human Genome project states: "If the sample profiles don't match, the person did not contribute the DNA at the crime scene. If the patterns match, the suspect may have contributed the evidence sample…there is a chance [–exceedingly slim–] that someone else has the same DNA profile." Analogous to DNA matches, Dr. Drell explains the value of gathering "linking evidence in a chain":

Assume that type O blood is found at the crime scene. Type O occurs in about 45% of Americans. …If, in addition to being type O, the suspect is a blond, and blond hair is found at the crime scene, you now have two bits of evidence to suggest who really did it. … If you find that the crime scene has footprints from a pair of Nike Air Jordans (with a distinctive tread design) and the suspect, in addition to being type O and blond, is also wearing Air Jordans with the same tread design, you are much closer to linking the suspect with the crime scene. In this way, by accumulating bits of linking evidence in a chain…you can argue that your suspect really is the right person (Drell, n.d.).

A similar case holds for linguistic evidence: by accumulating matches of linguistic features as links in a chain, in addition to nonlinguistic evidence, a much stronger inference may be made that a suspect is the correct person.



**4**                                                            **A sign in Akron, Ohio.**

Similarly, forensic linguistics can exclude suspects and narrow the suspect pool. For example, if a note is written in Mandarin, and all good intelligence says that a suspect does not know Mandarin, she is excluded. On the other hand, if the note presents consistent features of, e.g., New York dialect, that narrows the suspect pool.

In court cases, it is solely the task of the trier of fact—the jury, or in a bench trial a judge—to determine if the expert's analysis of the distribution of linguistic patterns actually should cause them to conclude that a particular suspect wrote a particular document, and, further, whether that helps them decide that he is guilty or not guilty. There may be other persons in the world who could have generated the same or similar patterns as we find in whatever document is of interest.

Turning back to demographic profiling, recall that throughout the ransom note the punctuation was fully literate, and this suggested a well-educated writer. Punctuation, and orthography in general (i.e., spelling, spacing, and other aspects of transmitting a language into writing), can also indicate possible demographic features.

Readers familiar with Spanish will recognize the inverted question mark placed at the beginning of a question, as in *¿Quieres ir?* ("Do you want to go?"). This is so different from English that it is unlikely a Spanish speaker writing English would unconsciously write "¿Do you want to go?" But there are other, subtler differences.

Spanish (and other languages as well) does not capitalize the names of months, days of the week, nationalities, and languages, as does English, as in "*El español es una idioma bonita*" ("Spanish is a beautiful language"). Consider:

> I'm always watching when she walks to spanish class.

Not capitalizing *Spanish* could be merely a mistake, or it might be one indication of a Spanish speaker as opposed to an English speaker. In an actual threat case in California, we noticed:

> I challenge that you have the right to have her to yourself. I have known her since a very long time myself, perhaps even longer than you.

Consider *since*. This use of *since* suggests a nonnative English speaker. English has *for a long time* and *since 2013* but not *since a long time*. Perhaps this was a direct translation of French *depuis longtemps* (literally "since a long time"). Was there a French speaker in the suspect pool? There was, and as it turned out, patterns in his known documents matched several other patterns in the threat as well.

Concerning French vs. English speakers, consider the following, from an Internet page on French and English:

> The French punctuation requires a space before double signed punctuations marks such as:
>
> this one :
> this one ;
> this one ?
> this one !
> and this one %

Is this writer likely a speaker of English or French? (That there are spaces before the punctuation marks in the example do not indicate either a French or English speaker, because they are illustrations of correct French.) Let us assume, for non-linguistic case-related reasons—perhaps the suspect pool only has two such speakers—that there are only these two choices: English, or French (of course, from only the data given here, the writer may be a speaker of a language other than English or French).

> There are two indications the person is French rather than an English speaker: the use of *the* and *-s*:
> **The** French punctuation requires a space before double signed punctuation<u>s</u> marks such as…
> Standard English would be "French punctuation…" French would be "La [The] ponctuation française…".

As for *punctuation<u>s</u>*, that, of course, is not English. A French speaker might use it because the word "ponctuations" is a commonly used plural noun that by itself means "punctuation marks," or she perhaps mistakenly thinks it should agree with mark<u>s</u>. In any event, that *-s* points more towards a French speaker than an English one.

Indeed, the person who contributed this example to the website signed in as a French woman:

Agnès E.; Senior Member; location: France; native language: French of France [others are from Belgium and elsewhere].

A further example, from a phishing e-mail, reveals someone doing a poor job of masquerading as the English-speaking iTunes team. There is more than one mistake, but just consider the first line, which of course has an un-English space before the final "!":

Verify your iTunes account !
Dear customer,
We have received your iTunes account is used for fraud. Your account will be suspended until you confirm that you are the original user account.

– To confirm that you are the original user of this account: Click here

"We have received your iTunes account is used for fraud" does not specify whatever they claim to have received that led them to believe that your account is "used for fraud"—*being used fraudulently* would be a decent English phrase. My professional advice: Don't click there.

So we have seen how seemingly small details can provide intelligence that can prove useful in the investigation of cases. Let us return to the Hummert murder, to analyze the Stalker and Serial Killer letters. Here are the letters as we received them, followed by the retyped texts of the letters:

On the surface, the letters seem very different.

Here is the proof that your wife is a slut. Do what you will with it. Sorry it took so long. I only come occasionally back to the area on business. Merry Xmas. I will send you several copies of this so you get the information in case the slut intercepts one.

Before I tell you how I got it, I want to tell you a little about myself. I played in a band back it the late seventies/early eighties. I had a one niter with your wife. She was a fine piece of ass that I enjoyed several times that night. Rumor had it that she occasionally took several guys at once and she sucked cock really well. I would have loved to have found out. A couple of days later she made sure my fiancée found out. She dumped me and then had an abortion. We have since patched things up and gotten married, but she can't have any children. I blame your wife for that. The time is now right for payback. I hope to see your wife miserable the next time I am in the area.

I ran into your wife back in September at Gabriel Brothers. I almost didn't recognize her with her dyed hair. I have been following her around hoping she would mess up. On October 6, I followed your wife over to Capitol City Mall. She was dressed up more the usual for a Saturday of shopping. She went into the Picture People. This was around 10 AM. A couple of weeks later I went in and got copies of the pictures enclosed. On the negative holder she had written that the photo was a gift. There was no indication of which one she had printed up.

I ask you who was it for? Also she does not have her wedding ring on. Why not? A red rose is a symbol of love. For who? I don't think you know about these. Do you? Also she has purchased a lot of sexy bras and panties. Have you seen them or the red nightie? Were they brought for your enjoyment? You may also want to ask her about her Spencer Gift purchases. Do you love lubes with her? So you see once a slut always a slut.

## Stalker Letter

Here is the proof that your wife is a slut. Do what you will with it. Sorry it took so long. I only come occasionally back to the area on business. Merry Xmas. I will send you several copies of this so you get the information in case the slut intercepts one. Before I tell you how I got it, I want to tell you a little about myself. I played in a band back in the late seventies/early eighties. I had a one niter with your wife. She was a fine piece of ass that I enjoyed several times that night. Rumor had it that she occasionally took several guys at once and she sucked cock really well. I would have loved to have found out. A couple of days later she made sure my fiancée found out. She dumped me and then had an abortion. We have since patched things up and gotten married, but she can't have any children. I blame your wife for that. The time is now right for payback. I hope to see your wife miserable the next time I am in the area.

I ran into your wife back in September at Gabriel Brothers. I almost didn't recognize her with her dyed hair. I have been following her around hoping she would mess up. On October 6, I followed your wife over to Capitol City Mall. She was dressed up more the usual for a Saturday of shopping. She went into the Picture People. This was around 10 a.m. A couple of weeks later I went in and got copies of the pictures enclosed. On the negative holder she had written that the photo was a gift. There was no indication of which one she had printed up.

I ask you who was it for? Also she does not have her wedding ring on. Why not? A red rose is a symbol of love. For who? I don't think you know about these. Do you? Also she has purchased a lot of sexy bras and panties. Have you seen them or the red nightie? Were they brought for your enjoyment? You may also want to ask her about her Spencer Gift purchases. Do you love lubes with her? So you see once a slut always a slut.

## Serial Killer Letter

I killed Charlene Hummert, not her husband. We had an affair for the past nine months. She wanted to break it off. So I broke her neck! I wrote letters to her husband and to Det. Loper [the lead detective].

I used a white nylon rope to kill her they won't find me I am leaving. I am writing because of Easter. I am sorry I killed her.
They won't find the cell phone she used to call me, it is in the river and not under my name.
I carried her into the kitchen and then dragged her outside to her car. This is the fifth woman I killed. I am getting good at it.
Cops have no idea how easy it is to pin husband when they only look there.
She knew about pictures on PC. She told story to set up husband for the Divorce. Ha Ha
ByeBye for now
John

What can an analyst find in these letters that responds to the question from the police? Remember, as we saw in the *devil strip* ransom note, the writer(s) may well have attempted to disguise their language patterns. Thus, the most important advice here is not to take anything in the document at face value—neither the content, nor the language used in the document. It is safe to assume that if writers do not sign their real names at the bottom of a document then they likely do not want to be identified. One must always **beware of disinformation**. I have used these two letters for training purposes many times, and it is common for people to start analyzing the different psychological underpinnings of the authors. But none of the content in these letters can be assumed to be true.

As we have seen, disinformation on demographic features such as education level or dialect may be revealed in their *inconsistent patterns*. That is, unless one is a trained linguist—and even then—**it is difficult to assume a false linguistic identity**. It is difficult to alter all systems of language together and to the same degree. There are simply too many systems and details to keep track of. We saw this in the devil strip case, where the reader dumbed down his spelling, but not his punctuation.

These two letters have many surface differences. The writer of the stalker letter gives evidence of being more educated than the author of the serial killer letter. There are ungrammatical and other peculiarities in the second letter. But we must remember the circumstances of the writing of both letters. What were their immediate goals? The stalker letter intended to embarrass,

reveal secrets, and cause havoc. The serial killer letter intended to do something else, even though, like the first letter, it tells a story of Charlene Hummert's alleged infidelities. It begins, "I killed Charlene Hummert, not her husband," and ends, "Cops have no idea how easy it is to pin husband when they only look there…She knew about pictures on PC. She told story to set up husband for the Divorce." It is clearly stating that the police are wrong to suspect the person who, by this stage of the investigation was their prime suspect, and, although Dr. Wald and I did not know it, was already in custody. That was Charlene's husband, Brian.

Without going into explanations of the more technical terms, here is a nonexhaustive list of some linguistic investigative features that we might use in such a case to demographically profile and also to compare the two letters for possible common authorship:

- choice of words or syntax that may indicate dialect, or underlying native language;
- grammar, e.g., clause embedding, preposition usage, discourse markers, "that" complementizer deletion;
- patterns of usage and nonstandard punctuation;
- management of narrative time structures, and how departures from the narrative sequence (flashbacks, flash-forwards, asides) are handled;
- word choice;
- mechanics of register type, e.g., letter, ransom note, detective novel; formality level;
- style mechanics, e.g., parallel structures.

As noted before, it is important always to be aware of possible disinformation, including what I term *masking* and *masquerade*. Masking is simply attempting to mask one's own normal usage, as we saw in the dumbing down of the author of the devil strip note. To masquerade is more focused, disguising one's normal language patterns in an attempt to assume a particular false identity. This is attempting to write in the voice or style of someone else. We commonly see this, for example, in analyzing the circumstances of changed wills: someone attempts to mimic the

language of a terminally ill person and writes instructions to change the will to leave everything to them or a crony.

A variant of masquerade is what we see in the serial killer letter, and to analyze this type of document we use what I call *template analysis*. It essentially means discerning what template the author is using to assume a false identity—here "serial killer"—purposefully putting that to one side, and paying special attention to what remains. Doing so here gives us, for example, a reference to a computer as a *PC*. Especially in 2004, who would refer to a computer as a PC? Perhaps someone who worked with computers, rather than a member of the general public. And, indeed, Brian Hummert, the chief suspect, was a computer technician for the State Police.

Analysis showed that for all the surface differences, the letters bore a remarkable similarity. They were of course both in English, and they were in a quite similar dialect—there were no examples, for instance, of obvious nonstandard dialect, surprisingly for the apparently poorly composed serial killer letter, written in clumsy handwriting and dumbed down by leaving out some words. They both demonstrated the author's ability to structure a narrative with competence, as evidenced by a seamless execution of time shifts. If we follow the time sequences in the letters, we find they effortlessly flash back, and flash forward, and step out of the narrative time flow to add information—all in a way that reads naturally and is unobvious. Like the excellent punctuation of the devil strip letter, this belies the apparent unsophistication of the second letter.

Our analysis revealed information that the investigators already had suspected but did not have scientific evidence to support, namely that both letters had been written by the same person, in this case, Brian Hummert. And although the similarities just described may have narrowed down the suspect pool of likely letter writers, and did not reveal any meaningful inconsistencies between the letters, still this was not sufficient to obtain a search warrant. The police sought an examination of all the available known documents of the chief suspect, yet the similarities thus far described did not necessarily establish that a

single person probably authored both. But in the letters we also noticed an odd pattern of repetition: *found out* and *found out*; *break* and *broke*:

## Stalker Letter

> Rumor had it that she occasionally took several guys at once and she sucked cock really well. I would have loved to have **found out**. A couple of days later she made sure my fiancée **found out**. She dumped me and then had an abortion.

## Serial-Killer Letter

> I killed Charlene Hummert, not her husband. We had an affair for the past nine months. She wanted to **break** it off. So I **broke** her neck! I wrote letters to her husband and to Det. Loper.

This device consists of repeating the same verb in two consecutive sentences in a passage but changing the context of use in such a way as to express irony and cruel humor. In the first letter the writer repeats the verb but shifts the subject from *I* (the writer) to *she* (the victim), and in the second letter from *she* (the victim) to *I* (the writer). He shifts the complement of *find out* from "hypothetical sex acts" to "having had an affair," and he shifts the complement of *break/broke* from *the affair* to *her neck*.

This is quite a precise rhetorical device, and in both letters is highly similar in structure and effect. There has existed a vast scholarship on rhetorical devices for many centuries. I researched whether this device, which we termed "ironic repetition," was a common device. It was of course possible that it was, and that just by chance two different writers might have chosen to use it. Unlikely, but I have seen writers accused of plagiarism when all they actually did was use the same device used by earlier works. A good example of this is the *chiasmus* device of President John F. Kennedy's famous "…ask not what your country can do for you; ask what you can do for your country." Its similarity to others' earlier speeches led to accusations of plagiarism leveled at JFK.

I discovered that the ironic repetition device was not common. I could not find a description

that matched it, and I eventually asked the curator of the massive online encyclopedia of rhetoric, the "Silva Rhetoricae" (rhetoric.byu.edu) hosted by Brigham Young University; he was unfamiliar with it, did not have a name for it, and said that it might best be classified within a general category of repetitive devices called *ploce*.

I explain the rhetorical device in detail here because it illustrates an important, if ultimately obvious, principle: the rarer the features, the more indicative they are of either a particular language variety (e.g., narrowing the suspect pool because someone uses a technical term of a group of specialists who are the only users of the term) or of a particular writer (the "ironic repetition" in this case). How likely was it that this uncommon rhetorical device just happened to be chosen by two different authors, both of whom supposedly had affairs with, and wrote letters about, Mrs. Hummert, and on either side of the time of her murder? Not very likely. It was certainly not unreasonable to think that a single person might have written both letters. Put another way, which was the superior hypothesis? Random chance, or single author?

A judge granted a search warrant, and we compared samples from Mr. Hummert's known writing to the writing of the questioned documents—the stalker and serial killer letters. The samples were workplace e-mails, handwritten writings from Hummert's workplace, and Hummert's legal notes and complaints, etc. while he was in custody in prison. Unknown to us, he had already been arrested and incarcerated. We didn't expect to find rhetorical devices like ironic repetition in such writings, and we did not. But we did find something else quite noteworthy.

All the documents shared not just a tendency, but a categorical skewing in the patterning of contracted verbs. Certain verbs can contract in various types of speech and writing, so that *I am, she is,* and *you did not* can contract to *I'm, she's,* and *you didn't*. But in the Brian Hummert documents, while negative verbs were sometimes contracted, positive verbs never were. That is, *did not* sometimes became *didn't* but *I am* never contracted to *I'm*. As the chart below shows, not one of the 74 positive verbs in the known writings

was contracted, and not one of the 23 positive verbs in the stalker and serial killer letters was contracted.

| Known Hummert | Contracted | Non-contracted |
| --- | --- | --- |
| Negative | 15 (e.g., *didn't*) | 25 (e.g., *did not*) |
| Positive | **0** (e.g., *I'm*) | 74 (e.g., *I am*) |

| Questioned—Stalker and serial killer letters | Contracted | Non-contracted |
| --- | --- | --- |
| Negative | 6 (e.g., *didn't*) | 2 (e.g., *did not*) |
| Positive | **0** (e.g., *I'm*) | 23 (e.g., *I am*) |

Such an extreme skewing suggested a personal idiosyncrasy. Although we had never seen this precise skewing before, to gauge this pattern's actual uniqueness we needed to compare it to a base rate from a reference data set. I studied the contraction patterns in letters to the editor to the local York, Pennsylvania, newspaper, on the assumption that they were the most local and least edited and publicly obtainable writings. Indeed, there was no indication that writers in York had a pronounced tendency to avoid positive contractions. Had that been the case—were it a regional tendency—we might unwittingly only be narrowing the suspect pool down to "writers in York, PA." We derived large reference databases through Google Web and Google Scholar and also found that this contraction/noncontraction skewed pattern shared by both the known and questioned writings was not one that matched up to any reference databases we could access or construct.

Below are examples from two transcribed e-mails written by Hummert, similar to slides I walked the jury through. Note that the one negative (boldface) is contracted—"do not" becomes "don't." Positives (italics), on the other hand, are never contracted—for example, "I am" never becomes "I'm."

From: Hummert, Brian D
Sent: Friday, September 24, 2004 2:54 PM
To: [Redacted]
Subject: Dental Appointment
[Redacted],
I have a Dental appointment on Monday morning. I **don't** know if *I will* come in before I go or not. *I will* fill out a leave slip when *I am* in after the appointment.
Brian

**From**: Hummert, Brian D
**Sent**: Thursday, May 06, 2004 8:11 AM
**To**: [Redacted]
**Subject**: How goes.
[Redacted]
How goes it over there?
PFA second phase is in and working well after a few minor glitches. *I am* currently working on the Premium time reporting system. *It is* using SAP extract files to replace CMIC files and half the data is missing or wrong. What fun. I guess *I will* be over here until they clear me. This is an in house vacation. No on call, no CLEAN.
Brian

Notice the same pattern in the stalker letter, and the serial killer letter. Negatives (boldfaced) are sometimes contracted—e.g., in one case, "did not" becomes "didn't"; in another, "does not" is not contracted. Notably, positives (italics) are never contracted.

> *Here is* the proof that your *wife is* a slut. Do what you will with it. Sorry it took so long. I only come occasionally back to the area on business. Merry Xmas. *I will* send you several copies of this so you get the information in case the slut intercepts one. Before I tell you how I got it, I want to tell you a little about myself. I played in a band back in the late seventies/early eighties. I had a one niter with your wife. She was a fine piece of ass that I enjoyed several times that night. Rumor had it that she occasionally took several guys at once and she sucked cock really well. *I would* have loved to have found out. A couple of days later she made sure my fiancée found out. She dumped me and then had an abortion. *We have* since patched things up and gotten married, but she **can't** have any children. I blame your wife for that. The time is now right for payback. I hope to see your wife miserable the next time *I am* in the area.
> I ran into your wife back in September at Gabriel Brothers. I almost **didn't** recognize her with her dyed hair. *I have been* following her around hoping *she would* mess up. On October 6, I followed your wife over to Capitol City Mall. She was dressed up more the usual for a Saturday of shopping. She went into the Picture People. This was around 10 AM. A couple of weeks later I went in and got copies of the pictures enclosed. On the negative holder *she had* written that the photo was a gift. There was no indication of which one she had printed up.
> I ask you who was it for? Also she **does not** have her wedding ring on. Why not? A red rose is a symbol of love. For who? I **don't** think you know about these. Do you? Also *she has* purchased a lot of sexy bras and panties. Have you seen them or the red nightie? Were they brought for your enjoyment? You may also want to ask her about her Spencer Gift purchases. Do you love lubes with her? So you see once a slut always a slut.
> I killed Charlene Hummert, not her husband. We had an affair for the past nine months. She wanted to break it off. So I broke her neck! I wrote letters to her husband and to Det. Loper.
> I used a white nylon rope to kill her they **won't** find me *I am* leaving. *I am* writing because of Easter. *I am* sorry I killed her.
> They **won't** find the cell phone she used to call me, *it is* in the river and not under my name.
> I carried her into the kitchen and then dragged her outside to her car. This is the fifth woman I killed. *I am* getting good at it.
> Cops have no idea how easy it is to pin husband when they only look there.
> She knew about pictures on PC. She told story to set up husband for the Divorce. Ha Ha
> ByeBye for now
> John

Experts from several other forensic disciplines also testified. Hummert was ultimately found guilty of first-degree murder, and was sentenced to life in prison without parole.

## Forensic Linguistics' Foundation Is Linguistic Theory Derived from Language Use in the Real World

It may appear at first that forensic linguists could do what they need to do without ever leaving the office, and on one level that is true. But the training and experience of linguists like Dr. Shuy, Dr. Wald, or myself, is that of sociolinguistic field researchers, collecting and analyzing the actual language that speakers and writers use, and analyzing how, out in the real world, language systematically varies in different interactional contexts. Many forensic linguists were trained in linguistic variation and analysis by initiating and recording interviews on street corners, in living rooms, in the East African savannah, on Swahili sailing *dhows*, and in bars, in language communities all over the world—from Harlem and Detroit and London to Bangkok and Mombasa—and who then used this firsthand data to build data banks and construct theories of how language works in the real world. (This is in contrast to the far more numerous

purely theoretical grammarian linguists, for whom the intuitions of native speakers about sentence acceptability serve as the primary data.)

From experience with the kinds of language that real speakers actually use to communicate, we promulgate theoretical constructs that can explain linguistic variation; the demographic profiling and authorship cases revolve around understanding such linguistic variation. In such cases we search for constellations of features. Just as a dialect can be described by a collocation of concurrent linguistic features, a linguist can conduct detailed, multilevel linguistic analyses on the language in written documents or speech samples, and weigh whether or not the evidence supports the hypothesis that the linguistic patterns in that document can best be explained as instances of the linguistic patterns found in the various subjects' known samples.

The growth of the field of *corpus linguistics* enhances our ability to utilize large, more targeted databases for reference and analysis. Current corpora include the 450-million-word Corpus of Contemporary American English (COCA), the 100-million-word British National Corpus (BNC), and the 1.9-billion-word Corpus of Global Web-Based English (GloWbE). For example, in a recent case, we explored the rarity of certain words followed by a comma, used to begin a sentence. For example, "Secondarily, if payment is not made …". Using *secondarily* was a feature found in the questioned document, and in the known writings of just one subject. The other subjects used *secondly* and *second.* The corpora show, clearly, that this *secondarily* usage is quite rare, compared to its alternatives; it was an important feature in the analysis.

| | | ALL GloWbE | US GloWbE (per million) | GB GloWbE (per million) | COCA (per million) | BNC (per million) |
|---|---|---|---|---|---|---|
| 1 | SECOND | 13117 | 11.07 | 5.48 | 15.30 | 13.15 |
| 2 | SECONDLY | 11998 | 4.16 | 6.67 | 3.17 | 16.05 |
| 3 | **SECONDARILY** | **43** | 0.05 | 0.02 | 0.05 | 0 |

In the investigation of the 2009 Coleman homicides, the CTAD, a corpus originated by SSA Jim Fitzgerald of the FBI's Behavioral Analysis Unit, proved invaluable. As I wrote:

> Death threat letters and emails sent prior to the murder, and spray-painted words on the walls and a victim at the murder scene all began…with the same obscenity. I had been hired by the FBI Behavioral Analysis Unit (BAU) some years before to analyze and advise on their Communicated Threat Assessment Database (CTAD), a "computerized database/software program designed to be the primary repository for all communicated threats and other criminally oriented communications" within the FBI (Fitzgerald, 2007, p. 6). I thought a CTAD search of that usage would be useful, and asked that one be done. Corpus linguistic analysis showed the use of these obscene words to begin a threat to be extremely rare in CTAD's database, and thus they were a noteworthy pattern linking the utterances together. I also found other language features that linked together the threats and spray-painted words. (Leonard, 2017)

## Conclusion

Forensic linguistics may be seen as an intelligence gathering methodology. It is applicable to a wide range of cases and situations. As we have discussed in the kidnapping and murder cases above, forensic linguists help investigators and triers of fact to extract maximum intelligence from language evidence such as letters, e-mails, notes, texts, wills, confessions, and recorded speech. This scientific language analysis can assist in criminal investigations, threat assessment, counterterrorism, fraud detection, company-internal sabotage, and many other areas of forensic interest that involve the use of language.

This introduction has discussed some methodologies that have been accepted in courts in the USA, the UK, and many other countries.

Acceptance in the courts is growing (in the past several years, I, for instance, have been qualified to testify in courts in 12 US states and five federal district courts. I have also testified as a linguistic expert before World Bank ICSID Tribunals in Washington, DC, and Paris). The field is growing, with undergraduate and graduate training becoming increasingly more available and with more scientific journals dedicated to the field.

Linguistics may stand alone in the forensic sciences in that after forensic linguists present their analysis, non-linguists often indicate that the analysis is obvious and self-evidently true—even if, before the analysis was presented, they could not predict what it would show. Lay users certainly know the structure of their language, but it is largely an unconscious knowledge; scientific research in linguistics seeks to make those structures explicit, and training in linguistics teaches linguists what to expect when they analyze language evidence. To illustrate this, a useful analogy might be to medical experts who read X-ray films. Although we untrained viewers can certainly see the X-ray films, we can't tell what their significance is; the trained medical experts can. Similarly, linguistic experts describe and define the underlying structure of written and spoken language. Both sets of experts can do their jobs because they are trained and skilled in what to look for as they assess the meanings and implications discoverable in their observations.

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# Investigative Interviewing

Ronald P. Fisher and R. Edward Geiselman

## Introduction

If you watch enough television programs about police investigations, you will come to believe that crimes are solved by handsome or beautiful detectives who rely on high-tech equipment to analyze arcane, physical clues: footprints extracted from mud, frayed pieces of clothing, cigarette burns on flesh, handwritten ransom notes, etc. To those more familiar with actual police work, investigations are not nearly so sexy. In fact, most crimes are solved because cooperative victims and witnesses volunteer detailed descriptions when interviewed by police. As such, the police interview is probably the most important investigative tool possessed by law enforcement, and accordingly the focus of this chapter. More specifically, we address here two critical goals of police interviews: To gather extensive and accurate information, and to assess the veracity of the respondent. The bulk of this chapter describes the Cognitive Interview (CI) method of interviewing witnesses to elicit extensive and accurate information. A secondary goal of the chapter is to address the recent research on interview procedures to detect deception.

Although we write in the language of police investigations, the interviewing and deception principles we describe can and have been adapted easily to other kinds of investigative contexts, including national security (e.g., interviewing detainees/informants), the military (e.g., debriefing soldiers), or accident investigations (e.g., debriefing pilots after air mishaps or accident victims after industrial accidents). Moreover, although we couch this chapter in terms of interviewing cooperative witnesses, many of the same principles also hold for interviewing uncooperative people. Finally, when we use the term "witness" we refer both to observers or victims—anyone who has relevant information about critical events or sought-for knowledge.

## Interviewing to Gather Information from Cooperative Witnesses

Given the central role that the interview plays in solving crime, it is surprising to see how little training is typically provided to law enforcement on interviewing cooperative witnesses. Recent surveys show that police training academies either omit the topic completely or provide only

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minimal coverage (Molinaro, Fisher, Mosser, Satin, & Robertson, 2017). Instead, police are expected to learn this critical skill either by trial and error or by observing senior police officers conducting such interviews—whether the senior officer is good or poor at this task (Fisher, Geiselman, & Raymond, 1987). We were not surprised, then, given the lack of formal training on interviewing cooperative witnesses, that police interviewers often make avoidable errors that cause witnesses either to provide less information than is potentially available or to describe events incorrectly (see Fisher et al. (1987) for a description of typical police interview procedures).

In response to the void in this critical, yet understudied, area of police work, we set out to develop an interviewing protocol that was based on the science of cognitive psychology (mental activities, including perception, memory, decision-making, and communication), and hence the name "Cognitive Interview (CI)." In addition to reading the formal scientific literature, we listened to dozens of tape-recorded police interviews with victims and witnesses, modeling the differences between the most and least effective interviewers. We also spoke to several of the most effective police interviewers to learn about their personal strategies of conducting interviews: What were they trying to accomplish during the interview, and what techniques did they use? Finally, we looked at other non-psychology sources of insight, which can be found in books on journalism, oral history, and social work, among others.

In overview, the CI addresses the task of interviewing witnesses along three underlying psychological processes: (a) the social dynamics between the interviewer and the witness, (b) the memory and cognitive processes of both the witness and the interviewer, and (c) communication between the witness and interviewer. Below is a thumbnail sketch of the CI; for a complete description of the CI, see Fisher and Geiselman (1992).

## Social Dynamics

For an interview to be effective, the interviewer and witness should work together as a team, which means that they must trust each other and be sensitive to each other's needs. Furthermore, the witness needs to actively generate information for the interviewer, and not merely answer the interviewer's questions.

*Rapport.* If witnesses, and especially victims, are expected to describe startling and potentially traumatic experiences to police interviewers, there must be a sense of trust and respect between the witness and interviewer. Interviewers must show concern for the personal experience that witnesses, and especially the victims, have gone through, and be able to relate to them at a personal level, and not merely as sources of investigative facts. Often, police interviewers skip over this critical stage and start gathering crime-relevant details immediately. In so doing, they create the impression that they are not concerned about the victim as a person, but only as a repository of facts. Not surprising, witnesses and victims are not motivated to describe horrendous experiences to uncaring strangers.

*Active witness participation.* Normally, police officers have more social status than do witnesses and victims. As such, witnesses/victims defer to the more authoritative police officer and attempt to be helpful by answering the police officer's questions. Such a question–answer exchange is very inefficient for gathering information from a knowledgeable source, as the witness spends most of the interview waiting—and hence not speaking—for the interviewer to ask the next question. Interviewers should instruct witnesses explicitly about their expected role: To generate rich, detailed narrations rather than merely providing brief answers to the interviewer's questions. Interviewers should then provide the opportunity for witnesses to generate detailed responses by asking primarily open-ended questions (e.g., "Tell me in detail what happened? Describe the car in detail"), rather than asking primarily pointed, closed-ended questions ("What color was the car?"). Of course, closed questions have their place within the interview, but they should be used mainly as a secondary source to fill in the holes still remaining after a witness has provided a detailed narrative in response to open-ended questions. Finally, if witnesses do provide a rich narration, interviewers must be careful not to interrupt witnesses during their narration.

## Memory and Cognition

Witnesses may be asked to remember in detail a complex event (e.g., bank robbery with several robbers and tellers) that occurred several hours or days ago. Doing so requires witnesses to search through their memories efficiently. Interviewers must also think efficiently during the interview, as they must perform several concurrent cognitive tasks: Listening to witnesses, formulating questions, developing hypotheses about the crime, etc. Ensuring that both witnesses and interviewers remember and think efficiently is thus critical for an effective interview.

*Context reinstatement*. People remember an event better when they are interviewed in the same context (e.g., location) as when the event originally occurred (Tulving & Thompson, 1973). That is why taking the witness back to the scene of the crime facilitates memory. To implement this idea, interviewers should either attempt to interview witnesses at the same location as where the crime occurred, or if that is impractical, to instruct witnesses verbally to put themselves back, mentally, into the same context as when the crime occurred.

*Limited capacity*. Everyone, including the witness and the interviewer, has only a limited capacity to process information (Kahneman, 1973). Overloading that capacity, by requiring people to do several things at the same time, or not allowing them to focus their attention, will therefore cause people to make cognitive errors. It is important, therefore, to minimize all sources of distraction (e.g., phone calls) during the interview. Even the mere act of asking questions may disrupt witnesses' thoughts, because they must redirect their attention from searching inwardly through memory to focusing outwardly on the questioner. Asking questions also is burdensome for the interviewer, as it deflects his/her attention away from listening to the witness's response. But how will interviewers elicit information without asking many questions? As we suggested earlier, the interviewer should instruct the witness at the very outset to generate rich, detailed narrations rather than merely answer the interviewer's questions. In support of this goal of conducting a "questionless" interview, we found that

the best interviews (gathered the greatest amount of information) typically contained the fewest questions (Fisher et al., 1987).

## Multiple and Varied Retrieval

Memory retrieval is not a perfectly efficient mechanism, and so witnesses may not exhaust their memories of an event when asked to describe "everything you can remember." How shall the investigator access those stored memories that were not recalled when the witness searched through memory initially? Two general principles are helpful: Multiple retrieval and varied retrieval. If witnesses are asked to search through their memories a second time, they invariably find new recollections (Gilbert & Fisher, 2006; Scrivner & Safer, 1988; Turtle & Yuille, 1994). Even when witnesses have claimed that they have reported everything they experienced, it is likely that they still have additional information in memory (Leins, Fisher, Pludwinsky, Robertson, & Mueller, 2014). Therefore, interviewers should encourage witnesses to search through memory repeatedly, even after having given an initial report. These additional searches through memory will yield more new recollections if witnesses use different methods each time they search through memory (Anderson & Pichert, 1978). This concept of varied retrieval can be implemented, for example, by asking witnesses to describe an event in backward chronological order after they have described the event initially in a forward chronological order (Geiselman & Callot, 1990). Similarly, one can ask a witness, after she has described what she saw, also to think about what she heard. These are just two of the many ways that interviewers can instruct their witnesses to search through memory in a different manner.

## Communication

Communication is a two-way street, with interviewers conveying their investigative needs to witnesses, and witnesses conveying their knowledge of the crime to the interviewer. If communication fails in either direction, the interview will be unsuccessful.

*Interviewer conveys need for detail*. Criminal investigators need to elicit more detail from

witnesses than people are used to, as normal everyday communication is generally superficial ("Hi, how are you?" "Fine, and you?"). If interviewers want witnesses to describe crime events in more detail than they convey in casual conversations, interviewers need to inform witnesses about the level of detail that is appropriate for the interview. One way to accomplish this is for the interviewer to provide an example of what a detailed answer sounds like, so the witness has a model to copy when asked to describe the crime.

*Nonverbal witness responses*. Interviewers often restrict witnesses to give only verbal responses. But some information is not stored verbally, e.g., the layout of a room. In such cases, where the information is stored visually, witnesses could provide better descriptions if they were allowed to draw a sketch of the room. Interviewers should consider other nonverbal methods for witnesses to convey their information (e.g., acting out a movement) and not restrict witnesses to describing events only verbally.

## Testing the Cognitive Interview

More than 100 scientific tests of the CI have been conducted over the past 25–30 years to test its efficacy to gather information (see Fisher, Schreiber Compo, Rivard, & Hirn, 2014, and Geiselman & Fisher, 2014, for reviews). Most of these experiments were conducted in a controlled laboratory environment, but at least three field studies were conducted in real-world criminal investigations. In most of the laboratory-based experiments, volunteer witnesses (typically college students, but the same results are found for non-college people, including young children, law enforcement academy trainees, and the elderly) viewed either a simulated crime shown on a video screen or a live non-crime event (e.g., argument between two people). Shortly after viewing the event, or after a few-days' delay, the witnesses were interviewed either with a CI or with an interview protocol that was similar to a conventional police interview. The typical finding in these experiments is that CI interviews elicited anywhere between 35% and 50% more information than the control, police interview. Moreover, the accuracy rate of the witnesses'

responses (percentage of responses that were correct) was either the same or slightly higher for the CI than the control, police interviews. The "CI effect" is robust in that it holds across a wide variety of events, witnesses, interviewers, and several other procedural variations (see Memon, Meissner, & Fraser, 2010, for a meta-analysis).

The above experiments were all conducted under the pristine conditions of the laboratory, where witnesses' lives were not threatened, and the college student witnesses had good verbal skills. How well do the laboratory-based studies translate to investigations of real-world crimes? In order to answer this question, we set up an experiment with the Metro-Dade (Miami) Police Department (Fisher, Geiselman, & Amador, 1989). Sixteen experienced detectives from the Robbery Division each tape recorded 5–7 interviews of either victims or witnesses of robbery. Approximately half of the detectives were then trained on the CI (in four 2-h-sessions) and the others were not trained on the CI. Those trained in the CI collected 63% more information than those not trained in the CI. Of the seven detectives who were trained in the CI, all but one gathered much more information (34%–115% more) after training than before training. Comparable findings have been reported in field studies conducted in England (Clifford & George, 1996) and in France (Colomb, Ginet, Wright, Demarchi, & Sadler, 2013), where training in the CI led to gathering more information. The Colomb et al. study is particularly important in that it examined mainly violent crimes (e.g., sexual and domestic violence). Furthermore, and we are not sure why, the effectiveness of the CI was greater for victims than witnesses. In all, we have very strong scientific evidence that the CI enhances witness recall across a wide variety of studies, including those that police are likely to investigate in real-world crime.

## Interviewing Police Officers

In the studies we have described thus far, the interviewee was a civilian. What about cases in which the interviewee is a police officer, e.g., when a police officer is either a victim or perhaps a bystander witness? An even more critical

instance entails interviewing police officers after they are involved in a shooting. How well would the CI fare in such an investigation?

The goal of officer-involved shooting investigations is to determine whether the shooter officer's decision to use deadly force was "objectively reasonable under the totality of the circumstances confronting the officer," and thus was both lawful and within department policy (Ross, 2013). In the context of determining the "objective reasonableness" of an officer's use of force, the only facts and circumstances that have any legal relevance are those that were known to that officer at the moment the officer made the decision to use force. The goal of the investigative interviewer should be to obtain a complete and accurate understanding of the involved officer's perception of the circumstances. What did the officer perceive and what were his or her thoughts at the time he or she decided to shoot?

Although we do not have any direct evidence from controlled studies in which police were interviewed after an officer-involved shooting, we can examine separately the two characteristics that make such an investigation unique: (a) the interviewees are police officers, and (b) the event to be remembered is the police officer's thoughts while deciding to shoot. How effective is the CI when (a) the interviewee is a police officer, and (b) the critical event is the interviewee's earlier thoughts?

*Police as witnesses*. The first study we conducted in which law enforcement officers served as the witnesses took place at the Federal Law Enforcement Training Center (FLETC: Rivard, Fisher, Robertson, & Mueller, 2014). Law enforcement personnel (trainees at FLETC) went through a normal training day, and then were interviewed several days later about one of their classroom experiences by a seasoned FLETC staff member who was well versed in both the CI and the 5-Step interview protocol (the standard, recommended protocol at FLETC at that time). When interviewed with a CI, the law enforcement witnesses generated almost 80% more information, and at comparable or slightly higher accuracy, than when interviewed with a 5-Step protocol. (FLETC has since incorporated the CI into their standard interview training.)

In a related study we had just conducted in our lab, college students and police officers watched a video of a simulated crime and then were interviewed by other police officers. These interviews were conducted either before or after the interviewers had received training in the CI. Consistent with all of our other studies, interviewers elicited more information from their witnesses after CI training than before (34% increase), and this held for both students and police officers—although the effect was greater for students (59% increase) than police witnesses (18% increase).

It appears then that the CI is an effective procedure for interviewing police officers. In retrospect, there is no compelling reason to believe that the CI would not also work for police as witnesses, as police officers use the human information processing mechanisms as civilian members of society. Therefore, police should react to the basic factors studied in eyewitness psychology in a similar fashion to the rest of the public (Zimmerman, 2003).

*Memory for earlier decisions*. Whereas most memory studies entail memory about external events, for investigations of officer-involved shootings, we also want to know the police officer's thoughts during the shooting. We have recently conducted three experiments to examine whether a slightly modified version of the CI could effectively elicit information about a person's thought processes when making an earlier decision. In all three studies college students were asked to think aloud, or to discuss aloud with another person, while reasoning through an ethical dilemma (e.g., whether to kill animals in medical research). Either 5 min later or 2 days later, the student decision-makers were interviewed and were asked to describe their earlier thought processes. In the control condition, the interviewer developed rapport with the respondent and then asked him or her to describe their earlier thoughts in as much detail as they could. When the respondent could not recall any more details, the interviewer pressed the respondent to continue trying to think about his or her earlier thoughts. In the CI condition, in addition to the above, control instructions, the interviewer (a) encouraged active witness participation, (b) gave

an example of an ideal response, (c) reinstated context, (d) requested a second narrative and asked follow-up questions, and (e) requested a sketch. In all three experiments, the CI elicited a minimum of 76% more information than the control interview. Accuracy of the recalled thoughts, as evaluated by comparing the respondent's described thoughts with the overt statements we recorded from the original decision-making phase, was extremely high in both conditions.

Whereas the above studies suggest that the CI might be used effectively in investigations of officer-involved shootings, we believe that the CI, as modified appropriately, has the potential to be used in many kinds of investigation, including: debriefing hostages about their earlier capture; gathering information from Air Force pilots about wartime dog-fights with enemy planes; interviewing informants about their knowledge of meetings with terrorists or criminals, and a host of other investigations. We obviously need more empirical evidence to make such claims about applying the CI to such a variety of experiences, but the few studies that we have conducted to simulate such conditions have proven successful, e.g., et al.'s (2014) study on adapting the CI to interview informants about meetings with terrorists.

## CI in Real-World Criminal Investigations

Given that the CI has been available to law enforcement and other investigative agencies for over 30 years, and that it has proven effective, there are numerous real case examples of its use in real-world investigations. Rather than naming the cases individually, we will describe them collectively here. Successful applications fall into a few general categories: Witness/victim interviews immediately following events, witness/victim interviews in cold cases, suspect interviews soon after events, and suspect interviews in cold cases. In a recently concluded investigation, a rape victim was asked to put herself back into the same frame of mind (context reinstatement) as when she experienced the rape. Upon doing so, she recalled that the rap-

ist's wristwatch had a green luminescent dial, a new, unique fact that led to apprehending the rapist. Often, the benefits of the CI are most clearly shown in cold cases, where the witness/victims or suspects have been interviewed on prior occasions using conventional techniques without success. When the CI was administered, the witness/victim frequently recalled crucial details by thinking about the events in new ways, such as, in reverse order. For example, one victim of a rape was asked during her interview to go through the events in reverse order and from a specific perspective. She then recalled that, during the rape, she had been video recorded. When the rapist was apprehended, detectives located his i-Phone, which contained videos that implicated him in the target case—but also several other rapes. Interviews of suspects, after being persuaded to cooperate with authorities, also generated new information when CI techniques were applied. For example, a serial killer was able to reconstruct additional victims and dump locations during an extensive CI, which followed several prior non-CI interviews. The same strengths of the CI that have aided true witness/victims to recall information have also helped investigators in gaining truthful statements from deceptive suspects. Suspects agreeing to participate in CI interviews have wound up saying too much, giving away guilty knowledge. They have also sometimes implicated themselves by experiencing great difficulty in recalling information that should have been relatively easy for a truthful person. In the latter situation, suspects realized that their deception was apparent and then confessed to their crimes.

In one case, the suspect had described his accomplice as someone who appeared much different from his true accomplice (his friend). During the CI, he became engrossed in the recall task such that he began to describe his friend. This led to a confession. In yet another case, the suspect described elements of the crime that could be known only by the true perpetrator of the crime. Admittedly, these are only anecdotes, with all of their attendant limitations; however, they follow the same pattern as found in controlled laboratory studies: The CI uncovers many new facts not previously elicited by an earlier, conventional police interview.

## Police Reactions to the Cognitive Interview

Over the past 30+ years, we have had the privilege of presenting the CI in classes for various policing and other investigative agencies. The verbal and written evaluations have been overwhelmingly positive, with follow up case examples from the participants in virtually every class—not surprising given the 35%–50% increase in formal testing. While few in these classes have heard of the "Cognitive Interview" label prior to the class, a majority of the participants know about several elements of the CI protocol, suggesting that elements from the CI have filtered their way into what is considered good-practice interviewing procedures. During the classes, it has been apparent that the CI can be deceptively easy in first appearance. The first role-play exercise where the participants must apply the full CI does not go as well as the second exercise. In particular, the participants tend to revert back to a question–answer format following the narrative report from their interviewee, which then degenerates into an interviewer-centered interview. This relapse largely corrects itself following a debriefing and second attempt. In addition, the cognitive demands on the interviewer are greatest during the narrative report from the witness, and this requires multiple role plays to become proficient. These demands include attending to the witness's statements, showing interest, taking cursory notes using the witness's words, and developing an evolving follow-up question plan.

The participants in our classes have contributed interesting and useful suggestions for tactics in specific interview situations, often from their own cases in the field. This exchange of ideas has been beneficial and extremely effective as an instructional tool. Similarly, useful suggestions for specific situations were obtained from our interviews of experienced intelligence collectors within the military (Leps & Geiselman, 2014). For example, investigators frequently have expressed a desire for a shortened version of the CI, in addition to the full, more time-consuming CI for detectives. This need already has been addressed by researchers in the academic community (Dando, Wilcock, Milne, & Henry, 2008; Davis, McMahon, & Greenwood, 2005) and there now exists even a self-administered version of the CI (Gabbert, Hope, & Fisher, 2009). Finally, participants in our classes from law enforcement have expressed a desire for developing cost-effective in-house training and/or repeat training. Toward that end, several agencies have developed their own CI training programs and classes (e.g., NTSB, CBP, FLETC, NCIS).

Finally, our experience is that investigators who volunteer for the training and who are motivated to improve their technique gain the most from training, as opposed to those who are "voluntold" by their superiors to attend the training and do so reluctantly. Motivated trainees participate more actively in the training sessions, take the role-playing exercises more seriously, and invariably relate the training to interviews they had conducted in the past and realize how they might have conducted their interviews more effectively. Perhaps the most encouraging feedback we receive is that experienced investigators frequently comment that they wished they had received the training earlier in their careers.

## Instructing Many Police on the Cognitive Interview: Train-the-Trainer

As we reviewed here, research on the CI has yielded very encouraging results in the many controlled laboratory experiments and in the few field studies with real-world crimes. In almost all of these studies, the training was provided by a handful of academic researchers. For training to be successful on a large scale, however, where the goal is to train tens of thousands of police investigators, adequate training cannot be provided by only a few academic researchers. There are simply too few academic researchers who are knowledgeable in the CI and interested to teach thousands of police investigators. Realistically, the only way to train a large number of investigators effectively is for the training to be conducted by official police trainers. There are many police

trainers who: (a) have easy access to police investigators, (b) are motivated to train police investigators, and (c) work within police training academies, which exist for the purpose of training large numbers of police investigators. Can we train police trainers to effectively instruct other police investigators to conduct the CI?

We have recently tested this train-the-trainer methodology in a series of experiments, with all studies conforming to the following three-phase sequence: Phase I: An academic researcher trains law enforcement trainers about the CI; Phase II: The trained trainers instruct other police investigators to use the CI; Phase III: The CI-instructed police conduct interviews with witnesses.

As this was a new venture for us, we conducted the research in stages, gradually approaching the above model, and learning from our mistakes. Thus, for example, when we started the project, our Phase II trainees were college students rather than police investigators. Later in the series of studies, we used law enforcement investigators. Similarly, when we began the project the event that witnesses described was a 5-min segment of a Hollywood crime movie that they watched on a television monitor. Later in the research program, the witnesses participated in a more realistic event: A live, enacted—but simulated—experience (e.g., hostage taking or a robbery) in which they were victims or witnesses.

In Phase I of the research, we instructed experienced law enforcement trainers (FBI and local police departments) in both the elements of the CI and also how to train others to learn the CI (e.g., use of exercises, take-home assignments, demonstrations and video samples). Phase I entailed approximately four 3-h sessions. In Phase II, the law enforcement trainers adapted our Phase I instructions to their own style. In the control (non-CI) condition, other equally experienced law enforcement trainers were asked to devise their own training protocol for interviewing cooperative witnesses, taking into account the specifics of the experiment: Witnesses were college students or police and were fully cooperative. In Phase III, the CI-trained or control-trained interviewers conducted interviews with other people who had witnessed or experienced a simulated crime. In some versions of the experiment, we compared the CI-trained to the control-trained interviewers; in other versions, we compared the interviewers before versus after training in the CI.

Several interesting patterns emerged from this series of experiments (see Molinaro et al., 2017) for a more detailed description of the first study). (a) CI-trained interviewers generally asked fewer questions than the control-trained interviewers (or comparing posttraining to pretraining interviews), and of those questions asked fewer were suggestive; (b) the amount of information gathered by the CI-trained (or posttrained) interviewers was considerably greater than by control-trained (or pretrained) interviewers; and (c) the accuracy of the gathered information was comparable or slightly higher for the CI-trained (or post-trained) interviews than the control-trained (or pretrained) interviews.

We found it interesting that the trainers, some of whom participated in several of the above-mentioned experiments, improved over time. Thus, they provided the CI training much more efficiently in their later training sessions than in their earlier sessions. We assume that such improvement reflected (a) the feedback that we provided the trainers after observing their training sessions and also after we received feedback from the trainees, (b) the trainers modifying their instructions based on their own analysis of what went well and what needed improvement, and (c) in general the trainers becoming more comfortable and confident with the material over time. In overview, the train-the-trainer approach proved to be successful in improving the interviewing skills of experienced police officers, but still needs refining to make maximum use of its potential.

## Interviewing to Detect Deception

Interviewing respondents would be considerably easier if they were always truthful and described what they believed they experienced. The sad reality of life, however, is that many respondents are less than truthful. For these interviews, police

not only need to elicit information but also assess the veracity of the respondent. Is the suspect truthful or not?

How effective are police, or other investigators, to detect deception? Several laboratory studies have been conducted to assess police officers' and others' ability to detect deception. Many of these studies conform to the following procedure. A researcher assigns some people to engage in an activity (e.g., go to a restaurant) and other people not to engage in that activity, but rather to remain in a designated location (e.g., the laboratory). Both people, those who go to the restaurant and those who remain in the laboratory, then are interviewed individually about their recent actions. Both people are instructed to convince the interviewer that they went to the restaurant, those who actually did go to the restaurant (truth-tellers) and those who did not (liars). After the interview, either the interviewer or someone else who watched a videotape of the interview is asked to decide whether the interviewee was truthful or deceptive. People who judge the veracity of the interviewee are remarkably poor at this task. Given that one would be correct by chance 50% of the time, it is discouraging to see that, across a wide variety of experiments, overall performance is approximately 54%, only minimally better than would be correct by flipping a coin (Bond & DePaulo, 2006). Moreover, police are no better than ordinary civilians at detecting deception in these tasks. The only differences between police and ordinary civilians are that (a) police are more likely to label interviewees as liars than are civilians, and (b) police are more confident in their assessments than are civilians (Kassin, Meissner, & Norwick, 2005; Meissner & Kassin, 2002). That is discouraging, and especially if police pride themselves on being able to detect when suspects are lying.

There are several contributing factors to police's poor performance on this laboratory-based task, including: (a) for most experimental respondents this is not a high-stakes situation, and so perhaps they do not express the tell-tale signs that they might if their lives or their freedom depended on convincing the interviewer, as is likely in a real-world criminal investigation (Whelan, Wagstaff, & Weatcroft, 2015), and (b) the police officer has no background information that he or she might use to determine veracity in a real-world criminal investigation (Blair, Levine, & Shaw, 2010). Nevertheless, police decision-makers still perform poorly on this experimental laboratory task, and especially given their high confidence.

One explanation for the poor performance is that police (and others) look for nonverbal signals that they believe will characterize liars (e.g., failure to make direct eye contact, or signs of nervousness), but, in fact, these nonverbal cues do not discriminate between liars and truth-tellers (Geiselman, Musarra, Berezovskaya, Lustig, & Elmgren, 2013; Vrij, Granhag, & Porter, 2010). Can investigators do anything to improve detecting deception? Specifically, given the theme of this chapter, is there anything that can be done by the interviewer to magnify the differences between liars and truth-tellers so that it will be easier to distinguish between the two?

We focus here on the cognitive processes of liars and truth-tellers, and specifically, how their thoughts and strategies differ. We then describe some recent research showing how interviewers can exploit those different thought processes to help distinguish between liars and truth-tellers. Finally, we examine how a CI that has been adapted for interviews with suspects can help reveal a suspect's veracity (for excellent overviews of the scientific literature on detecting deception, see the meta-analysis by DePaulo et al., 2003, comprehensive reviews by Vrij et al., 2010, and Granhag, Vrij, & Verschuere, 2015).

We believe that liars and truth-tellers differ on at least three cognitive dimensions: Compared to telling the truth (or to truth-tellers) (a) lying is more cognitively demanding, (b) liars are more likely to prepare for interviews and to anticipate how police will question them, and (c) liars are more likely to develop and use strategies to deceive police. These strategies include attempting to sound like truth-tellers (or at least how liars think truth-tellers are supposed to sound), providing minimal information to police, and preventing police investigators from disconfirming their story. All of these differences can be exploited by theoretically guided interviewing practices to reveal deception.

## Lying Is Cognitively Demanding

Liars are likely to engage in many more cognitive tasks than truth-tellers, including: (a) suppressing the truth, (b) thinking back to responses given in earlier interviews to ensure that their current responses are consistent, (c) monitoring their hands so that they do not engage in the kinds of nervous behavior that others take as a sign of lying, (d) trying to maintain direct eye contact, as avoiding eye contact will be taken as a sign of deception, (e) monitoring the investigator's face to see if the liar is getting away with the lie, etc. (see Vrij, Fisher, Mann, & Leal, 2008 and Vrij et al., 2010, for more complete lists). Because liars engage in more cognitively demanding tasks than truth-tellers, liars should have fewer mental resources available to conduct the interview. Interviewers can take advantage of this reduction in cognitive resources by imposing additional cognitive load on the suspect, e.g., requesting the suspect to engage in a secondary task while being interviewed, or describing an event in reverse chronological order. Imposing additional cognitive load on suspects has greater debilitating effects on liars than on truth-tellers, and as such, makes it easier for others to discriminate between liars and truth-tellers (Vrij et al., 2008; Vrij et al., 2010).

## Liars Prepare for Interviews

Liars are more likely than truth-tellers to prepare for interviews, because liars want to avoid stumbling during the interview and having to generate answers on the spot. By comparison, truth-tellers do not worry as much about speaking with the investigator, as they just assume that others will believe them (their truth will "shine through": Kassin, 2005). Evidence from a police investigation supports such preinterview preparation (e.g., finding a killer's diary entry in which the killer annotated what he would tell the police: Tedeschini, 2012). In a recent laboratory study, we found that liars engaged (or refrained from engaging) in several behaviors just before they expected to be interviewed as if they were rehearsing their stories. These preinterview behaviors included moving their lips (as if they were talking to themselves), and refraining from looking at interesting materials (e.g., cartoons) because they wanted to concentrate on rehearsing their stories (Cahill, Fisher, & Rivard, 2011).

## Liars' Strategies

In laboratory studies, liars and truth-tellers are sometimes asked to describe their strategies during the interview. Liars generally report using more strategies than truth-tellers (Hartwig, Granhag, & Stromwall, 2007; Leins, Fisher, & Ross, 2013). One such strategy is to keep their stories simple, presumably to avoid providing information that the investigator might use to reveal their deception (Stromwall, Hartwig, & Granhag, 2006). In keeping with this strategy, liars' stories are typically less detailed than truth-tellers' stories (e.g., Vrij & Heaven, 1999; Vrij, Mann, Jundi, Hillman, & Hope, 2014). One interviewing tactic to counter this strategy is to entice suspects to provide an even more detailed story than they normally would. This can be accomplished by an element of the CI, providing an example of a very detailed answer and encouraging suspects to duplicate that information-rich style when they speak. Truth-tellers find this an easy task and generally provide a more detailed answer than usual, whereas liars do not provide additional information when given such a model answer (Leal, Vrij, Warmelink, Vernham, & Fisher, 2015). The failure to provide a detailed response when instructed to do so then becomes a signal that the suspect may be lying.

A second kind of strategy, and not unreasonable, is for liars to present themselves so that they sound like truth-tellers. That is, liars' strategies are based on how they believe truth-tellers sound. If their beliefs are incorrect, however, then their behavior will not match that of real truth-tellers. Two such "miscalculations" are that liars think that truth-tellers are (a) extremely consistent, and (b) do not contradict one another. In fact, however, truth-tellers are not perfectly consistent (e.g., Gilbert & Fisher, 2006), and they do contradict one another periodically. In one such

laboratory study (Fisher, Pludwinski, & Leins, 2016), we asked truth-telling participants to engage in a 10-min activity (e.g., go to the bookstore and check out the prices of specific items). Upon returning to the laboratory, we tape recorded the participants giving a detailed narration of their trip to the bookstore. One week later, the truth-tellers returned and listened to their earlier tape-recorded narrative, with the instruction that if the earlier tape-recording reminded them of something they had forgotten to include, they should tell the interviewer of this newly remembered action. In keeping with the finding from many memory experiments, (truthful) people almost always remember some new events that they failed to report initially, and so the truth-tellers indicated several things that they did not include in their earlier tape-recorded narrative. By comparison, when liars listened to their earlier-recorded narrative (of a fabricated trip to the bookstore), they typically claimed that it was complete and that they could not provide any additional information.

Another version of this miscalculation by liars entailed interviewing a pair of suspects at the same time (Vrij et al., 2012). Truth-telling and lying pairs of suspects were asked to describe their earlier activity. When the truth-tellers described their activity, naturally each person had a slightly different recollection, and as such, they added information to what the other member of the group said, and periodically interrupted and corrected the other person. By comparison, when the liars described the event, they generally refrained from interrupting and correcting one another or adding new information. Presumably this reflected the mistaken belief held by many, including liars, that truth-tellers remember everything and do not correct one another.

A third kind of strategy adopted by liars, and again not unreasonable, is for them to refrain from providing statements that investigators can verify. Liars are in a bind in that, if they say too little, this will be interpreted as intentionally withholding information, which will be viewed as a sign of deception. However, if they provide a lot of information, the investigator may be able to check the elements of their statement and show them to be false. One potential solution is for liars to provide many statements, so it sounds like they are forthcoming, but to avoid providing statements that can be verified. For instance, when asked to account for his whereabouts last Saturday night, when a crime occurred, a liar might say something like: "I had a bad headache [which cannot be checked], and so I lay down on the couch [which cannot be checked], and a few minutes later, I started to feel better [which cannot be checked] and so I walked into my kitchen [which cannot be checked] and …" When examined experimentally, in fact, liars did make more unverifiable statements than did truth-tellers (Nahari, Vrij, & Fisher, 2014a). This clue to deception turns out to be very convenient for police investigators, because it allows them to make inferences about the suspect's veracity without having to expend resources to check out the suspect's story. All the investigator has to do is decide if it is *possible* to verify the suspect's story. If not, this may be an indication of deception. More important from the perspective of the investigator-as-interviewer, informing the suspect that the investigator will attempt to verify the suspect's story magnifies the difference between liars and truth-tellers, because truth-tellers will provide more verifiable statements (e.g., "I was at the S&T delicatessen and ordered a corned beef sandwich; you can ask the waiter, Harold; he's a tall guy, with short, brown hair, about 35 years old; he can corroborate my story."). By comparison, the liars cannot provide such verifiable facts. One of the benefits of this approach is that even if suspects can anticipate this investigative strategy, they can do little to develop a counter-strategy (Nahari, Vrij, & Fisher, 2014b).

## Detecting Deception with the CI

Thus far, we have focused on two seemingly disparate themes: The CI as a general investigative tool for interviewing cooperative witnesses, and various techniques to detect deception. What happens when we incorporate these deception-detection techniques into the CI, a CI for suspects (CIS: Geiselman, 2012).

The CIS allows for a nonjudgmental approach to interviewing suspects in situations where it is not yet clear whether the suspect will be honest or deceptive during the interview (Kassin, Goldstein, & Savitsky, 2003). The same principles that drive the memory-enhancement and communications aspects of the CI for cooperative victims and eyewitnesses are at work in the CIS. The suspect is encouraged to generate large amounts of information before any challenge is made. This allows for a greater opportunity to observe inconsistent statements and guilty knowledge as well as any changes in demeanor from baseline (as observed during the rapport stage) should they occur. This approach reduces the likelihood that the investigator will challenge the suspect prematurely based on any confirmatory bias (Hill, Memon, & McGeorge, 2008; Kassin, Dror, & Kukucka, 2013).

The CIS also employs two techniques from the regular CI by asking for information in ways that are unanticipated by the suspect, namely drawing/sketching the story and retelling the story in reverse chronological order. The sketch and reverse-recall elements of the CIS provide an opportunity to observe the suspect's performance while carrying out these unexpected tasks with further elevated levels of cognitive load (McCormack et al., 2009; Vrij et al., 2010).

In the first empirical test of the CIS, six trained interviewers conducted interviews with 20 participants who were instructed to describe a recent autobiographical event and also separately to describe a completely fabricated autobiographical event (Geiselman, 2012). The stakes in this preliminary study were relatively low in that the participants could win fifty dollars if they convinced the interviewer that they were telling the truth, and they stood to lose 50 dollars if they failed. The interviewers rated the likelihood of the participants' truthfulness at each of the first six stages of the CIS protocol. The results showed that the interviewers were only slightly better than chance at assessing deception following the narrative stage (consistent with past research on detecting deception: Vrij et al., 2010), but increased accuracy systematically throughout the remainder of the CIS to an *almost perfect* level of discriminability (94%). These findings provide an encouraging initial demonstration of the potential of the CIS protocol for assessing the likelihood of deception during investigative interviews. Other researchers have replicated and extended these findings using similar rapport-development, information-gathering protocols during the past few years (HIG Report, 2016; Levine et al., 2014; Morgan, Colwell, & Hazlett, 2011; Vrij & Granhag, 2012).

## Summary

In summary, it appears that there is much potential, and in some cases beneficial effects in specific criminal investigations, in applying theories of cognitive psychology to interviewing witnesses and suspects. When implemented with cooperative witnesses and victims, the CI leads reliably to gathering more information, and when implemented with suspects, the CIS allows for better discrimination between liars and truth-tellers.

Although it appears that interviewing cooperative witnesses and interrogating suspects are completely different, in fact, many of the techniques that help to elicit additional information when interviewing cooperative witnesses also are effective when interrogating suspects. Included in this list of doubly effective techniques, are (a) developing rapport, (b) drawing sketches, (c) asking people to recall information in backward chronological order, (d) asking mainly open-ended questions, and (e) providing respondents with an ideal (detailed) response. Some interviewing strategies, however, may be valuable when interrogating suspects, but have harmful effects when interviewing cooperative witnesses. For example, imposing cognitive load, which helps to detect deception, as it is particularly demanding on liars, is likely to impair eliciting information from cooperative witnesses, as it also impairs truth-tellers' ability to concentrate.

## Applying Laboratory-Based Research to Real-World Investigations

If the lab-based research is going to be used in real-world criminal investigations, there must be close working relations between the academic researchers and the law enforcement practitioners (Leps & Geiselman, 2014). Both groups of contributors have much to learn from each other, as each approaches the problem from a different perspective and has different skill sets. Academic researchers have a better understanding of the underlying psychological principles and how to conduct laboratory research; law enforcement practitioners have greater insights about witnesses' and suspects' reluctance to volunteer information in real-world settings, and interviewing tactics that work in criminal settings but do not fit neatly into conventional scientific principles. Clearly, if the two sides, the researchers and practitioners, work cooperatively with one another, they will profit from the new opportunities. Academic researchers will be exposed to situations not normally available to them because of ethical constraints on their laboratory studies, and practitioners will be able to isolate specific interviewing tactics within an experimentally controlled setting.

Taking full advantage of what each group has to offer will yield better research, as academics will have the benefit of police practitioners to help design research studies that capture more of the essence of a real-world investigation. It should also allow practitioners to add new theory-based interviewing tools to their arsenal of crime-fighting techniques. In order to take full advantage of such a symbiotic relationship, we should encourage (a) academic researchers to work with law enforcement practitioners when initially designing research projects, and (b) law enforcement practitioners to consult with academic researchers during investigations. We hereby invite practitioners and researchers to join forces to work toward a common goal: Understanding and solving criminal investigations through more effective interviewing.

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# Criminal Interview and Interrogation in Serious Crime Investigations

Blake McConnell

Confessions may be the most pursued form of evidence in criminal investigations. US courts and legal experts have acknowledged, and mock jury studies have affirmed, that confessions have more influence over the outcomes of criminal prosecutions than any other type of evidence (Appleby, Hasel, & Kassin, 2011; Colorado v. Connelly, 1986; Kassin & Sukel, 1997; Miranda v. Arizona, 1966). A majority of criminal cases are solved as a result of confessions made to law enforcement officers (Leo, 2008). This is why interview and interrogation skills are critical to criminal investigative strategies. In one of the most influential studies of law enforcement interrogations in the USA, Leo found that confessing defendants were more likely than non-confessing defendants to accept guilty pleas and forego their rights to a formal trial (Leo, 1996). Reliable confessions advance investigative objectives, save resources, mitigate defense strategies, and profoundly minimize the potential that personal crime victims are "revictimized" when forced to relive their traumatic experiences at trial.

Confessions from criminal suspects are rarely spontaneous and are typically gained by law enforcement officers strategically controlling and directing psychological pressure during questioning (Leo, 2008). Individuals involved in the most serious of crimes such as assault, rape, murder, child abduction, and armed robbery are often the least inclined to confess their actions due to their exposure to harsh punishments and associated stigmas. This chapter discusses how interview and interrogation techniques are used by US law enforcement with an emphasis on their application in serious criminal investigations[1].

When law enforcement investigators question criminal suspects for the purpose of obtaining their accounts, they are conducting interviews. But once investigators use lines of questioning that incorporate accusatory dialogue and persuasive techniques designed to elicit incriminating information from guilty suspects, investigators are conducting interrogations. The study and practice of suspect questioning is sometimes referred to as "interview and interrogation" because these two processes are frequently used together. The theory is that investigators will interview suspects and then, should a suspect appear to be deceptive, transition to an interrogation. But interviews are not always followed by interrogations, even when they were planned that way. Interrogations are sometimes deemed unnecessary, premature, or otherwise problematic after suspects have been interviewed. For example, a

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[1]To avoid the distracting use of alternating or awkwardly pluralized pronouns, criminal suspects sometimes will be referred to using the generic masculine since most serious crime offenders are men.

suspect may provide an alibi that sounds plausible and needs to be investigated before an interrogation is initiated.

Because interrogations are rarely conducted with absolute certainty of a suspect's guilt, this chapter will refer to suspects as either guilty (a correct suspicion) or innocent (an incorrect suspicion). It might not seem unusual for innocent suspects to agree to speak with investigators since they have nothing to hide. But the casual observer may wonder why guilty suspects, who are attempting to hide their involvement a particular crime, would ever agree to be interviewed by investigators. There are generally two reasons for this. First, guilty suspects agree to speak with investigators to appear innocent (Kassin & Norwick, 2004). Second, guilty suspects may want to discover the evidence against them to determine if, when, and how they can lie. This can be seen when guilty suspects probe for information concerning the evidence against them before committing to any details of their accounts. For example, guilty suspects may ask who else has been interviewed, how long the investigators have been working on the case, or why they are being interviewed even when they should already understand this. Innocent and guilty suspects alike want to know why they are being questioned, but guilty suspects tend to be less demanding because they want to maintain a cordial relationship with investigators who hold the information they badly need.

Given that both guilty and innocent suspects are inclined to speak with investigators, it should come as no surprise that approximately 80% of criminal suspects who are questioned in police custody waive their constitutional rights to remain silent and to seek assistance of counsel (Thomas & Leo, 2012). Certain categories of suspects that are more likely to be questioned in serious crime investigations are expected to be less agreeable when asked to speak with investigators. For example, suspects who have previously been arrested for felony offenses are significantly less likely to waive their rights when compared to suspects with no felony arrests (Leo, 1996).

## Psychology of Confessions

Based on what is known about the outcomes of law enforcement questioning, the most significant influence on guilty suspects' decisions to confess is their perception of the strength of evidence against them (Gudjonsson & Petursson, 1991; Kebbell, Alison, Hurren, & Mazerolle, 2010; Leo, 1996; Zulawski & Wicklander, 2002). Guilty suspects are more likely to confess when they believe their guilt is known and cooperation with law enforcement might serve them better than allowing investigations, and any subsequent legal proceedings, to continue without their cooperation. During interrogations, investigators may attempt to convince suspects their guilt is known using various techniques that will be discussed later in this chapter.

Another influence on guilty suspects' decisions to confess is their natural inclination to rationalize their crimes with justifications and excuses for what they have done in an effort to minimize the seriousness of their offenses and, consequently, their punishments. Many notable law enforcement questioning methods incorporate techniques that encourage suspects to act on these inclinations and confess (Gordon & Fleischer, 2011; Inbau, Reid, Buckley, & Jayne, 2013; Napier, 2010; Walters, 2003; Yeschke, 2003; Zulawski & Wicklander, 2002). For example, investigators may suggest to suspects that they committed their crimes because they were impaired by drugs that were readily available on the streets, making our immoral society to blame. These suggestions are carefully selected and tactically introduced into the questioning process based on the ways that certain offender types tend to rationalize their crimes to themselves and others.

## Psychopathic Suspects

Psychopaths are difficult to question and rarely confess to the crimes they commit (Schafer & Navarro, 2010). Since investigators do not always know ahead of time when they will be questioning psychopathic suspects, they may be caught off

guard by this difficult personality type and not adequately prepared. Popular law enforcement interview and interrogation training manuals provide very limited information on effective questioning techniques for psychopathic offenders. This is probably because traditional methods focus on the emotions and concerns that most people have in abundance, but psychopaths woefully lack. The techniques used for psychopathic offenders are markedly different from those recommended for every other type of offender. Experts O'Toole, Logan, and Smith (2012) sum up the challenges of interviewing psychopathic suspects:

> Through their behavior, psychopaths convince interviewers that they have remorse when they have none and that they feel guilt when they do not. Their glib and charming style causes law enforcement officers to believe the suspects were not involved in the crime. The psychopathic individual's grandiosity and arrogance offends investigators. Their pathological lying frustrates and derails the interviewer's best efforts (p. 19).

Quale has identified specific behaviors exhibited by psychopaths that make them particularly challenging to question as suspects in criminal investigations (2008). For example, psychopathic suspects may see interviews with criminal investigators as games they must win. They may attempt to take control of interviews and seem amused by the questioning. Being caught in a lie may have little or no effect on them. Since they see emotionality as a weakness, psychopaths may attempt to generate emotional responses from investigators by speaking in callous terms. Conning and manipulative themselves, they may easily identify investigators' attempts to lure them into making contradictory statements or admissions of guilt.

Even though psychopaths constitute a low percentage of all criminal suspects who are questioned by law enforcement officers, they are expected to be encountered more often in investigations of crimes addressed within this chapter, such as murders, rapes, and violent assaults, due to their unique personality traits (Hare, 1993). Where appropriate, the questioning techniques mentioned in this chapter include caveats specific to psychopathic offenders.

## Behavior-Based Investigations

Interview and interrogation strategies are developed based on predictions of how suspects will react to investigators' attempts to elicit information from them. Information about suspects' personalities, how they behave under stress, how they interact with others, and what motivates them helps investigators plan ways to build rapport, discourage deception, and predict how guilty suspects might respond to persuasive tactics intended to elicit truthful information from them. This type of information might be collected during the normal course of an investigation, but investigators sometimes need to search for additional behavioral information to prepare for questioning of specific suspects. Behavior-based investigations are considered as distinct investigations within themselves.

One method of collecting behavioral information is by interviewing teachers, employers, neighbors, or others who might have useful behavioral information about particular suspects and are likely to keep the inquiry discrete. These types of interviews can even be conducted simultaneously by multiple investigators shortly before suspects are questioned. This can prevent suspects from being tipped off that their questioning is imminent. A wealth of behavioral information also can be found in educational, vocational, medical, and mental health records, if available. Suspects' activities on social media may provide investigators with additional clues to behavior that can be useful during questioning. Previous interviews of suspects may contain the most valuable information when predicting how they might respond to questioning in the future. This information comes from audio and video recordings of interviews, reports of interviews, interview notes, or even from discussions with law enforcement officers who have spoken to suspects in the past.

Certain types of information discovered during behavioral investigations can help investigators determine how to establish rapport with suspects during the early stages of questioning. Rapport is quickly established between individuals who feel they share common interests

and have similar ways of thinking (Zulawski & Wicklander, 2002). Knowing where suspects have lived or have spent significant periods of time can be especially helpful when establishing rapport. Investigators can then talk about their links to these places, such as having once lived there, having friends who have lived there, or having special interests in the particular location for some reason. Information about suspects' interests can be used the same way. Knowing about suspects' accomplishments, skills, and abilities enables investigators to compliment them on these things. Compliments can have a disarming effect on suspects.

During behavior-based background investigations, personal information is sometimes discovered that suspects would never expect investigators to find. This type of information can be extremely effective at preventing suspects from engaging in deceptive behavior during interviews. For example, if investigators know that a 40-year-old suspect was accused of stealing from a place of employment when he was only 18, when discussing his background information the suspect could be asked about any problems during that particular period of employment. If the suspect either fails to mention the allegations or provides partial information, investigators can fill in the blanks with what they know. This technique is intended to surprise a suspect with the thoroughness of an investigation and discourage him from attempting to deceive or otherwise manipulate investigators.

Behavior-based background investigations of suspects in serious crime cases are particularly important in preventing investigators from being caught off guard by psychopathic suspects. The traditional methods of building rapport and eliciting confessions that tend to work with most offenders will unlikely be effective with psychopaths. Information obtained during the normal course of an investigation may not identify psychopathic suspects due to their frequent use of artificial charm and manipulation to satisfy their needs. As a result, when investigators ask others to describe these subjects, they tend to get a wide range of descriptions.

## Suspect Interviews

During the interview phase, suspects are questioned about their accounts of circumstances and events relative to the crimes being investigated. In the early stages of an interview, investigators must assess a suspect's personality, attitude, and behavior to determine how rapport can be established to facilitate a cordial flow of information. As suspects provide relevant information, investigators look for verbal and nonverbal indicators of truthfulness and deception in their accounts based on a combination of established detection techniques and their "gut" feelings. Investigators also look for clues that reveal how suspects might respond to accusatory questioning if they are indeed guilty.

## Miranda Warnings

When questioning suspects, investigators must determine whether a particular situation requires that a suspect be warned of his constitutional, or *Miranda*, rights to remain silent and to have counsel present during questioning. Generally, if the suspect is in *custody*, the warnings are required. Investigators must have a good working knowledge of the legal definition of custody to help make these determinations. When investigators are in doubt as to the necessity of *Miranda* warnings, erring on the side of caution by warning suspects of their rights is always best, unless public safety exceptions dictate otherwise. When investigators decide not to "mirandize" suspects before initiating questioning, it is important that these suspects are periodically advised that they are free to leave at any time. This best practice protects the admissibility of incriminating statements made by guilty suspects.

In serious crime cases, suspects are expected to have significant concerns about the evidence that has been collected against them. As mentioned earlier, guilty suspects may make efforts to discover the evidence against them before engaging in any relevant dialogue with investigators. When investigators reveal evidence to suspects before issuing *Miranda* warnings, guilty suspects may be

satisfied with the level of information they have already received and refuse to waive their rights. The following exchange is how investigators might manage a situation like this:

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*Suspect:* So why is it you guys want to talk with me?

*Investigator:* It's like I said on the telephone earlier today David, we're talking to everyone who had contact with the victim in the last few days.

*Suspect:* I can't really remember the last time I had contact with her. Why do you guys think it was in the last few days?

*Investigator:* David, we can talk about the investigation but it's important that you understand your constitutional rights before we discuss the case any further. Once you understand your rights, if you still want to talk to us, we can discuss the case more. This is a legal issue and we cannot proceed any further until it's taken care of.

## Building Rapport

Rapport building starts the moment that investigators and suspects lay eyes on one another. Investigators should dress professionally but keep their badges, weapons, handcuffs, or other reminders of punishment out of sight if possible. Rapport is developed further as investigators start collecting routine biographical information from suspects. If appropriate, investigators can also request more personal information, such as their educational and vocational backgrounds and information about their health, hobbies, and interests. By having previous knowledge of the information that is being collected from suspects, investigators can come across as having interests in common with suspects to build and maintain rapport throughout questioning.

Interview and interrogation manuals generally recommend that investigators avoid aggressive dialogue and assume professional and nonjudgmental attitudes when questioning suspects (Inbau et al., 2013; Napier, 2010; Walters, 2003; Zulawski & Wicklander, 2002). This means that investigators must hide any anger or disgust for suspects, regardless of the nature of the crimes they may have committed. Research on the reasons why murderers and sexual offenders either admit or deny their crimes indicates that dominant interview styles that come across as impatient, aggressive, obstinate, or condemning are more likely to result in denials than confessions (Holmberg & Christianson, 2002).

When dealing with psychopathic suspects, investigators are advised against making attempts to establish emotional connections with them. As previously mentioned, this may be regarded by psychopaths as a sign of weakness (National Center for The Analysis of Violent Crime, 2010; O'Toole et al., 2012; Quale, 2008). Instead, rapport with psychopathic suspects can be developed by inflating their importance to others and appealing to their egos. Investigators may use compliments and acknowledge a psychopathic suspect's importance to keep him involved in the conversation. Investigators should avoid criticizing psychopathic suspects, however, since they typically respond to such remarks with anger.

## Obtaining Suspects' Accounts

Investigators encourage suspects to provide their accounts in narrative form by using open-ended questioning techniques. For example, instead of asking a series of direct questions about a suspect's alibi such as, "What time did you get up that morning?" investigators might say, "Tell me everything you did from the time you got up that morning until you went to sleep that night." This is typically followed up with language that encourages complete explanations like: "Don't leave anything out. It's all important." By asking for information in narrative form it becomes more difficult for suspects to later claim their statements were incomplete, misunderstood, or taken out of context. Narrative-style statements also provide investigators with more opportunities to analyze suspects' verbal and nonverbal behaviors. Investigators avoid guiding or redirecting suspects' responses unless they are clearly attempting to lead investigators astray. After suspects are

given opportunities to provide information in narrative form, investigators can clarify any incomplete or ambiguous information through the use of more direct questions.

When obtaining suspects' accounts during interviews, investigators avoid disclosing evidence collected during their investigations, and do not typically confront suspects when their statements are known to be, or even appear to be, deceptive. Suspects are allowed to make statements that conflict with case facts without being deterred since this information can be used during interrogations to confront suspects on their dishonesty. Even when guilty suspects do not confess, their conflicting statements and dishonest behavior can still be used to reveal their deceptive natures to judges and juries. Written reports cannot accurately reflect the nuances of deceptive behavior during questioning; therefore, audio and video recordings are more important in serious crime cases since these offenders are the least inclined to confess.

## Detecting Deception

During the interview phase of questioning, investigators continually evaluate the verbal content and outward behavior of suspects to determine if they are being deceptive. If deception is detected, investigators can use this information to later confront suspects on their dishonesty, if appropriate, during interrogations. Also, when deception is detected, it can remove uncertainties about suspects' guilt, giving investigators more confidence they are interrogating the proper individuals.

Deception obviously will be revealed when guilty suspects make statements that directly conflict with evidence known to investigators. However, there are other indicators of deception related to evidence. Guilty suspects may struggle mentally to formulate statements that will satisfy investigators' questions without conflicting with whatever evidence investigators may have. This mental struggling, sometimes referred to as *cognitive load*, may be evident in suspects' slower response speed to evidence-related questions than to nonthreatening questions. Guilty suspects

will also limit information they provide to investigators to avoid statements that conflict with evidence. In experimental research, when investigators possessed evidence they did not reveal to suspects while questioning them, liars provided less detailed information in free-narrative accounts (Hartwig, Granhag, Stromwall, & Kronkvist, 2006). Interviewers trained to look for these deceptive cues while withholding evidence during questioning were significantly better at detecting deception than untrained interviewers.

Many manuals and books discuss methods of detecting deception based on the nonverbal communications of suspects during questioning. For example, the act of covering one's mouth with their hand is considered by many to be an indicator of deception (Gordon & Fleischer, 2011; Houston, Floyd, & Carnicero, 2012; Inbau et al., 2013; Napier, 2010; Walters, 2003; Zulawski & Wicklander, 2002). Mouth covering is thought to be an unconscious effort to stop or hide untruthful utterances or simply to muffle what is being said. There are numerous other recognized nonverbal indicators of deception such as crossing of arms and legs, slight turns of the body to one side or another, slouching with feet straight out, or moving chairs backward. Some experts believe that guilty suspects subconsciously do these things to establish barriers or distance between themselves and interviewers, while others see these as defensive postures dating back to early man that are intended to protect areas of the bodies most vulnerable to physical attacks. Experts tend to agree these behaviors are only significant when lines of questioning transition from nonthreatening topics, like suspects' interests, to topics expected to be significantly more stressful for guilty suspects, such as accusations of dishonesty in their accounts. Nonverbal indicators of deception are attributable to significant levels of stress and are only considered when observed in clusters and when repeated as the stress-inducing topics are revisited. Like many other stress-induced indicators of deception, nonverbal indicators should occur with less frequency, if at all, with psychopathic suspects who are unlikely to experience the same significant levels of stress that others might during questioning

(O'Toole et al., 2012). Another technique that has proved to be very effective at detecting deception during suspect interviews is the Behavior Analysis Interview developed by John E. Reid & Associates (Inbau et al., 2013) and derivatives of this technique developed by the authors of other interview and interrogation manuals (Gordon & Fleischer, 2011; Yeschke, 2003; Zulawski & Wicklander, 2002). Using this technique, several standardized behavior-provoking questions are asked during structured interviews to help investigators determine whether suspects are being truthful when they deny being involved in the crimes under investigation. For example, a suspect may be asked what he thinks should happen to someone who committed the crime that is being investigated. An innocent suspect may respond by suggesting a fitting punishment by most people's standards whereas a guilty suspect may recommend an unreasonably mild punishment. When using techniques to detect deception, investigators must be mindful that innocent suspects may be attempting to hide their involvement in issues unrelated to the crimes under investigation. For example, this author once interrogated a suspect in a missing child investigation who could not explain a significant gap in his timeline on the day the victim went missing. The suspect, who was married, eventually explained that the missing part of his day was attributable to a sexual encounter he had with a prostitute. The encounter was confirmed, and it was later determined the suspect had nothing to do with the victim's disappearance. The suspect, knowing he was innocent and confident no evidence would be discovered against him, was apparently willing to endure a child abduction investigation rather than admit to the affair. These situations are not unusual in investigations of more serious crimes that might involve suspects who are more likely to be involved in a variety of nefarious activities.

## Interrogations

The urgency associated with identifying the perpetrators of crimes and the weight of evidence collected against suspects in investigations will dictate whether interrogations are warranted.

Transitioning from an interview to an interrogation is generally considered an "all-or-nothing" proposition. Weak interrogations are usually ineffective and, once they are terminated, there may be no further opportunities to reengage these suspects.

Numerous interrogation techniques and approaches have been developed and published in law enforcement training manuals, and this chapter cannot possibly cover all of the various techniques. There are certain components, however, that are common to many of these methods; these will be discussed in the following two sections.

There are two primary steps universally recommended when persuading guilty suspects to confess. The first step is to convince suspects their guilt is known, and the second is to encourage suspects to act on their natural inclinations to rationalize their crimes through justifications and excuses for what they have done. This allows guilty suspects to "save face" and possibly escape some, if not all, punishment by minimizing the seriousness of their offenses.

## Convincing Suspects Their Guilt Is Known

If investigators have overwhelming evidence against suspects, it should be easy to convince them that they cannot hide their guilt. Without overwhelming evidence, however, investigators must somehow convince suspects their guilt is known without producing specific evidence to back up their statements. This can be accomplished with four basic techniques: making accusations, presenting false evidence, inferring evidence exists, and displaying props.

## Using Accusations

When investigators use accusations, whether direct or indirect, suspects must decipher whether these accusations are based on clear evidence of their guilt or whether investigators are simply trying to trick them into believing their guilt is known. Guilty suspects may see no reason to

confess if they believe investigators lack clear evidence against them. This is why investigators must show confidence in their accusations and never show uncertainty, even when it exists.

Law enforcement manuals recommend the use of specific techniques when delivering accusations. Some methods incorporate direct accusations to initiate interrogations (Gordon & Fleischer, 2011; Inbau et al., 2013), while others avoid the use of direct accusations and favor the use of questions that assume guilt, such as leading or assumptive questions (College of Policing, 2013; Yeschke, 2003; Zulawski & Wicklander, 2002).

Direct accusations are delivered in a decisive manner leaving nothing to doubt. For example:

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*Investigator*: David, a lot of guys have been working on this case for a while now. We've collected a lot of information and some of the lab reports came back today. Based on what we now know, it's clear that you are not being honest with me and that you were involved in this thing.

In response to direct accusations suspects may, in rare occasions, provide admissions, confessions, or other information they originally intended to hide. In serious crime cases, suspects are much more likely to respond with denials. Guilty suspects tend to offer weak denials or employ stall tactics to avoid committing themselves to definitive denials that investigators might know to be patently false. Guilty suspects may respond with a blank stare, an unusually long delay followed by a weak denial, a vague response, or a response in the form of a question, such as, "Why would I do something like that?" These types of responses indicate suspects are weighing, formulating, or failing to come up with plausible responses. Guilty suspects may also respond with counter-accusations or by expressing shock or dismay in a manner that appears overly dramatic, contrived, or rehearsed. They might deny a larger category of wrongdoing while adding language intended to intensify their denials or make them more absolute. For example, in response to an accusation of sexually assaulting a child, a suspect may respond by saying, "I would never hurt a child. I swear to God!"

Innocent suspects typically respond to direct accusations with shock, anger, or the type of spontaneous and fleeting laughter that comes from hearing something ridiculous. Interrogation methods that incorporate direct denials use techniques to redirect the focus of suspects from their denials to rationalizations and excuses for what they have done. These techniques are discussed in more detail later in this chapter.

Direct accusations have another important function in suspect questioning. Through experience and training, investigators can become familiar with verbal and nonverbal indicators of guilt and innocence that are sometimes seen in responses to direct accusations. Investigators can use their evaluations of these reactions to determine whether further questioning is needed. Some of these indicators were described earlier, but there are many other nuances to this technique that cannot be adequately addressed here.

Denials triggered by direct accusations can also have negative impacts on the questioning process (Zulawski & Wicklander, 2002). Once guilty suspects deny their involvement in crimes, it becomes psychologically more difficult for them to confess because they must first admit that they had been lying to investigators all along. As a result, some questioning approaches avoid direct accusations and instead incorporate the use of assumptive questions to elicit information from suspects. For example, in a rape case where a suspect has denied even knowing the victim, he may be asked if he wanted to hurt the victim when he decided to have sex with her. These types of questions would only be asked after investigators have used techniques that should cause guilty suspects to consider the prospects of confessing. These approaches are expected to be less effective with those who have previously been questioned as suspects in criminal investigations. Suspects familiar with law enforcement interrogation techniques are more likely to challenge and disrupt investigators during the early stages of an interrogation if they are unconvinced there is strong evidence against them. However, these approaches can be very effective in serious crime cases for first-time offenders who may harbor some level of guilt for the crimes they have committed.

## Presenting False Evidence

Another method of convincing suspects that their guilt is known is by presenting false evidence. Actual evidence of a crime may not be available or there may be reasons for keeping certain evidence confidential, such as testimony of protected sources or victims. In these situations, suspects might be presented with false evidence to elicit their confessions. The US Supreme Court has consistently opined that the use of deception does not alone render a confession involuntary and almost every state has followed this guideline in similar rulings (Marcus, 2006). In Frazier v. Cupp (1969), the Court allowed a confession where police officers falsely indicated that a suspect was implicated in a crime by an associate. Since *Frazier*, the courts have allowed law enforcement investigators to lie during interrogations about fingerprints, DNA, and satellite imagery that placed various suspects at crime scenes (Oregon v. Mathiason, 1977; State v. Nightingale, 2012). However, a line was drawn by a Florida appeals court when it ruled that falsification of evidence went too far when law enforcement officers falsified a scientific report indicating that a suspect's DNA was found at a crime scene (State v. Cayward, 1989).

Investigators must be cautious when using false evidence ploys for two reasons. First, they may not work. Guilty suspects usually have a good idea of the evidence that was left behind. If they realize evidence ploys are being used against them, they may lose any trust and respect for investigators that might have been established earlier. Suspects may also become skeptical whether any evidence actually exists that they should be concerned about. Should this happen, it would be a serious setback for investigators. For this reason, evidence ploys are kept vague. For example, instead of telling a suspect his DNA was discovered on a particular item at the crime scene, investigators might say that DNA evidence clearly shows that the suspect was involved in the crime. Evidence ploys typically are planned in advance of interrogations, but they may be developed during the course of questioning based on statements made by sus-

pects. Because of the risks associated with using them, evidence ploys are only considered when other techniques have failed.

The second reason investigators must be cautious with evidence ploys is because innocent suspects may confess to crimes they did not commit when they are presented with false evidence. This occurs when innocent suspects become convinced that evidence discovered during investigations implicates them in crimes and they have no chance of convincing investigators otherwise. Juveniles and individuals with even slight cognitive impairment are particularly vulnerable to making false confessions (Kassin et al., 2010). Any confession obtained during a criminal investigation should be corroborated by other case facts to ensure reliability, but this becomes even more crucial when confessions are made after presenting false evidence.

A potentially safer method of using false evidence is to simply imply that incriminating evidence could possibly exist. This may involve references to certain investigative measures that are typically used when crimes, such as the one being investigated, are solved. This technique frequently draws questions from suspects about the evidence supposedly discovered. Investigators must deflect these questions with logical reasons for withholding the evidence. Below is an example of this technique:

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*Investigator:* David, there are many ways that these matters are investigated. For example, dead skin cells are constantly being released from our bodies, and they cling to our clothes. Our skin cells are left on the surfaces that we touch and that our clothes touch. We've got methods of collecting these cells and having DNA analysis performed on them. This tells us who was involved in the crimes that we investigate.

*Suspect:* Did you look for any of those dead skin cells in this case?

*Investigator:* David, we don't usually tell people what kind of evidence we've discovered during our investigations. This is because the prosecutors always want to know who did and who didn't cooperate with us during these investigations. If we say a person refused to tell us anything until we

showed him every little piece of evidence, the prosecutors will say, "Well, that's not cooperation." David, we need to show whether the people we've talked to have decided to cooperate with us or not. That's why we can't just tell everyone what we have found during an investigation.

## Displaying Props

Certain props are also used by investigators to imply that evidence of a suspect's guilt is abundant when, in fact, it might be lacking. The authors of law enforcement interview and interrogation training manuals recommend that investigators have thick files in their hands when questioning suspects even if there are few documents that actually exist in the case (Inbau et al., 2013; Zulawski & Wicklander, 2002). Suspects may equate thick case files with thorough and important investigations. Filing cabinets and archive boxes are sometimes used for more elaborate props. The presence of props is intended to make the task of formulating lies more difficult for guilty suspects who must gauge what they can and cannot lie about. The problem with props is at times they can be too powerful, giving guilty suspects the impression that formulating effective lies will be impossible. This can cause guilty suspects to be extremely guarded in everything they say, making interviews very difficult, or they may simply terminate their interviews altogether.

## Encouraging Suspects to Rationalize Their Crimes

As explained earlier, suspects do not typically confess simply because they are convinced their guilt is known. The process of eliciting confessions from guilty suspects is much more effective when investigators encourage them to rationalize their crimes in order to minimize the seriousness of their offenses. These rationalizations can be actual beliefs of offenders, complete fabrications intended to minimize or eliminate punishment, or a combination of both. During interrogations, investigators suggest ways that suspects can rationalize their crimes if they are indeed guilty.

These suggestions are widely known throughout the law enforcement community as interrogation *themes*, a term coined by the man who first developed modern interview and interrogation techniques for US law enforcement, John E. Reid. Theme material comes from an understanding of how and why certain types of offenders tend to rationalize their criminal behavior. Investigators might plan to use several different themes prior to suspect questioning, but they must remain flexible. Some of the most effective themes come from information that suspects provide during pre-interrogation interviews. Authors of interview and interrogation training aids have developed generic themes for investigators to consider in certain type of cases. For example, in homicide investigations, Senese recommends investigators suggest to suspects that they may have caused the death of someone for the following reasons: because the suspects were never shown love as children, they were physically or sexually abused as children, they handle adverse situations aggressively as a result of having lived in high-crime neighborhoods, they were under the influence of drugs or alcohol, or that they play video games that normalize violent behavior, just to name a few (2008). When presenting themes, investigators do not use harsh or legalistic words for crimes such as "murder," "rape," "assault," or "molestation." Instead, crimes are described with terms such as: caused the death of that woman, had sexual contact with that girl, got too aggressive with the guy, etc.

The following is an example of how a theme may be introduced by investigators when conducting an interrogation in a child sexual assault case:

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*Investigator:* James, I've talked to a lot of people about you during this investigation. They can't believe that you would ever intentionally hurt a child, and you certainly don't seem like that type of person to me either. You must feel bad about what happened and I'm sure that you have lost plenty of sleep over it. I'll bet you were just trying to show Sally what boys actually want from her when they start flirting around. I think you were only trying to prepare her for the realities of life, and she took it the wrong way.

Themes also can be introduced to suspects during questioning by using third-party scenarios. For example:

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*Investigator:* Larry, I worked a case similar to this one a few years back. A guy was having a hard time because he had just lost his job at a place he'd been working at for 20 years. The guy went to a bar and had a few too many drinks. After the guy drove home, he was sitting in his apartment and heard his upstairs neighbor playing his music ridiculously loud for the umpteenth time, and the guy lost it. He walked upstairs with his gun, just meaning to scare the guy. But one thing led to another, and the next thing you know the neighbor was shot. It's not like the guy meant to hurt anyone. He just wasn't equipped to handle all that stress, and he did something completely out of character for him. The guy seemed really sorry for what he had done. Larry, I think something like that must have happened to you.

Themes that incorporate emotional concepts are unlikely to be effective with psychopathic suspects. Most psychopaths would probably find it amusing that someone would actually lose sleep over offending against someone else. With these suspects, themes should address their egocentric natures. For example, in a serial murder case, investigators may suggest that a particular crime scene shows exceptional intelligence on the part of the perpetrator in the way he planned, executed, and covered up his actions and that FBI criminal profilers are very excited about the opportunity of interviewing the suspect. Investigators may even suggest that a movie producer has been asking questions about their investigation. But psychopathic suspects are unlikely to consider these themes unless they first believe that they are backed into a corner with incriminating evidence and that confessing will serve their best self-interests (Schafer & Navarro, 2010). This is why preparation is critically important when interviewing suspects who may have psychopathic characteristics.

Investigators know to be careful when proposing themes that might be used as reasonable legal defenses. The "child came on to me" theme is unlikely to be accepted as a reasonable justification for sexually abusing a child by most prosecutors, judges, and jurors; however, accidental touching of a child's private areas just might.

During pre-interrogation interviews, suspects may provide information that will raise doubts about the appropriateness of certain themes that investigators had planned to use. Should this occur, these themes should either be modified or discarded altogether. Suspects will sometimes confirm the appropriateness of certain theme material or provide information that will help investigators formulate new themes during pre-interrogation interviews. A theme developed during the initial interview can sometimes be the most effective. Regardless of how promising any theme may appear during the pre-interrogation interview, however, it can be summarily rejected by a suspect during his interrogation. Therefore, investigators must remain flexible and creative when developing theme material.

When investigators are involved in unusual, bizarre, serial, or exceptionally heinous crimes, they will sometimes seek advice from experts in criminal behavior to devise interrogation themes for particular suspects. These measures are frequently taken in high profile investigations when important suspects are questioned and opportunities for questioning them might be limited. Many law enforcement agencies now have components established within their investigative divisions that specialize in the behavioral aspects of criminal investigations, such as the FBI's Behavioral Analysis Unit. These units have the ability to analyze cases and provide expert advice in developing theme material.

## Controlling Interrogations

Guilty suspects go through fairly predictable stages when experiencing accusatory questioning by law enforcement (Inbau et al., 2013). By understanding these stages, investigators can more effectively manage and control interrogations and move guilty suspects toward cooperation. It also allows investigators to identify innocent behavior and shift their focus away from accusatory lines of questioning.

## Preventing Denials

Since spontaneous confessions from guilty suspects are rare in serious crime cases, investigators must be prepared to handle the denials that are likely to occur when questioning these suspects. Guilty suspects are likely to respond to accusations or even suggestions of their guilt with denials. With each repeated denial, it becomes more and more difficult for most guilty suspects to later admit that they had been lying to investigators all along. It is easier to apologize for lying once or twice than it is for lying repeatedly throughout the course of a lengthy interrogation.

Most published criminal interrogation methods are structured to prevent repeated denials from suspects using one of two approaches. The first approach is intended to stop denials that follow direct accusations of guilt. In these situations, investigators attempt to stop denials and redirect a suspect's focus toward interrogation themes. The following is an illustration of language used to interrupt a suspect's denials and transition to theme development in a gang homicide investigation:

■

*Suspect:* Why do you think I was there when the guy died? You have it all wrong.

*Investigator:* David, we know what happened. That's clear from the evidence. The important thing now is to find out why it happened. That's what I want to talk to you about now.

*Suspect:* But I didn't have anything to do with it.

*Investigator:* David, what I'm about to tell you now will have an effect on the rest of your life. This is very important. Please let me talk. Then I'll listen to whatever you have to say. Since becoming a detective, I've worked several cases just like this one.

*Suspect:* I don't understand why you think I did this.

*Investigator:* David, please just give me a second. I want you to understand what's going on here. I don't think you are the type of guy who has no regard for human life. You're not like that at all.

*Suspect:* No I'm not.

*Investigator:* Good. That's what I thought. I just think you felt it was the only option you had at the time because the guy was giving you no respect. It was like the guy wanted you to attack him. Maybe he had some kind of death wish or something. You just acted on impulse. I'm sure you wish it didn't happen that way, but what else could you do?

By stopping the suspect's denials, the investigator was able to introduce a theme that the suspect, if guilty, might use to rationalize his behavior to investigators and confess to his crime. When suspects continue to make denials, investigators should talk over them, or use dismissive language such as, "I hear what you're saying, but let me finish." Investigators must then quickly get back to theme development.

A second approach for preventing denials is to avoid making accusations or insinuations of guilt until themes have been presented to suspects through third person scenarios. These scenarios typically involve stories about others whose actions were somehow justified in matters similar to those being investigated. If it appears a suspect is identifying with a particular theme, investigators can then use an assumptive or leading question to indirectly accuse the suspect of involvement in the matter being investigated and start moving him toward a confession. For example, in a rape investigation, an investigator may use the following approach after presenting a third person scenario: "David, the guy I was just talking about certainly didn't mean for things to end up the way they did. I think something like that may have happened to you. What was it that caused you to focus your attention on Sally?" If an assumptive question like this leads to further denials, investigators can either return to using third-party scenarios or use the more forceful tactic of directly accusing the suspect of his involvement.

## Keeping Suspects Focused

Another aspect of controlling interrogations is to keep suspects focused on what is being said by investigators. When suspects feel they are not being allowed to voice their denials or ask questions about evidence, they may withdraw from the conversation. According to Inbau et al.:

Guilty suspects who eventually confess often start out by offering verbal statements intended to dissuade the investigator's confidence of their guilt, then they psychologically withdraw in an effort to outlast the investigator, and then go through a stage of mentally debating the possible benefits of telling the truth (2013, pp. 187-188).

This can be seen when suspects begin looking away from investigators with blank stares and showing diminished emotional responses on their faces. This phenomenon is more likely to happen when investigators use direct accusations of guilt that are followed by stern attempts to stop suspects' denials. When suspects withdraw, investigators can slowly move in, closing the distance between themselves and their suspects in a non-threatening manner. Attempts to gain eye contact with suspects can force them to refocus their attention on the investigator's words. Suspects may start thinking about the negative aspects of confessing if investigators allow them to withdraw from the process too long. This can wipe out any progress investigators have made in moving suspects toward confessions. Therefore, investigators must regain the attention of suspects who have withdrawn and keep them engaged in the conversations.

## Encouraging Suspects to Act on Their Inclinations to Confess

When suspects begin to consider the possibility of confessing to their crimes, the frequency and intensity of their denials may begin to weaken or even stop completely and they show signs of a defeated will. These signs may include slumping forward, looking down at the ground, and possibly even crying. When this happens, investigators start working toward a technique described by Inbau et al. (2013) as the *alternative question*. Using this technique, suspects are asked two leading questions. One is a *bad* alternative that involves a reprehensible reason for committing the crime under investigation and the other is a *good* alternative that involves a justifiable reason for committing the crime. What follows is an example of an alternative

question used in an interrogation of a suspect in a child molestation investigation:

■

*Investigator:* When people hear about an adult being in a sexual situation with a young girl they automatically assume that the adult is some kind of sadistic predator who wants to hurt and humiliate children by forcing them to have sex. I know you're not like that at all. I can see that. You're successful at work and take care of the people around you. Everyone we've talked to says that you would never hurt a child. Like I've been telling you, I believe that you were only trying to educate Jane on sex because you truly care for her and want her to understand what love is supposed to be like when she's older. Listen, if you don't get your side of the story out, everyone will automatically assume that you did this for sadistic reasons. I have to tell the prosecutor something in the morning. I can't just tell her what I think. It has to be in your words. You have to tell me what happened. You're not a sadistic predator that needs to be kept away from children are you? You were just trying to educate Jane, right?

By offering suspects a choice between these two questions, guilty suspects can admit to the good alternative with one word or even a nod of the head that does not involve looking his questioner in the eyes. When suspects do not answer either of the alternative questions, investigators can repeat and intensify interrogation themes and eventually return to their alternative questions. Investigators may go back and forth between presentations of themes and alternative questions several times before obtaining an answer of admission from a guilty suspect. Regardless of how most published interview and interrogation methods are structured, almost all incorporate some form of an alternative question to encourage initial admissions from suspects in criminal investigations.

When suspect's acknowledge their involvement in crimes by nodding or answering "yes" to the good alternatives, these acknowledgements are referred to as *admissions* and not *confessions*. Confessions are statements made by suspects that contain details of their criminal acts. When sus-

pects make their initial admissions, they are frequently in a reticent mood and are still trying to decide exactly what specific information they should provide to investigators. Investigators continue to use leading questions that can be answered by suspects with one word answers or nods of the head to confirm their involvement in specific aspects of their crimes. Once suspects have confirmed as many aspects of their offenses as they are willing to when using this method, investigators can go back over their admissions and attempt to elicit more detailed information about each of them. Suspects may decide to stop providing information if they feel that investigators are getting excited about the information that is being provided. Investigators must mirror the moods that suspects are in while obtaining crime details from them. When suspects make initial admissions and when they are providing details of their actions, investigators should support their decisions. If the suspect in the previous example were to make an admission, the investigator might say, "I knew you were just trying to educate Jane on sex. That confirms what I have been thinking all along. There is no way that you are a predator."

Should suspects persist in their denials and fail to provide details of their offenses, investigators might decide to use more aggressive tactics by confronting suspects on their statements that conflict with either case evidence or earlier versions of their accounts. Confronting suspects on inconsistent statements is one of the most effective techniques used in eliciting incriminating information from guilty suspects (Leo, 1996). This may be the point where actual evidence is revealed to suspects or where evidence ploys are used.

Confronting suspects on conflicting statements is an antagonistic measure that runs the risk of generating defensive attitudes, especially with guilty suspects who have endured lengthy interrogations. This will require investigators to deal with a new round of denials and additional efforts to refocus suspects on interrogation themes.

When dealing with psychopathic suspects, investigators sometimes feel that their techniques are not working due a lack of the typical emotional feedback that comes from other types of offenders. "When caught in a lie or challenged with the truth, [psychopaths] are seldom perplexed or embarrassed—they simply change their stories or attempt to rework the facts so that they appear to be consistent with the lie" (Hare, 1993, p. 46). However, investigators must not attempt to gauge their progress with psychopathic offenders as they do with others. Like all other offenders, psychopaths still have to decide whether it is time to cooperate with investigators and possibly get more favorable outcomes for themselves or allow investigations to continue unabated, giving them less control over their outcomes.

In an actual case, this author confronted a suspect with psychopathic characteristics on numerous conflicting statements he made during a lengthy interrogation. I then complimented the suspect on his numerous ingenious, albeit criminal, acts that he had been involved in but expressed my disappointment with him for not being smart enough to come up with better lies than the ones he had been using with me. The suspect began to cry, possibly out of frustration. He then admitted that he had been lying to me for the previous two hours and laid the blame for his criminal behavior squarely on his father for being an absentee dad. I later learned this could not have been any further from the truth.

While psychopathic suspects have been known to confess to their crimes, the fact remains that they are much less likely to do so than other types of offenders. The primary goal of an interrogation is to gain incriminating information from a suspect, if guilty; however, investigators might want to consider modifying their definition of a successful interrogation when questioning a psychopathic suspect (Perri, 2011). Even without a confession, a video recording of psychopathic suspect's antisocial behavior during questioning, such as blatant lying, manipulation, egocentricity, and absence of emotion, can go a long way in helping a judge or jurors understand the capacity and capability he has for committing a particular crime. When planning questioning strategies for psychopathic suspects, investigators should consider this as a secondary goal and incorporate lines of questioning specifically designed to draw out these behaviors.

## Corroboration of Confessions

When suspects begin providing incriminating information during interrogations, investigators should keep in mind that statements can always be recanted. This sometimes happens when suspects have had time to consider whether they made the right choice by confessing and then conclude that their confessions may cause them more harm than good. During interviews, investigators must consider how they might corroborate incriminating information being provided by suspects to ensure that this information is reliable and, if so, whether it can withstand challenges of its accuracy by the defense. If a suspect was to say he discarded something from a crime scene, he should be asked to help investigators find the item while he is still amenable to cooperation. The suspect might agree to take investigators to the evidence or provide information that can help investigators locate the evidence and corroborate his confession. Inbau et al. (2013) describe corroboration of incriminating statements in this manner as *independent* corroboration, while *dependent* corroboration occurs when a suspect provides specific information about a crime that he should only know if he was indeed involved in the crime. The problem here is that law enforcement officers sometimes relate information about crimes during interactions with suspects without remembering or realizing it. Innocent suspects can also deduce that certain evidence exists from information provided during questioning. When suspects provide information assumed to be nonpublic during a confession, investigators should attempt to confirm and document that this information should not have been known to the suspect unless he was involved in the crime under investigation.

In some cases, it will be difficult to clearly establish the reliability of a confession through dependent or independent corroboration. For this reason, investigators should have suspects explain or demonstrate how their crimes were committed and describe their thoughts, emotions, and actions when committing these crimes. A suspect's ability to describe unique aspects of a crime that would not easily have been thought of by an innocent person can give additional credence to a confession, especially if it those descriptions would only make sense given the nature and circumstances of the crime.

## False Confessions

In 2004, Drizin and Leo reported their findings from an important study of 125 individuals who were proved to have falsely confessed to police concerning their involvement in serious crimes. Of all crimes confessed to by this group, 81% were murder cases, 9% were rape cases, 2% were attempted murder cases, and the rest involved armed robbery, arson, assault, kidnapping, and theft. Based on no meaningful evidence other than their own confessions, 35% were found guilty and incarcerated. Of those found guilty, 18 were given sentences ranging from 20 years to life in prison and nine of the individuals were sentenced to death, although none were executed prior to their timely exonerations.

Of major importance to those in the law enforcement interrogation community, Drizin and Leo identified a population within that group who were the most vulnerable to providing false confessions in order to escape the psychological pressure associated with police interrogations. Juveniles, to include seven children under the age of 14, made up 33% of the false confessors. Cognitively impaired individuals, i.e., intellectual disability or mentally ill, were also overrepresented within the aggregate. Special care should be taken with these vulnerable suspects to avoid leading questions or persistent accusations that could cause them to falsely confess. Investigators should also be careful when misrepresenting evidence against these suspects. They may falsely confess to escape the pressure of an interrogation or simply to please their interrogators. In rare but not unheard of occasions, innocent suspects have apparently convinced themselves that they committed a crime that was actually committed by another person. This may happen when vulnerable suspects regard police officers as infallible authority figures who cannot possibly be wrong.

## Electronic Recording of Interrogations

Confession experts such as Drizin and Leo have suggested reforms to reduce the possibility of false confessions. In this author's research on the subject, the most recommended reform by false confession experts and advocates for the wrongly convicted is the mandatory electronic recording of interrogations from start to finish. The Innocence Project website notes, "This record will improve the credibility and reliability of authentic confessions, while protecting the rights of innocent citizens" ("False confessions" n.d.).

There are other benefits associated with recording the questioning of suspects. Recordings can contain an abundance of behavioral information about suspects. This can include indications that suspects are either hiding or falsifying information. Behavioral cues are frequently missed during suspect questioning because investigators must focus on formulating questions and making mental notes of important details provided by suspects. Some behaviors identified by a careful analysis of recorded questioning can lead investigators to important evidence in a case or identify areas that can be readdressed with a suspect in any subsequent interviews. Recorded suspect questioning can also give judges and juries the benefit of seeing criminal defendants as they appeared to law enforcement officers at the time of their questioning, which can be vastly different from the way they appear in court. Also, recordings of interrogations that produced reliable confessions can be used to train law enforcement officers on successful interview and interrogation techniques.

## Conclusion

Confessions may be the most pursued form of evidence in criminal investigations since they have more influence over the outcomes of criminal prosecutions than practically any other form of evidence. Individuals involved in the most serious of crimes such as assault, rape, murder, child abduction, and armed robbery are expected to be the most resistant to confessing due to the

harsh punishments that are normally attached to these types of crimes. In these cases, behavior-based investigations give investigators a better chance of gaining confessions from guilty suspects. Behavior-based investigations focus on particular suspects and are intended to collect information that will help investigators develop effective questioning strategies. Psychopathic suspects, who are expected to be represented at higher rates in serious crime cases than in others, are less likely to confess than any other category of offender. This may be because investigators are frequently unprepared for this type of interview, and there is little in the way of training material dedicated to questioning these personality types. However, information obtained from behavior-based investigations can greatly improve investigators' chances of gaining confessions from guilty psychopathic offenders.

The authors of interview and interrogation training manuals for US law enforcement officers have developed effective techniques intended to elicit reliable confessions from suspects of criminal investigations. Interviews involve nonaccusatory questioning intended to build rapport with suspects, obtain their accounts relative to the matters under investigation, detect deception in their accounts, and develop information that can be used during their interrogations. Interrogations involve accusatory questioning and persuasive techniques intended to elicit confessions from guilty suspects. Guilty suspects are more likely to confess when they believe their guilt is known and that cooperation with law enforcement might serve them better than letting investigators continue to search for evidence against them. During interrogations, investigators attempt to convince suspects their guilt is known and persuade them to act on their natural inclinations to rationalize their crimes in order to minimize the seriousness of their offenses. Suspects are confronted with case facts, whether real, fabricated, or insinuated, that conflict with their assertions of innocence. Suspects are then persuaded to act on their inclinations to rationalize their offenses by offering justifications and excuses for what they have done through interrogation themes. Investigators must continually control interrogations by handling the

denials that suspects make when confronted with accusations and convincing them that acting on their inclinations to rationalize their offenses in a confession will be in their best interests.

The use of persuasive interview and interrogation techniques described in this chapter can be very powerful on some. When using these techniques, investigators must guard against the possibility of false confessions. False confession experts have identified populations vulnerable to false confessions such as the cognitively impaired and juveniles. When questioning these suspects, investigators must look for the earmarks of false confessions and be careful not to use techniques that might cause innocent suspects to confess.

There is a vast body of literature, research, and educational material associated with the practice of interview and interrogation that cannot possibly be covered by this chapter. The information contained in this chapter describes general concepts of interview and interrogation techniques uses by law enforcement officers in the US and issues associated with the admissibility of confession evidence. However, the laws concerning confession evidence are continuously being examined and litigated by the courts and the decisions made in these matters can affect the way law enforcement officers are permitted to use certain questioning techniques. Law enforcement officers should always consult with legal experts within their agencies and prosecutors within their jurisdictions regarding the appropriate use of their questioning techniques.

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# Management and Mitigation of Insider Threats

Kirk A. Kennedy

The problems that insiders can pose to an organization are causes of great concern especially when one considers the high costs of sabotage damage to information systems, lost competitive advantage due to fraud or theft of intellectual property, and in the case of the federal government, damage to national security interests due to sabotage or espionage. The topic of insider threat is a vast area for consideration as there are so many different ways in which people working for organizations might lose, steal, or somehow cause damage to organizations' information, information systems, personnel, and other valuable resources. Thus, it is important to begin by defining the scope of this chapter and with definitions of insider threat. From there, a delineation of the personal and situational factors associated with insider threats will commence. Then, there is a discussion of a variety of promising research methodologies that will move the science forward. Finally, the chapter closes with a look at prevention, management, and mitigation strategies.

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## Scope

This chapter does not cover "kinetic" threats perpetrated by insiders since these issues are addressed in other parts of this edited volume. For example, workplace violence wrought by insiders is covered in the chapter entitled "Criminal Profiling Investigative Strategies for Arson Investigations". Also, terrorist acts by insiders are not discussed in this chapter as terrorism is covered in the chapter entitled "Terrorism and Violent Extremism". This chapter addresses nonkinetic insider acts including sabotage, fraud, theft of proprietary information, and espionage. In the process, there is discussion of both malicious and "unintentional" or "inadvertent" insiders who cause harm; but they either do not realize it and/or do not have any malicious intent. As other previous authors have thoroughly covered this terrain involving definitions and the different types of threats insiders pose, these areas are briefly discussed in order to move quickly to the various causes and offer suggestions for prevention, mitigation, and management of insider threats at greater length and depth. Another point to address here is the fact that the author is not a cyber security expert, but instead is a psychologist who has worked in the insider threat arena extensively from research and training to providing case consultations.

## Definitions

It is critical to start with definitions so that it is clear what is being discussed. What is an insider? Some say it is any employee of an organization. Others point out that, while an insider might indeed be an employee, an insider might also be a contractor, business partner, or volunteer. No matter what the individual is called, the organization has granted the insider access to its resources. This broader definition is reflected in the Department of Defense's (DoD) Insider Threat Program Directive (2014), in which an insider is defined as:

> Any person with authorized access to DoD resources by virtue of employment, volunteer activities, or contractual relationship with DoD.

The broadest definitions of insider threat include language to convey the damage to an organization caused by an individual with authorized access to an organization's resources such as personnel, facilities, information, equipment, networks, and/or systems, whether or not they intentionally or negligently committed such damage.

Shaw, Fischer, and Rose (2009) broadly define "insider threat" as:

> Any activity by military, government, or private company employees whose actions or inactions, by intent or negligence, result (or could result) in the loss of critical information or valued assets.

US governmental organizations' definitions contain many of these same components and they typically add language to convey the damage done not only to the organization but also to US national security. Moreover, their definitions characterize the means utilized to accomplish such damage through espionage, sabotage, terrorism, unauthorized disclosures of information, or through loss or degradation of resources as seen in a typical federal government definition provided by the National Insider Threat Task Force (2010):

> It is a threat posed to U.S. national security by someone who misuses or betrays, wittingly or unwittingly, his or her authorized access to any U.S. Government resource. This threat can include

damage through espionage, terrorism, sabotage, unauthorized disclosure of national security information, or through the loss or degradation of departmental resources or capabilities.

As noted above, this chapter focuses on nonviolent threats to organizations since workplace violence and terrorism are covered elsewhere in this volume. There are two types of insider threats addressed in this chapter: malicious insider threats and unintentional, accidental, or inadvertent insider threats. Since little is known about the nonmalicious insiders and their characteristics, this chapter focuses upon the research into what is known about malicious insiders.

First, malicious insider threats that target information or information systems are defined by Cappelli, Moore, and Trzeciak (2012) of Carnegie Mellon University, Software Engineering Institute/Computer Emergency Response Team (CERT) Insider Threat Center as follows:

> A malicious insider threat is a current or former employee, contractor, or business partner who has or had authorized access to an organization's network, system, or data and intentionally exceeded or misused that access in a manner that negatively affected the confidentiality, integrity, or availability of the organization's information or information systems.

Second, unintentional, accidental, or inadvertent insider threats are defined by Cappelli et al. (2012) of CERT as follows:

> An unintentional insider threat is (1) a current or former employee, contractor, or business partner, (2) who has or had authorized access to an organization's network, system, or data and who, (3) through action or inaction without malicious intent, (4) causes harm or substantially increases the probability of future serious harm to the confidentiality, integrity, or availability of the organization's information or information systems.

Central to distinguishing the various types of insiders is to pinpoint the person's motivation for causing harm or setting the stage for future harm. Is the person doing something intentionally for malice or for good reasons which end up damaging organizational resources? Is the person naively doing something by accident that results in damage? Regardless of the type of the motivation,

the effects of each can be damaging. What follows is a discussion of the classic motivations for one type of insider threat, espionage, to begin to stimulate your thinking in this area.

## Motivations

"MICE" is the classic acronym that captures the primary motivations for espionage, and it stands for Money, Ideology, Coercion or compromise, and Ego (Brown, 2011; Fitzpatrick & Burke, 2003). At least one of these factors played a role across many spy cases.

### Money

Individuals who have an inordinate desire or need for money might be motivated to commit crimes such as fraud, sabotage, or even espionage to obtain money. During the Soviet era, the preponderance of convicted US spies showed a much greater desire for money than any other motive (Herbig, 2008). One example is former CIA operative Aldrich Ames who spied for the Soviet Union and spent the money on prized possessions such as a new home, a Jaguar, and other expensive amenities. Another example is the infamous Walker spy ring (John, Michael, and Arthur Walker and Jerry Whitworth) as each person developed a penchant for the expensive lifestyle that their ill-gotten gains afforded them (Barron, 1987).

### Ideology

People who possess or develop a political, religious, or patriotic belief system—an "ideology"—that runs counter to that which prevails in the US and/or the organization for which they work may be willing to engage in crimes such as fraud, sabotage, or even espionage or terrorism. The British cases of Kim Philby, Donald Maclean, Guy Burgess, and Anthony Blunt as well as the American cases of Julius and Ethel Rosenberg and Klaus Fuchs all showed the predominance of communist/socialist ideology (Pincher, 1987).

### Coercion

Individuals with lifestyle vulnerabilities such as gambling, sexual deviancy, and/or addictions may be coerced to commit crimes such as sabotage or espionage in order to avoid a threatened negative outcome. For example, Clayton Lonetree was a US Marine posted as a US embassy guard in Moscow who was coerced through sex to commit espionage for the KGB (Allen & Polmar, 1988).

### Ego

Individuals with an inordinate need for ego stroking may be vulnerable to such tactics in order to commit espionage. For example, individuals with an extreme degree of narcissism who have felt wounded by superiors in their organization (e.g., subpar evaluations and demotions) may seek external validation by foreign intelligence services and use espionage as a way to exact revenge for perceived slights. FBI agent Richard Miller, who became romantically involved with a married Russian immigrant who turned into a KGB asset, confessed that his main motives were ego and excitement-seeking (Eoyong, 1994).

### Additional Motives

In addition to the "MICE" motivations of money, ideology, coercion, and ego, individuals may be motivated to commit crimes against their organization as a result of *divided loyalties*. Indeed, according to Herbig (2008), spying for divided loyalties is the motive that has increased the most since 1990 with 57% spying solely as a result of divided loyalties. Money as motivation has decreased the most of all motives since 1990 as only 7% spied solely for the money; yet, money remained one of multiple motives in many cases (Herbig, 2008). In addition, other motives have emerged such as disgruntlement or other emotional reactions to individual factors and/or situational factors in the organization (Herbig, 2008). Kirkpatrick (2008) found that, in examining incidents in the critical infrastructure sector, the most

common motivation for espionage was *revenge* following a negative event in the workplace. With the shifting of many jobs overseas, automation of work, downsizing, layoffs, and many other negative events for workers, the psychological contract between employees and organizations is greatly diminished.

In addition, some organizations who have engaged in some of these practices have also proven less likely to provide extended health benefits and severance pay (Kramer, Heuer, & Crawford, 2005). Therefore, normal emotional reactions may include anger, bitterness, and/or anxiety, which may provide additional motivation to commit crimes against an organization. What follows is a discussion of some additional findings in the analysis of personal and situational factors which contribute to insider crimes. For the remainder of this chapter, the focus will be placed on intentional or malicious insiders who have perpetrated crimes such as sabotage, fraud, theft of proprietary information, and espionage. Major research programs in the US federally funded research and development centers (FFRDC's) have focused upon these issues. One FFRDC (CERT) completed important research funded by the US government and is briefly summarized here. For comprehensive information, the reader is encouraged to read the CERT Guide to Insider Threats (Cappelli et al., 2012) and go to the CERT website (www.cert.org) for a list of the numerous publications of the CERT Insider Threat Center.

## What About "Leakers"?

"Leaking" of sensitive, proprietary, or even classified information is a related nonkinetic insider crime made famous most recently by NSA contractor Edward Snowden and Army private Bradley (now "Chelsea") Manning. While no official definition of "leaking" exists in US statutes or policy, the term generally refers to unofficial or improper disclosure of sensitive, confidential, proprietary, and/or officially classified information by an insider with legitimate access to the information. Typically, such disclosures are

enacted intentionally by the insider through media or journalistic mediums. While motivations for such behavior may vary, there have been numerous cases in which substantial harm has occurred to organizations including the US government. Such behavior occurs despite the existence of many different rules, laws, policies, and ethical principles against unauthorized disclosures (Borum, Shumate, & Scalora, 2006). There exist no empirical studies of people who "leak" sensitive information, so there is no guide to psychological understanding of this group of people that could serve to supplement existing prevention and mitigation strategies. Thus, our attention turns to the literature on the personal and situational risk factors of other types of malicious insiders that have been the focus of systematic research.

## Personal and Situational Risk Factors

Beginning in 2002, CERT and the US Secret Service (USSS) collaborated on a joint study of the psychological and technical issues surrounding actual insider threat cases. They analyzed 150 insider incidents that occurred in critical infrastructure sectors between 1996 and 2002 and this "Insider Threat Study" produced two reports. One report analyzed malicious insider incidents in the banking and finance sector (Randazzo, Keeney, Kowalski, Cappelli, & Moore, 2004), while another report looked at cases across all critical infrastructure sectors and analyzed insider attacks intended to harm the organization, an individual, or the organization's data, information system, or network (Keeney et al., 2005). Results revealed that to prevent or detect insider threats as soon as possible requires management, IT, human resources, security officers, and others in the organization to understand the psychological, organizational, and technical aspects of insider attacks and how to coordinate their actions over time. The reports include statistical analyses and implications regarding technical details of the incidents; detection and identification of the insiders; nature of harm; as well as

insider planning, communication, behavior, and personal characteristics.

Many of the findings in the "Insider Threat Study" were validated in subsequent work summarized in much greater detail below. In 2008 (Kowalski et al., 2008), the joint CERT and USSS publication on illicit cyber activity in the government sector was published. The findings included the fact that there was no shared common demographic profile of the malicious insiders. The insiders were employed predominantly in administrative and support positions. Nearly all of the insiders were current employees of the target organizations. With regard to behavioral patterns, nearly half of the malicious insiders exhibited some inappropriate behavior that was noticed by others prior to the incident. These behaviors were noticed by supervisors (71%) and coworkers (57%), and included calling in sick frequently; leaving work early; demonstrating a poor attitude; and engaging in heated arguments with colleagues in the workplace. Over half of the insiders (54%) were motivated by financial gain. All insiders with this motive committed fraud. Insiders were also motivated by revenge (24%) and of those 67% committed sabotage, 11% stole confidential information, and 22% had incidents involving both theft of confidential information and sabotage. In over half the cases (56%), a specific event triggered insiders' illicit activities. These triggering events (which could include more than one per subject) included impending or actual employment-related demotion; transfer or other disciplinary action including termination (40%); financial hardship or bribe (40%); a personal problem unrelated to the organization (15%); a dispute or dissatisfaction with management, the organization, or its policies (10%); or another event (5%).

In work sponsored by the US Department of Defense, CERT (Band et al., 2006) investigated similarities and differences between insider sabotage against critical information technology (IT) systems and espionage cases in order to discover the major factors and conditions leading to both types of malicious insider behavior. Common factors found in both saboteurs and spies included: (1) the contribution of personal predispositions and stressful events to the risk of an insider committing malicious acts; (2) the exhibition of behaviors and technical actions of concern by the insider preceding or during an attack; (3) the failure of their organizations to detect or respond to rule violations; and (4) the insufficiency of the organizations' physical and electronic access controls.

Personal predispositions included serious mental health disorders, addictions, maladaptive judgment, and behavior owing to personality problems, social skills deficits, poor judgement, and a history of rule violations. For example, some malicious insiders showed a sense of entitlement, blamed others for problems, had difficulty accepting criticism, and were prone to angry impulsive acts. Such personal predispositions played a role in both sabotage and espionage risk. All of the saboteurs for which data were available exhibited the influence of personal predispositions as well as all of the spies. These personal predispositions created perceived needs which resulted in harmful actions. Often there were multiple harmful actions, including precursor activities to set up a sabotage attack (for example, creation of backdoor accounts or planting a logic bomb) and ongoing activities within an espionage case to set up, execute, conceal, and repeat the actions over time. Both sabotage and espionage insiders showed a predisposition to escalate conflicts and repeat rule violations.

Stressful events, including work-related and personal events, were found to precede insider attacks. Personal stressors included marital conflict, separation or divorce, family conflicts, and/or spending beyond means to accumulate difficult to manage debts. Work-related stressors included poor performance review/s, perceived unfairness in performance review/s, conflict with supervisor over review/s, placed on probation or terminated, or failure to be promoted as expected.

Concerning behaviors included tardiness, truancy, arguments with coworkers, poor job performance, security violations, and attack preparations. Technical actions indicative of impending attack went undiscovered due to inadequate monitoring and/or auditing in 27 of 28 IT cases studied. In every espionage case studied, there was evidence of inappropriate access to classified

information available prior to and during espionage activity that could have been discovered by auditing the spy's access. Saboteurs tended to use access paths unknown to management while spies used known legitimate means to access the information to commit the crime. Some maladaptive management responses included failure to appreciate the level of subject disgruntlement, failure to prevent remote downloads, and termination without removal of the subject's remote access or return of secure access token/s.

Shaw and Stock (2011) and Shaw and Sellers (2015) have further detailed these elements in what was entitled the "Critical Pathway." They show a progression from personal predispositions when combined with stressful personal and/or professional events to concerning behaviors that may result in malicious insider attacks unless mitigated. With Dr. Shaw's permission, the "Critical Pathway" was adapted for this chapter in Fig. 1. As such, this is not a predictive model in that if these factors are in place it cannot guarantee that an insider attack will occur. Instead, this is a descriptive model meant to capture commonalities across a wide array of cases and is presented to convey that, when this toxic mix of personal and situational factors exist, then there is a heightened risk of insider attack.

Most people when confronted with stress will find a way to cope and engage in lawful behavior. Factors that help mitigate the risk of insider attacks include having a strong family and social support system, effective management practices in the organization, early utilization of mental health resources including employee assistance programs, and many other effective coping behaviors. Unfortunately, history has shown that a small percentage of people take a different path. As depicted in Fig. 1, based upon their predispositions and their inability to resolve personally discomforting issues, including work-related stressors, many insiders will be motivated to engage in malicious behaviors believing it to be an effective way to alleviate or enhance their situation. Factors both inside and outside of the

workplace can contribute to an emerging insider threat. Family circumstances, including death and divorce, can produce heightened stress levels. Work-related events like a poor performance review, stressful work environment, or interpersonal problems can increase stress in a person's life. While everyone experiences stress in life, they are experienced to a much greater degree by people who possess vulnerable predispositions. Concerning behaviors are often observable, and may represent warning signs of a looming insider threat. For example, people may appear agitated and angry at coworkers and supervisors, be tardy to work, or demonstrate divided loyalties between the US and a foreign country, fail to report foreign travel, disregard or even break rules, live beyond their means, etc.

Additional risk factors related to individuals' behavioral patterns have been examined by researchers associated with Pacific Northwest National Lab (Greitzer & Frincke, 2010; Greitzer et al., 2009). They examined personal factors that are indications that an individual is potentially a malicious insider. They proposed using psychological indicators—the top six of their list of 12 include disgruntlement, (difficulty) accepting feedback, anger management (problems), disengagement, disregard for authority, and job performance issues. Their primary assumption is that any indicator is worth considering if the employee exhibits the characteristic to a serious degree. The research conducted thus far has found wide variability in human resources experts' judgements relating these indicators with potential risk of insider attack (Bishop et al., 2010).

What follows is additional examination of the array of personality characteristics, lifestyle vulnerabilities, financial irresponsibility, and foreign identities/loyalties that have been associated with insider threats, especially those associated with espionage. Much of the work in this area has been accomplished and/or sponsored by the Defense Personnel and Security Research Center (PERSEREC). It is included here since, much like Greitzer et al. (2009), the assumption is that

| Personal Predispositions | + | Stressful Events | + | Concerning Behaviors | + | Maladaptive Management | = | Higher Risk of Attack |
|---|---|---|---|---|---|---|---|---|
| –Medical/psychiatric disorders/addictions<br>–Personality dysfunction<br>–Social skills deficits<br>–Pattern of rule-breaking/ undetected criminal activity<br>–Competing identities/ loyalties | | –Personal<br>–Professional | | –Interpersonal<br>–Deception<br>–Security<br>–Technical<br>–Personnel<br>–Financial<br>–Social network<br>–Travel<br>–Mental illness/ addictions | | –Inattention/absence of supervision<br>–Inadequate controls<br>–Permissive security culture<br>–Summary dismissal or other actions that escalate risk<br>–Insufficient threat assessment process<br>–Inadequate investigation | | |

NOTE: Adapted from Shaw & Sellers (2015) with permission from Dr. Eric Shaw (personal communication, 9/8/2016)

**Fig. 1** Factors on the critical pathway to heightened risk of insider attacks. NOTE: Adapted from Shaw and Sellers (2015) with permission from Dr. Eric Shaw (personal communication, 9/8/2016)

if any of the following personal characteristics exist to a serious degree, it is worth considering as part of a comprehensive insider threat assessment.

## Personality Characteristics

Regarding research on the population of those convicted of espionage in the US, the following personality characteristics or disorders were commonly found when examining open source information on such cases.

## Antisocial Behavior

Shechter and Lang (2011) found antisocial personality disorder or antisocial behavior quite common in the population of convicted spies they examined. This "antisocial" dimension is characterized by a habitual disregard for lawful behavior, a propensity for dissimulation/lying, exaggeration and misrepresentation, and a lack of empathy for people and/or callousness toward others. The disregard for social norms, if pervasive, can contribute to the likelihood that an individual will perpetrate espionage and develop

significant rationalizations for doing so (Heuer, 2010; PERSEREC, 2014).

## Impulsivity/Immaturity

Individuals who lack maturity and who act impulsively may have difficulties with self-control and thus represent a risk to information security. Often such individuals are preoccupied by immediate gratification and fail to think things through prior to acting. Immature and impulsive people are a threat to information security because they can be unpredictable and show poor judgment in the decisions they make (Heuer, 2010; PERSEREC, 2014). Prior to engaging in espionage, it is likely that they would engage in other forms of rule-breaking that could be detected by an actively engaged insider threat mitigation program.

## Thrill-Seeking or "Risky" Behavior

An extreme example of impulsivity and immaturity is thrill-seeking, excitement-seeking, or what is commonly called "risky" behavior. This tendency is commonly seen within those convicted

of espionage. Such individuals tend to engage in reckless behavior including speeding, drug use, and other crimes. Such behaviors pose a threat to information security since they may be attracted to the excitement and risks associated with espionage. Individuals involved with such activity as a means for avoiding boredom could present a threat for malicious insider behavior (Krofcheck & Gelles, 2005).

## Psychopathy

The above three categories (Antisocial Behavior, Impulsivity/Immaturity, Thrill-Seeking/Risky Behavior) tend to go together and, when they do, they most likely represent a personality construct called "psychopathy." Simply put, psychopathy is characterized by impulsivity, pervasive feelings of boredom coupled with thrill-seeking behavior to quell the boredom, lack of remorse or guilt for engaging in antisocial and/or risky behavior, and a parasitic lifestyle. Psychopaths tend to be successful at impression management and can even be charismatic at times in order to get what they desire. However, they lack emotional depth and tend to exploit those around them. Individuals with psychopathic characteristics have difficulty working in jobs requiring the protection of confidential or classified information (Shechter & Lang, 2011).

## Narcissism

Narcissistic personality disorder or narcissistic traits have also been associated with espionage. Narcissism is characterized by self-centered, arrogant, manipulative, cold, and defensive behavior. Further, the thought process of the narcissist is preoccupied with fantasies of success, exaggeration of accomplishments, and even delusions of grandeur. Thus, narcissism can manifest as unreasonable feelings of self-importance, a sense of entitlement, and general disregard for others (Heuer, 2010; PERSEREC, 2014). If there

is a large enough gap between supervisory evaluations and the individual's self-appraisal, then the individual could feel quite "wounded" and seek validation from other sources including foreign intelligence services or business competitors (Heuer, 2010; PERSEREC, 2014). People with narcissistic personality disorder have been portrayed as being high risk for betraying trust (Krofcheck & Gelles, 2005) and have difficulty achieving success in jobs requiring access to confidential information (Shechter & Lang, 2011).

## Revenge

Associated with narcissism is vindictiveness to the point of desiring revenge for perceived injustices. This desire for revenge can trigger a number of responses including espionage. This tendency is often seen in narcissists since they view revenge as a way of repairing their wounded self-image and self-esteem (Heuer, 2010; PERSEREC, 2014).

## Paranoia

The thought process characterized by extreme distrust and suspicion of others and the associated anxiety this invokes is called "paranoia." People suffering with extreme paranoid thinking (whether or not it rises to the level of a personality disorder or a form of psychosis) are irrationally concerned with the intentions of others. They believe that others wish them some form of harm, and such perceptions may result in the belief that their employer is an enemy and as a result there is a risk to information security. Also, paranoia may be a signal that espionage has already commenced (Heuer, 2010; PERSEREC, 2014). An examination of the case of the FBI spy Earl Pitts revealed his paranoid thinking regarding the FBI's motives for assigning him to a high cost-of-living area (New York) among other grievances and his determination to exact revenge (PERSEREC, 2009).

## Ability to Rationalize

Those individuals convicted of espionage or other "white collar" crimes often do not view themselves as criminals due to their ability to rationalize their behavior to justify the crime/s. Over time, the individual who is adept at rationalization is capable of gradually adapting their beliefs to guard against any guilt associated with committing the offense. Thus, when an individual shows strong abilities to rationalize their behavior, it could be a contributing factor to engaging in espionage as well as sustaining involvement with espionage once started (Ashforth & Anand, 2003).

## Lifestyle Vulnerabilities

Herbig (2008) found that illegal drug use, alcohol abuse, and gambling were associated with espionage prior to 1990. Since 1990, alcohol abuse has declined to only 8% of cases, with drug abuse in only one of 37 individuals known from open sources to have used illegal drugs. However, an increase in the availability and even legalization of marijuana in some states may reverse this trend. In the group that began spying after 1990, there have been no known instances of gambling addiction.

## Financial Irresponsibility

Herbig (2008) found that convicted spies often lived a financially irresponsible lifestyle and had resorted to espionage to help pay debts. One may experience financial difficulties for a wide variety of reasons such as divorce, medical condition, educational expenses, etc. Many individuals facing financial pressures are motivated to address this situation and may make poor choices in the process. Such poor choices could include illegal activities such as theft, fraud, embezzlement, and espionage (Heuer, 2010; Kramer & Heuer, 2007; PERSEREC, 2014).

## Competing Identities/Divided Loyalties

Competing cultural identities could lead to divided loyalties between the US and the subject's country of origin. These issues could set the stage for someone to share protected information (Heuer, 2010; PERSEREC, 2014). Indeed, as noted above, Herbig (2008) found that spying for divided loyalties is the motive that has increased the most since 1990 with 57% spying solely as a result of divided loyalties. The Office of the Director of National Intelligence (ODNI) (2013) sponsored research conducted by a team of social psychologists to quantify US and foreign country attachments, develop psychological and behavioral indicators of these attachments, and develop a systematic method for evaluating national attachment and divided loyalties. The primary goal of the research was to assist security officials in assessing risk associated with individuals' foreign nexus, their affinity or allegiance to a foreign country, and whether they were an émigré, expatriate, or from another source of attachment. Initially, they performed a specialized statistical analysis (factor analysis) and discovered that all tools used to measure terms such as "loyalty," "allegiance," "national pride," and "patriotism" essentially measured the same thing and thus they settled on the term "national attachment." Research findings suggested that national attachments are not on a single continuum, with US allegiance at one end and a foreign country at the other, but instead national attachments vary on orthogonal dimensions and are best represented by a graph of four quadrants.

As can be seen in Fig. 2, when affinity for another country (in many cases this is the subject's country-of-origin), is high and affinity for the US is low, it creates divided loyalties that would heighten the risk of an insider attack of some type, including espionage due to vulnerability to recruitment by or volunteering to a foreign country. Conversely, if affinity for US is

high and affinity for a foreign country is low, then this is the least risk condition of insider threat. This research identified and validated psychological and behavioral indicators of US and foreign country national attachment. Psychological indicators of US national attachment included: (1) psychological needs satisfaction from life in the US; (2) perceived quality of life in the US in comparison to the foreign country; and (3) perceived harmony or conflict between the US and the foreign country. Psychological indicators of foreign country national attachment were psychological needs satisfaction from the foreign country and knowledge of the foreign culture. Behavioral indicators of US national attachment were pronoun usage (using collective pronouns to include oneself with the US) and engagement in US patriotic, political, and civic acts (e.g., voting). Behavioral indicators of foreign country national attachment were: (1) foreign language usage; (2) willingness to serve in the military of, run for office in, or relocate to the foreign country; and (3) frequency and closeness of foreign contacts.

## Additional Research Strategies

The focus will now shift to some of the limitations of insider threat research and possible solutions. First, insider attacks are low base-rate events and, after they occur, the data are hard to come by as many corporate entities and other types of organizations are reluctant to share their data with researchers. As a result, much of the research in this arena has been accomplished with federal funding or by federal research organizations (e.g., PERSEREC and FFRDCs).
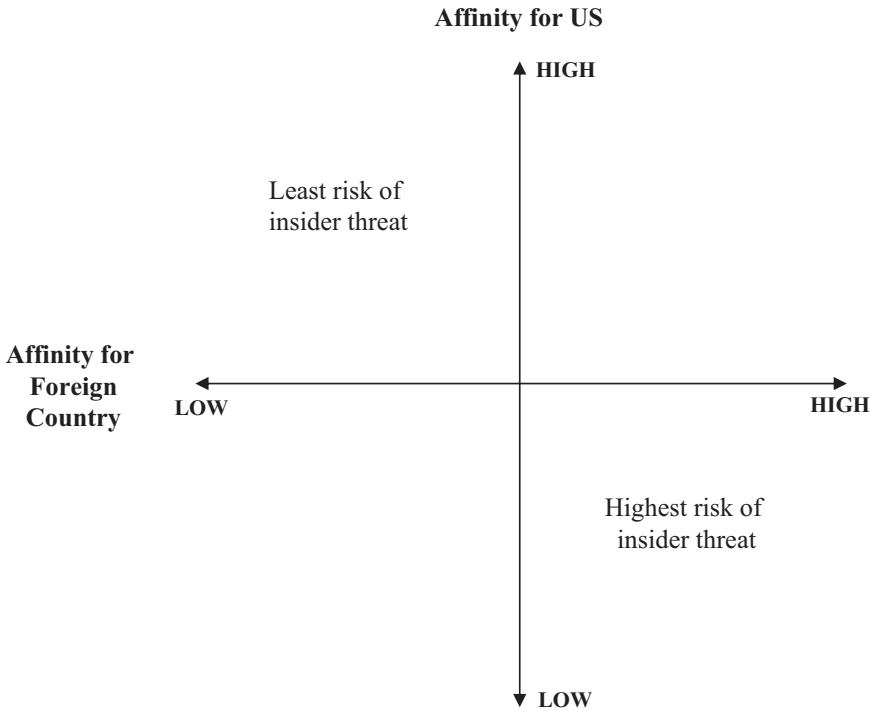


**Fig. 2** National attachments graph

Second, another limitation of the research in this area is the lack of comparison groups to determine to what extent the behavioral patterns noted above are distinguishable from the "assumed good" population. As a result, much of the research has been descriptive and not predictive in nature. Thus, the personal and situational factors that are correlated with insider attacks in the research summarized above should in no way be interpreted to imply that these factors cause the attacks. All that can be stated with confidence is that the risk of attack rises when the constellation of personal and situational factors, as described above and depicted in Fig. 1, exists. One example of interesting research that involved a control group was accomplished at MITRE. In a creative experiment complete with hypotheses and a control group, Caputo, Maloof, and Stephens (2009) compared MITRE employees' use of computer systems for malicious purposes with other employees' benign use of the same computer systems. The data analyses produced a number of interesting findings. Malicious users demonstrated a consistent "quantity over quality" approach to their information search task. They tended to perform more search queries and download as many documents about the topic as they could find. After acquiring the information, malicious participants were more likely to keep entire documents and deliver most of what they found on a CD. On the other hand, benign users were significantly more likely to synthesize the information they found. These participants gathered less information and spent time organizing that information in ways that made sense to them. The average total information delivery in megabytes was less for benign users (Mean = 69) than malicious users (Mean = 375), although this did not reach significance. Both the malicious "grab and go" and benign "synthesize and organize" behaviors could be identified through the monitored computer use events. In addition to these general approaches, the malicious users were more likely to break up their task completion into more information gathering sessions (i.e., more logons and logoffs) and access information indirectly (i.e., use of search engine cache queries), indications that they were trying to avoid the

monitoring software by using evasive tactics. Malicious users also avoided directly searching for detailed information by going through project sites and relevant people's shared information folders (i.e., people lookups and project lookups). Benign users did not show any significant signs of evading the monitoring system. More of this type of research in this area would be useful.

Another promising strategy for research on insider threat involves the use of modeling and simulation. This approach has been successfully utilized in other arenas including to address security issues in organizations (Cohen, 1999; Gupta, Rees, Chaturvedi, & Chi, 2006; Liu, Yu, & Mylopoulos, 2003). To a limited degree, modeling and simulation has been extended to insider threats (Duran, Conrad, Conrad, Duggan, & Held, 2009; Kandias, Mylonas, Virvilis, Theoharidou, & Gritzalis, 2010; Martinez-Moyano, Rich, Conrad, Andersen, & Stewart, 2008; Moore, Carley, Collins, & Altman, 2015). This work shows the value of modeling and simulation in service of thoughtful analysis of security risks in organizational settings. Recently, a special issue of the refereed journal, *Computational and Mathematical Organizational Theory*, was devoted to modeling and simulation of insider threats. In their introduction to the special issue, Moore, Kennedy, and Dover (2016) pointed out the utility of modeling and simulation in addressing the limitations of research on insider threat. First, to address the problem of lack of data due to low base rates and lack of sharing data, modeling and simulation can be used to generate synthetic data to consider when developing hypotheses to test in research. Second, to address the issue of the lack of comparison groups, modeling and simulation can generate control and/or other comparison groups. The special issue outlines the use of five types of modeling and simulation approaches that have been applied with success in insider threat research including Agent-Based Modeling (ABM), Bayesian Belief Networks (BBN), Game Theory (GT), System Dynamics (SD), and Network Analysis (NA).

A final research consideration should be noted. Behavioral phenomena are variable in

nature and can change over time. For example, Herbig (2008) noted a shift in prevalence of the addictions (drugs, alcohol, and gambling) for those who started espionage activities after 1990 (dramatic decreases in prevalence rates). It requires much effort to continually research important behavioral characteristics of malicious insiders, but as the nature of the offenses morph over time, it is important to continue to update our knowledge of the perpetrators of these crimes especially when the predominant motivations of the crime group in question shift.

## Prevention, Mitigation, and Management Strategies

The "insider threat" is a single construct covering a variety of different threats. To date, no single approach has emerged as the preeminent solution. Any approach to solutions will have difficulties since the insiders have legitimate access rights for their job and they can use these accesses for malicious purposes. Organizational solutions to the "insider threat" problem typically combine technical, socio-technical, and sociological/organizational/psychological components. Technical solutions usually include access controls, monitoring patterns of information use, and predictive modeling. Socio-technical approaches are at the boundary of technological approaches and sociological approaches and involve policies, monitoring and profiling, prediction, and forensics (see Cappelli et al., (2012) for a thorough review of these various approaches). What follows is an examination of the nontechnical sociological/organizational/psychological solutions that could complement technical solutions to the insider threat prevention, mitigation, and management problem set.

When it comes to socio-psychological solutions in organizations, it is the contention of the author that the focus should be placed upon diverting someone from the critical pathway before they formulate a "crime script" for an insider attack. A robust prevention program should include sophisticated psychological assessment screening of applicants, training supervisors, and

a well-developed employee assistance program (EAP). It is clear from the work summarized above that supervisors are in the first line of defense against insider attacks as they have been the ones more aware of the insider's concerning behaviors. Too often, supervisory inattention and even exacerbation of the insider's problems have contributed to the attack trajectory rather than diverting it. Too often, in post-attack analysis, supervisors that were implicated for both actions they took and actions they failed to take were not given sufficient training in adequately addressing personal crises and conflicts that manifest in the workplace either overtly or in poor performance. Thus, it is suggested that organizations devote resources to educating all front-line supervisors on how to intervene effectively with the variety of concerning behaviors noted above in consultation with human resources, upper management, and EAP. Speaking of EAP, it is critically important to have a robust EAP capability in order to address employee issues and to divert potential malicious insiders from the "critical pathway" outlined above. While impractical for most organizations, it is recommended where possible to implement a comprehensive psychological assessment program for applicants. Such a program typically includes a thorough psychological battery of tests followed by a clinical interview conducted by a licensed clinical psychologist, and is one way to detect such pronounced behavioral patterns and deny accesses (and/or security clearances) for those who exhibit such extreme tendencies. This represents a "best practice" in the intelligence community among the few agencies who do such preemployment screening prior to granting security clearances.

Some have argued (Eoyong, 1994) that the cost of psychological screening is too high and that it cannot detect spies. While these points may seem valid on the face of it, a closer look is in order. First, psychological screening costs are minimal (e.g., ranging from $300 to $1000 per person) while full background investigations are estimated to cost $100,000 or more. Second, no respectable psychologist has claimed that they have developed a procedure to screen out spies. However, licensed clinical psychologists with

proper training and experience can screen out applicants who fail to meet the psychological standards inherent in the ODNI directive for access to classified information (ODNI, 2008a, 2008b). Further, one should not only count the costs of the spy cases; one must count the cost of the host of other criminal activities, sub-criminal security offenses, and other counterproductive work behaviors wrought by individuals exhibiting some form of psychopathology. It would be interesting to compare across the Intelligence Community the numbers of people per 1000 caught/convicted of crimes, fired for cause, or allowed to resign in lieu of firing for a myriad of "insider threat" offenses, including mishandling classified information, theft, fraud, sabotage, leaking, etc. In other words, a robust prevention program is not solely in place to prevent spying, etc., it is instead about prevention of a range of criminal or sub-criminal security offenses and the variety of ways dysfunctional behavior can prevent productivity and effectiveness.

Finally, it is recommended that organizations consider constructing a multidisciplinary threat assessment team to evaluate possible insider threats and not solely rely on technological solutions. Such teams would not only evaluate the insider threats that have been discussed in this chapter but also "kinetic"—potentially violent—insider threats as well. Guidance for standing up a threat assessment team may already be available by the time this book is in print at www.FBI. gov or one can check with the local law enforcement agency to obtain a copy of the monograph entitled, "Making Prevention a Reality: Identifying, Assessing and Managing the Threat of Targeted Attacks" (Amman et al., 2017).

To conclude, no single profile of a malicious insider exists. There exists a predictable progression along a "critical pathway" from patterns of personal predispositions when combined with stressful personal and/or professional events leading to concerning behaviors that may result in malicious insider attacks unless mitigated. There exists no psychological test or other assessment technique to ferret out who will become a malicious insider. However, an organization may choose to employ psychological assessment to

rule out those who pose threats of a variety of types through the approach advocated for in this chapter. Other components of such an approach would include the development of robust supervisory training programs and employee assistance programs.

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# Investigative Uses of Hypnosis

Frank DePiano and David DePiano

## Definition and Descriptions of Hypnosis

Discussions and definitions of hypnosis can be seen from earliest writings through current times. For example, the Roman Historian Plutarch Pyrrhus of Epicus described curing cases of colic with forms of suggestion (Wolfe & Rosenthal, 1948), while Bernheim (1947) discussed ancient Egyptians using "magnetic stones" to cure ailments such as gout, hysteria, toothache and head pain. More recently, the Executive Committee (2014) of the Society for Psychological Hypnosis, in an attempt to simplify communications about hypnosis, offered its official definition of hypnosis as "A state of consciousness involving focused attention and reduced peripheral awareness characterized by an enhanced capacity for response to suggestion." The Division leadership went on to clarify that "While there are substantial variations in theoretical understanding of these phenomena, the above definitions were created with an interest

in simplifying communication regarding hypnotic phenomena and procedures within and between fields of research and practice, and so are intentionally largely atheoretical." The reader can draw their own conclusions regarding the success this group has had in simplify definitions of hypnosis.

Confusion and controversy over definitions of hypnosis is apparent in many author's opening comments about hypnosis with these introductory statements reflecting the lack of a generally accepted definition. Ernest Hilgard (1965), in his classic work Hypnotic Susceptibility, stated "Despite this (hypnosis') long history, it is hard to specify just what hypnosis is" (p. 5). Martin Segall (1975) opens a discussion intended to acquaint people with hypnosis on The Questions They Ask About Hypnosis, with the daunting statement, "This is a difficult question to answer because … There has never really been a completely acceptable theory about hypnosis or a truly scientific explanation of what happens in this state" (p. 1). Donald Liggett (2000) opens chapter "Overview" of Sports Hypnosis with the statement, "Although hypnosis has fascinated and mystified people for thousands of years, scientists still do not agree about the exact physiological and psychological nature of a trance or why people behave differently in a trance than out of a trance" (p. 3).

While little agreement exists, there is no shortage of definitions and descriptions of attributes of

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hypnosis among practitioners and researchers. In fact, definitions of hypnosis abound leading to many phenomena and events being attributed to hypnosis. So many claims being made about hypnosis, some legitimate and some sensationalized, have led to wild swings in the acceptance and the perceived legitimacy of hypnosis. Perhaps Michael Yapko (1995) summed the state of affairs best in his work Essentials of Hypnosis when he begins a discussion of hypnosis stating, "Hypnosis as a word has been overused to the point of its being robbed of any real meaning. When one word comes to describe as many different experiences as hypnosis has, there is ample opportunity for misunderstanding, mislabeling, misconception and, ultimately, confusion" (p. 17). T. X. Barber (1995), most radically, questioned the utility of the term and construct of hypnosis and frequently only referred to the term "hypnosis" with quotation marks suggesting the nonexistence of the construct.

The lack of agreed upon definitions of hypnosis begs the question as to the value it brings to the investigative process. The answer is that it can still be a useful tool to be used during the investigation, but the guidelines for its use must be carefully followed. These guidelines will be discussed later in the chapter.

## Early History

While hypnosis-like events have been describe for a few thousand years, serious attention was not given to the phenomena until the eighteenth century. Anton Mesmer first studied the influence of the planets on behavior then generalized this planetary influence to magnetism. His belief was that magnetic influence could have profound effects on individuals. Later, his theory of hypnosis included a belief that this magnetism was held by individuals who could pass their magnetism onto others and thus produce trancelike effects. Mesmer, who possessed showman's-like qualities, conducted grand séances. These well-known Parisian séances as they were called, drew worldwide attention to Mesmer and his work. The claims made by Mesmer for his magnetism were

significant with demonstrations of curing convulsions, hysterical blindness, neck and other muscular spasms, etc. The claims related to these treatments were both immediate and profound with all able to see the results of Mesmer's work.

The events produced by Mesmer were dramatic. Subjects would breath erratically, faint, moan, and often show immediate symptom resolution. The theoretical explanations made by Mesmer, though, were ultimately the cause of his demise and led to significant loss of credibility of hypnosis. His explanation for the hypnotic outcomes was that physical energy passed from the hypnotist to the object (person) of hypnosis. Mesmer further believed that individuals varied in how much of this "animal magnetism" they possessed. And, presumably, Mesmer possessed a great amount of this energy.

These claims led to a great deal of controversy regarding the efficacy and the nature of hypnosis to such an extent that Mesmer shrouded his techniques and training in secrecy requiring all trainees to remain completely silent about their work. As the effects of hypnosis became widely discussed and often times exaggerated and the secrecy of the events created great mystery, many prominent European citizens began to demand that the legitimacy of the hypnotic events be studied scientifically. As considerable pressure mounted on King Louis XVI, he eventually commissioned an investigation through the Royal (French) Commission on Science and the Royal Society on Medicine. None other than America's Ben Franklin was named to chair the commission. While Franklin was well into his 70s and probably not fully fit to complete the investigation, his credibility had grown to the point that his chairmanship provided legitimacy to the investigative process.

In short, Franklin's investigation was to seek an understanding of the physical magnetism which had been put forth by Mesmer as the active ingredient causing the hypnotic outcomes. A simple, but well-conceived, study was designed where some trees were "magnetized" while others were not. Subjects were falsely told that some trees that were not magnetized were, in fact, magnetized while subjects were told that other

trees were magnetized when, in fact, they were not magnetized. Results of this simple study were quickly reported to the Commission and King, and profoundly impacted the credibility of Mesmer and his work. In the study, subjects touching a magnetized tree showed no effect when they were told that the trees were not magnetized; however, subjects touching trees that they falsely believed to be magnetized showed trance-like results. Since the belief that a physical energy caused the hypnotic effect was so much a part of Mesmer's theory, the study resulted in the discrediting of Mesmer and hypnosis. Unfortunately, "the baby was lost with the bath water" because the psychological effects caused by the individual's beliefs were largely ignored and hypnosis slipped into one of its discredited periods. Following these events, hypnosis was viewed more as parlor trickery and the domain of charlatans. Not until the work of James Braid and Jean Martin Charcot some 75 years later, did hypnosis once again gain respectability as a valued area of scientific study. The hypnotic events, previously referred to as Mesmerism or Animal Magnetism, were renamed by Charcot who referred to the events as hypnosis (Forrest, 1999).

## Descriptions of the Hypnotic State

With so little agreement among researchers and practitioners as to the nature of hypnosis, how is the introduction of its use into a fact oriented field such as criminal investigation legitimate? One can again turn to the work of Hilgard for an answer. In response to the criticisms regarding lack of consensus regarding definitions of hypnosis, Hilgard (1965) states, "Many Psychological states are difficult to define without pointing to familiar examples of them. Hypnosis aside, it is not easy to be precise about an alert state, a drowsy state, a sober state, an intoxicated state, an elated state or a depressed state. Each of these descriptive expressions has meaning when it refers to very clear or typical examples of the state, or in contrast to its opposite; hence the terms, while imprecise, are not meaningless, even though the exact boundaries are hard to

state" (p. 5). Likewise with hypnosis. Despite the lack of consensual definitions, it can still have functional value when the process is accurately described.

In providing a functional description of hypnosis, Hilgard (1965) offers that the state has consistently been described in the following ways:

1. *A subsidence of planning function*. Hypnotized subjects will often show a loss of initiative. Subjects will most often wait for direction to be given to them before acting.
2. *A redistribution of attention*. This change in attending will often take the form of a diffusion of attention with a generalized loss of environmental attention.
3. *Availability of visual memories from the past and heightened ability for fantasy-production*. This description of the hypnotic state is especially relevant to the discussion of recall, memory and criminal investigation and we will discuss this item again later in the chapter.
4. *Reduction in reality testing and a tolerance for persistent reality distortion*. Typically, individuals in normal day-to-day states are constantly shifting visual scan, adjusting position, touching self and other objects. These activities serve to stimulate our senses and refresh the information brought through the senses about our environment. Hypnotized subjects show a marked decrease in these activities.
5. *Increased suggestibility*. While suggestibility is part of the normal human condition, it is measurably increased during hypnosis.
6. *Extended role behavior*. As described by Sarbin and Anderson (1965), hypnotized subjects move beyond simple acts and are able to perform complex and prolonged acts.
7. *Amnesia for activities within the hypnotic state*. This spontaneous amnesia, while not found in all subjects, may be consistent with a high degree of hypnotic susceptibility.

These descriptors allow for the serious study of hypnosis and how it impacts the interrogation

process. As a result of the development of good descriptions of the hypnotic state, several scales have been developed in order to better measure the presence and depth of hypnosis experienced by a subject (see for example Weitzenhoffer & Hilgard (1959) Stanford Hypnotic Susceptibility Scale, Form C).

## Memory and Hypnosis

A detailed discussion of laboratory studies on memory and hypnosis literature goes beyond the scope of this chapter. Summarizing, most controlled laboratory studies have failed to show strong evidence in support of enhanced recall due to hypnosis. Little new evidence has prevailed since Barber's comprehensive literature review conducted in 1965. After reviewing major laboratory studies of hypnosis and recall Barber (1965, 1995) concluded that hypnosis and hypnotic inductions without controls for task motivating suggestions did not produce enhanced recall. Salzberg and DePiano (1980) looked specifically at the separate impact of Task Motivation Suggestions with and without hypnosis. This study, through the use of hypnosis simulators, and by keeping the experimenter blind to the hypnotized condition of the subject, also controlled for experimental bias. The results provided support for Barber's findings that task motivating suggestions were an effective tool in enhancing laboratory recall with or without hypnosis. More recent work on laboratory recall and hypnosis has not departed significantly from these earlier findings.

While little support in the laboratory for the effectiveness of hypnosis in enhancing recall can be found, many case reports from practitioners in the field continued to suggest that hypnosis can be useful in assisting law enforcement officers in their investigations. The first author initially learned of hypnotically enhanced recall through an intervention conducted by Herman Salzberg (1977). A man approached local police with a confession that he had shot another man. While offering complete cooperation about the shooting, the perpetrator could not recall where he had placed

the body. Failing to have a body in a potential murder case is of no small consequence to police. To help with memory, the police requested that Salzberg interview the perpetrator while hypnotized. The subject initially cooperated with the induction, but then at the conclusion of the hypnotic session claimed that he was simply going along with the events and was not really hypnotized. The police, with few other leads, followed the descriptions given by the subject despite his reports of simply making up a story to appear cooperative. Following these leads police were led to the remains of the victim.

Numerous other cases were reported. Perhaps most notably, Kroger and Douce (1979) worked with the FBI on consecutive cases of witness interviews using hypnosis. Several high profile cases were presented including one case that received significant national media attention. This case involved the Chowchilla kidnappings in California. In the summer months of 1976, 26 school children, along with their bus driver, were kidnapped and hidden in an underground cave. The bus driver was able to escape from his captors and subsequently interviewed by police, but could remember few details about the traumatic events experienced by the driver and children. While hypnotized, however, the driver was able to recall a license plate number accurately within one symbol from one of the vehicles involved in the events. This information provided leads for the law enforcement agents which led to locating the kidnapped children. Kroger and Douce (1979), after their consecutive case reports, concluded that hypnosis could be of assistance to investigators engaged in criminal detection. The authors also cautioned, however, of the risks associated with inaccurate or confabulated recall.

Other well described cases were reported by Shafer and Rubio (1978) while working with various police departments and attorneys in and around Orange County, California. In their work, hypnosis was introduced to witnesses who previously could recall few details related to crimes they had witnessed. The authors reported that in 10 of 13 cases, hypnosis facilitated the collection of information that materially helped in solving the crime.

## Discrepancy in Findings

In examining the results from research studies as compared to many of the clinical reports, conflicting conclusions can be drawn. Let's look closer at some of these reports to determine explanations for these differing conclusions. Following T. X. Barber's methodological critiques of 1965, greater methodological controls were initiated in conducting hypnosis-related research. These refinements included controls for task motivating instructions, controls for experimenter bias and controls for expectancy effects on the part of the subject. Controls for task motivation instructions included efforts to separate out the effects of urging and motivating subjects versus hypnosis per se (Evans & Orne, 1965). Controls for experimenter bias including controls for the experimenter, either intentionally or inadvertently, communicating expectations and/or information to the subject. For example, an experimenter knowing that the subject's fourth birthday occurred on a Tuesday, might communicate this information to the subject, thus falsely creating an appearance of accurate recall of that day. Experimenter bias is frequently controlled through the use of simulators. In a simulator design nonhypnotized subjects, as well as hypnotized subjects are presented to the interviewer/hypnotist who is not aware of the condition of the subject. In this way influence cannot selectively be given to only hypnotized subjects. Likewise, controlling for expectancy effect where subjects actually "hold back" or suppress initial or baseline responses so as to show improvement on subsequent responses became an important methodological control when studying the effects of hypnosis on recall (Zamansky, Scharf, & Brightbill, 1964). The hold-back effect can best be controlled by collecting a baseline on all subjects, both those who are hypnotized and those who are not hypnotized.

Taken as a whole, as these controls were implemented, studies tended to show fewer hypnotically enhanced gains. However, a closer look at these investigations as compared to the systematic case reports showed other, perhaps more significant, differences between these cases and the laboratory studies. First, studies from the laboratory generally used word lists, nonsense syllables, symbols, color patterns, prose, and other nonmeaningful and noncontextual information. Next, the controlled laboratory studies most often presented material that was to be intentionally learned. Finally, the laboratory studies were generally presented in a neutral or non-emotionally arousing setting. This is contrasted with the crime setting where meaningful information and contextually relevant information is sought, the information is usually incidental to the primary concern of the subject (i.e., What was the color of the assailant's hair or eyes?); and finally, the information was first encountered in a highly emotional and arousing setting (DePiano & Salzberg, 1981). Virtually all of these case reports included these variables. When studies have sought to include these variables, more promising results, in support of hypnosis enhancing recall, may be found.

## Hypnosis' Use in the Legal System

As hypnosis gained popularity in the USA throughout the 1960s and 1970s, it became a more common tool for law enforcement during the investigative stages of crimes. As a result, more Courts were faced with deciding whether testimony derived from "hypnotic sessions" is reliable enough to be admissible evidence in a Court of Law, both at trial or during pretrial proceedings.

By the 1980s, it became commonly accepted among Courts that, while hypnosis was effective for gathering more evidence, it was just as likely to cause a witness to fabricate false memories as it was to refresh genuine recollection. This caused a trend toward harsher verification requirements and even per se exclusion of any testimony that was first solicited in response to hypnotic induction. (See for example State v. Hurd, 432 A 2d 86, [N.J. 1981] and Rock v. Arkansas, 283 U.S. 44, 57 [1987]). Under these rules, testimony in criminal cases would typically be limited to that given by witnesses, including the defendant in her own defense, who were not hypnotized. Alternatively, in instances where a witness who had been

hypnotized was going to testify to memories that were not refreshed through hypnosis, the burden would be on the party presenting the evidence to make a showing that the memories to be testified to were recalled prior to hypnosis.

That trend slowed in 1987 when the US Supreme Court issued a landmark decision regarding the use of hypnotically refreshed recollection as evidence at criminal trials (see Rock v. Arkansas, 483 U.S. 44 [1987]). The Rock Court found that Arkansas' per se exclusion of any testimony derived from hypnosis arbitrarily and capriciously prevented a criminal defendant from presenting evidence that may be reliable in any given case. As such, the Supreme Court reasoned that a per se exclusion of this sort of evidence is unconstitutional since it unfairly and inappropriately restricted a defendant's right to present all witnesses (including herself) and all testimony he or she desired in their favor at trial.

The Rock opinion also made an impact because, at least when the witness to provide testimony facilitated by hypnosis is the defendant herself, it shifted the burden onto the party seeking to exclude hypnotically refreshed testimony to show "clear evidence" repudiating the validity of all post-hypnosis recollections in order to exclude any such testimony (Rock vs. Arkansas, 483 U.S. 41 [1987]). In other words, all testimony, including that derived through hypnosis, defaulted to admissible, unless there is a showing that it is untrustworthy. This effort is typically done through two methods. First, through use of expert testimony, the party seeking exclusion may attack the methodology used by the clinician who utilized hypnosis to refresh a witness' recollection. Typically, if "leading questions," or those where the sought after answer is suggested in the question, are used, this will decrease the trustworthiness of the refreshed testimony and may lead to inadmissibility. The second attack will be directly against the testimony itself. This is done by pointing to evidence from other sources that refute the possibility or at least probability of the refreshed testimony's accuracy. These factors will be considered by the trial court together, in the context of other record evidence, including

that which may corroborate the testimony arising from hypnotic induction, before any decision will be made regarding admissibility (See State v. Hurd, 432 A 2d at 89 [1981], and Rock v Arkansas, 485 U.S. at 56–57 [1987]).

Though the core of the Rock opinion has stood unchallenged, namely providing the presumption that a Defendant may take the stand and testify even if that testimony was first given under hypnotic induction, courts have chipped away at the scope of its impact. Specifically, courts have trended toward excluding hypnosis-induced testimony from witnesses other than the defendant herself (see State v. Moore, 902 [N.J. 2008]). Currently, 26 states, the slight majority and vast plurality of US States that have addressed this issue, apply variations on the per se inadmissible rule for hypnotically induced testimony from witnesses other than the Defendant herself. Fifteen jurisdictions have adopted a "totality of the circumstances approach" or procedural safeguard requirements when faced with deciding whether to admit this type of testimony into evidence. In this approach, courts look at the methodology applied in deriving hypnotically induced testimony. Only if the context suggests that the testimony is reliable and accurate will it be admissible. Four states consider hypnotically refreshed testimony per se admissible. In those jurisdictions, it is up to the jury or other finder of fact to weigh the credibility of such testimony after it is admitted into evidence by the court.

Finally, while there are certain evidentiary requirements that must be met for testimony derived directly from hypnosis to be used in a courtroom, there is no prohibition on the use of evidence gathered as a result of leads provided from the hypnotically refreshed recollection of a witness. In other words, though a litigant in a criminal suit may be able to challenge the admissibility of testimony provided by a witness derived from hypnotic induction, there is no restriction for use of any evidence uncovered as a result of that testimony. Thus, courts have left law enforcement officers to use hypnosis as they see fit to develop facts as part of their investigations.

## Summary and Conclusions

Hypnotic phenomena have been described dating back to antiquity with its credibility fluctuating between a miracle cure-all to blatant charlatanism. While a well-accepted definition has not been agreed upon, fairly consistent descriptions of behavior in response to hypnotic inductions do exist. Hypnosis has been used in a variety of settings and with a broad range of objectives. This chapter specifically discusses the use of hypnosis in aiding recall and addresses its role in the Criminal Justice System.

In answering the most salient question of "Does hypnosis aid in recall and facilitate the investigative process?" the answer appears to be "yes" but under select circumstances and with caution. The affirmative answer also needs to be further refined to reflect the point within the investigative process and purpose of the hypnotic intervention.

Highly suggestible subjects can readily be influenced to provide responses suggested by the interviewer. Therefore, it is essential that the person conducting the hypnotic interview remain neutral in eliciting responses. If possible, the interviewer should be unaware of the content sought. Regardless of the care taken, there still exists the possibility of confabulated information given by the subject. In cases when the interview involves criminal or civil investigation all aspects of the interview should be video recorded. This recording should be started at the very onset of the interview as the interviewer and subject enter the session-room. Next, the information obtained during the hypnotic interview should only be used to seek leads that can be further corroborated, and never used to confirm information already obtained. Suggested material, regardless of its accuracy, can readily be "recalled" and viewed later by the subject to be "actual" recall. Thus, while new relevant and accurate information can be elicited during the hypnotic interview, inaccurate information may also be elicited. The consequence of using inaccurate information in confirming material is obviously problematic and

severe. Consequently, all information uncovered during the hypnotic interview should be viewed as material to be corroborated. Finally, it is not clear as to which aspect of the hypnotic interview is the actual "active ingredient" that facilitates recall. Therefore, a standard procedure that includes (a) an introduction to hypnosis, (b) an assertion of the importance of the material sought, (c) suggestions of security and safety, (d) task motivation suggestions, (e) substantial debriefing of the subject, and (f) video recording of all interactions between subject and interviewer, should be used in all cases involving the investigative process.

The timing of the use of hypnosis within the investigative process also is an important consideration. Early in the investigative process, where leads are still to be generated, is generally the best point at which hypnosis of witness or victims is initiated. Late in the investigative process, where earlier leads or information obtained is sought to be confirmed, is problematic and generally should be avoided. While useful information may still be obtained at this point, the risk and dangers of misinformation being obtained is greater and can cause numerous evidentiary and validity problems. A useful guide for conducting interviews and for general use of Forensic Hypnosis is the *Clinical Hypnosis and Memory: Guidelines for Clinicians and for Forensic Hypnosis* (Hammond, 1994).

From a legal perspective, it appears that evidence derived from hypnotically induced memories is generally admissible. That is, unlike evidence derived from illegal searches and seizures, which is considered "fruit of the poisoned tree" and generally not admissible, evidence derived from hypnotically induced evidence is generally admissible in courts. Further, recollections directly derived through hypnotically enhanced recall depending on the jurisdiction and the credibility of the recall, may be admissible. This appears to be especially so, in criminal proceedings when the defendant brings forward hypnotically enhanced recall in his/her defense.

## Case Examples

Several cases are presented next, in order to provide examples of the types of cases sometimes seen using hypnosis in the justice system. In addition, specific techniques used in working with hypnosis in the investigative process are provided.

## Case of Serial Murder and Thanatophilia

A 29-year-old black male, Ted, was serving consecutive life sentences for his conviction of murder and thanatophilia of three prostitutes. While in prison, Ted remained cooperative, but became noncommunicative and was assigned to the psychiatric department of a state prison system. He was referred to the prison psychologist by the staff of the psychiatric department to determine if communication could be reestablished, and if he could be assisted so as to be returned to the general prison population. Upon initial session with the psychologist, he had been incarcerated for one year. Ted's conviction followed a series of highly publicized murders that included sexual contact with the victim's remains. The perpetrator had picked up three prostitutes over a six month period of time. Once isolated, the prostitutes were brutally murdered and then sexually manipulated.

The inmate was accompanied to the office by a guard, who instructed him to sit down. He immediately, but slowly complied. Once seated he stared straight ahead making no eye contact with either the guard or the examiner. In response to a few questions, the inmate provided no response, and remained mute. Ted was then instructed to close his eyes and extend an arm. He complied in a slow and deliberate manner. Next, suggestions were given for relaxation. During these suggestions, the subject displayed a great deal of twitching and grimacing, none of which was present prior to the suggestions. After about 30 min of relaxation, suggestions for an arm levitation were introduced. Again, Ted responded to the levitation suggestions but in a deliberate and

slow manner. He was next given suggestions for time regression to "a time that was pleasant and relaxing." He was then asked if he reached such a place to which he responded with a shaking of the head indicating "no." When asked to describe where he was, Ted slowly and deliberately began to make movements with his lips and mouth. After about 5 min of urging, Ted slowly responded verbally, "at school … with Diane" (records indicated that the first name of his mother was Diane). After about 10 min of relaxation, suggestions were given associated with this scene. Ted then was asked to think about a time of one of the murders, to "pick whichever he chose; whichever he could remember best." Ted's body jerked forward, causing the guard, who remained in the room for the session, to stand up and move toward the inmate as a security measure. His face became contorted and he made various grunting sounds. He was asked if he could picture the victim in response to which he nodded "yes." Next he was asked to describe the scene, in his own words. It took him several minutes to form the words, "bitch, f_____ bitch." With clinched fists he made a lunging action as if to strike. After several more minutes of heavy breathing and twitching, Ted stated, "sick, I feel bad, sick." He was given suggestions for relaxation and provided a pleasant scene (outdoors within the facility which overlooked a river and a wooded area) to think about. Suggestions were given for waking and alertness to which he responded and returned to the manner in which he first presented. The guard escorted Ted back to his cell.

The case was staffed with other service providers who were in regular contact with the inmate. The consensus of this meeting was that it could be of assistance to continue sessions as it might help with his adjustment in the prison setting. A second session was scheduled.

The inmate arrived at this session, again escorted by a guard. When instructed to sit, Ted immediately complied and spontaneously closed his eyes. This was interpreted by the examiner as a desire on Ted's part to participate in another session. Again relaxation followed by arm levitation was suggested with the inmate responding more quickly than in the first session. In this

session, the subject spontaneously began to form words, saying "I see her; I see her." Again Ted referred to her in a disparaging way, then, remaining seated, lunged forward in the chair. After two more lunges, Ted's body became calm (the murders consisted of partial or full decapitation of the three victims) and he leaned back in his chair. As he did so he was asked "what do you see now?" In a somewhat normal voice and manner of speaking he stated, "Blood all over; all over … on my face … all over." "What else do you see?" he was asked, to which he replied "her neck, blood is coming; blood is coming out; it's opening; it's opening." Next Ted was asked, "Is it upsetting to watch?" to which he did not respond. After about 2 min of silence he repeated "blood all over; her blood." The session was concluded with relaxation suggestions and suggested images of the pleasant outdoor scene at the prison.

Two days later a staffing occurred. Guards reported three assaults from the inmate, one against a guard and two against fellow inmates. While remaining nonverbal, other staff reported that he was making loud moaning and yelling sounds. Further, Ted was reported to be pacing within his cell (previously he was described as "almost catatonic" in his cell). The advisability of continuing sessions with this inmate was discussed with the warden, whose preference was to continue working with him. The warden remained hopeful that with work and improvement, the inmate could be moved out of special services (which were seriously overcrowded) and back into the general prison population.

A third session was scheduled in which Ted appeared more restless and agitated. Further, the guard accompanying him to the session reported that "he was much more difficult and less cooperative." After considering all available information it was decided not to continue the exploration that previously was sought. This exploration was thought not to be in the interest of the inmate and, in fact, the exploration of the bizarre behavior exhibited by Ted, was viewed to be causing deterioration of his behavior. Instead a relaxation session was presented.

This case illustrates the use of hypnosis with a psychiatric and nonverbal inmate. While non-communicative, the individual responded quickly to suggestions and hypnosis. The case also illustrates a situation in which hypnosis, at least in the context of seeking to uncover violent and bizarre events, was likely to be causing a deterioration in the individual's behavior. In a sense, the needs of the institution were in conflict with the needs of the individual. If the inmate could become verbal, more interactive and more aware of his bizarre behavior, there was a likelihood that he could be transferred back to the general prison population and thereby relieve the overcrowding of the special services department. On the other hand, as the individual became more actively aware of the events leading to his conviction, his general behavior deteriorated quickly and significantly. When weighing the conflicting needs between individual and institution, it was determined that professional ethics demanded that the best interest of the individual be given priority.

## Case of the Murdered Grandmother

A 24-year-old white male was referred to the prison psychologist by the prison guards. He had been convicted of murdering his 83-year-old grandmother by bludgeoning her with a baseball bat. At the time of referral, he was beginning the first year of a life sentence in a State Prison. Guards described him as a cooperative inmate who expressed remorse over the death of his grandmother.

Upon first meeting with the psychologist, the inmate, George, appeared bewildered and confused. He reported no recollection of having killed his grandmother and reported that at the start of his trial he believed that he was wrongly accused of murdering her and in fact pled not guilty. During his trial, as he witnessed the evidence brought forward, he became convinced of his guilt and light-heartedly reported to the examiner that if "I were a juror, I would have 'voted guilty'."

He expressed great remorse over the killing of his grandmother and, in fact, reported that he loved her very much. His parents, who were both addicted to drugs, had relinquished the raising of

George, at age four, to the grandmother. George claimed that the grandmother sacrificed for him and that he felt loved by her.

At age 20, George became involved in drug abuse, first using marijuana and later heroin. This caused conflict between George and his grandmother. George recalled on several occasions taking money from his grandmother's pocket book and from a money drawer in her bedroom. This resulted in greater tensions between him and his grandmother.

During the first session, George reported believing with certainty that he had killed his grandmother, but also reported having no recollection of the killing or the events immediately preceding the murder. This lack of recall was of concern to George as the battering of his grandmother was brutal. She had been struck in the head multiple times with a baseball bat and left to die without any call for medical assistance. George could not remember or understand why he would do this to a person who had taken care of him, loved him and whom he loved. His request of the psychologist was to assist him in recalling the circumstances around the murder of his grandmother. His rationale for wanting to know the events surrounding the murder was that if he did not know what happened, he feared future similar episodes. He explained that he would be eligible for prison release in his 40s, and he hoped by recalling, he would have better understanding and thereby better control over his anger. A second session was scheduled in which a plan to use hypnosis was presented in order to help George recall the events surrounding his crime.

After a brief description of hypnosis and the procedure to be used, a progressive relaxation session was followed by an arm levitation induction. George appeared to respond well to the induction with a rapid and complete arm levitation. While hypnotized, George reported that on the day of the crime, he had been drinking with friends, returned home and asked his grandmother for money. George recalled that she refused his request and, in response, George slammed his hand on the kitchen table and

stormed into his bedroom. Several minutes later, George recalled that his grandmother followed him into his room while confronting him about his substance abuse. George recalled her "going on" for some time and that he became angrier with her. He demanded she leave his room to which she responded it was "my house" and that she would not tolerate drug use here. George then recalled her telling him that this was what his parents had done and she would not let it happen again. The exchange further deteriorated as George threatened to "get out of here and not come back" with his grandmother's response being, "You are just like your father." At this point in the session, George became very upset, trembled with his eyes tearing up. Suggestions for relaxation were given along with suggestions that distracted him from the night of the crime. He then was brought out of the hypnosis.

While awake he reported recalling most of the content of the session. He admitted that recalling the events of the murder was difficult for him. He further admitted that he was ambivalent about going forward; the fear of reliving the actual assault "made me sick" was his report. The session was then concluded and a third session scheduled.

During the third session, no hypnosis was introduced. Instead a rehashing of the issues discussed in the first session occurred. The value of recalling versus the pain associated with recalling were assessed. At the end of the third session, George reported that he had to learn about what happened, and a fourth session was scheduled.

Between the third and fourth session, George was directly observed, and guards were interviewed in order to determine any deterioration in his behavior and adjustment to prison. It was reported that he was quieter since the inception of the sessions. Prior to these sessions, he was "social" with both guards and select inmates. It also was reported that he remained compliant and cooperative and there were no reports of conflicts with either guards or inmates.

At the start of the fourth session he was questioned about the reported quietness that was observed. George readily admitted that the prior

sessions had "made me think." When asked specifically about continuing the uncovering, he readily indicated that he wanted to continue and that he "needed to know what happened."

In the fourth session, in a similar manner to the second session, hypnosis was introduced. George, while hypnotized, repeated some of the events discussed during the second session. At the point of the grandmother's confrontation, and stating that George was "just like his father," George began to breathe heavily, then reported rushing out of the room to an outside shed. There he recalled his grandmother pursuing him to the kitchen, which led to the outside shed and her continuing to berate him. With bat in hand, George returned to the kitchen telling his grandmother to "shut up," then striking her on the right side of the head with the bat. He recalled her immediately falling to the ground and bleeding, He further reported feeling only rage at that point and continued to batter her about her head. George then recalled throwing the bat outside the kitchen and then driving to a friend's house. George recalled telling the friend that he wanted to stay in his house for a while to "cool off" because he had a "bad argument" with his grandmother and did not want to return home for fear of "losing my temper." The police apprehended and arrested him at the friend's house approximately 3 h later.

In reviewing records of George's trial, the significant details of the case coincided with George's account during hypnosis. In further sessions with George, these memories were readily recalled and discussed by George. He believed that alcohol had played some role in his violent behavior and also believed that there were many issues related to his parents' rejection of him and his own feelings of inadequacy as their offspring. He requested and was granted continued psychotherapy during his incarceration.

The facts in the case of George were well established and, in fact, George was convicted and serving his sentence for the crime. Hypnosis was used to assist George in his general adjustment by helping him to gain insight and better control over his behavior.

## Case of Murder and Attempted Rape

A 40-year-old school teacher was found brutally murdered in her townhouse that was located in a small community complex. As she was returning home carrying bags from shopping, the perpetrator, likely waiting outside her house, followed her into her home and using knives found in her kitchen, brutally stabbed her 17 times. During the assault, using multiple knives, the victim was eviscerated and one knife broke during the assault and was left in the victim's left temporal area of her head. Despite the attack occurring between 3 and 5 p.m., there were no witnesses and no one could identify any possible suspects. The police were duly concerned given the nature of the crime but were equally stymied with virtually no clues to follow.

Several weeks prior, in this same small complex, an attempted rape occurred. The victim, who reported the assault to the police, was a 24-year-old, 5′4″ tall, thinly built, white female. She reported to the police that she was startled awake by the appearance of a large man standing in the doorway of her bedroom. During police interviews, she was able to recall that once she saw the man in her doorway, he then rushed her and pinned her to the bed by laying on top of her. After some struggling, she was able to free her legs and push the attacker off of her whereupon he fled the scene. Despite multiple interview attempts, she could not provide a better description of the assailant, nor could she recall additional details associated with the attack. During interview attempts she would cry, cover her face, and have difficulties maintaining composure.

The homicide detectives, who were working the previously described murder case, with few leads related to their murder investigation, attempted to link the rape case and murder case. They theorized that an individual attempted a rape, was thwarted and embarrassed, and then, harboring resentment and anger, committed a brutal murder. The victim of the attempted rape was very eager to assist in catching her assailant and offered to participate in an hypnosis interview. Police scheduled a session to interview the victim while hypnotized.

Four police officers attended the hypnosis session. One officer was working the homicide case, two officers were working the attempted rape case and one police artist. All remained present during the hypnosis. A video taping of the session was initiated prior to the participant or observers entering the room. For about 10 min, the subject and interviewer discussed the nature of hypnosis, her voluntary involvement in the interview, and her ability to either pause or stop the session at any time. The nature of hypnosis and the procedures to be used as an induction also were discussed.

A progressive relaxation followed by an arm levitation was used as an induction. The subject responded well to the suggestions of relaxation and rapidly engaged in the suggested arm levitation. During hypnosis, the subject was given supportive suggestions, i.e., that she was safe and secure. Using the numerous police officers in the room, she was told that "there were many police officers in the room" and that she would be well protected. Next, she was told that we would begin to discuss the events of the night of her attack, but that rather than remembering these events, she would be watching them on a monitor as if they were video-taped. She was further told that she could control the playing of the video by freezing a frame, pausing it, playing it back, or even stopping it. In this way, it was explained, she could manage her fears while "watching." During the session, the police artist positioned himself behind and slightly to the left of the subject. This allowed the interviewer to have a clear view of the artist throughout the session.

Once arm levitation had occurred and the subject appeared comfortable and hypnotized, she was told that we would start the video at the point where she was startled awake and could see her attacker in the doorway of her room. With some nonverbal prompts provided by the police artist, the subject was asked to focus on the distance between the assailant's head and the top of the doorway as well as the distance between his left and right shoulders and the door jams. This provided an estimate of the assailant's height and width.

The subject then reported seeing him rush her and jump on top of her in her bed. She became very animated as she described the scene, struggling in her chair with gross arm and leg movements. She recalled him telling her to stay still and to stay quiet or he would use his knife. After about a minute and a half of his maneuvering on top of her, she recalled confronting the perpetrator by telling him he had no knife. He responded by sitting up on her and reaching into his pocket telling her "the knife is here, in my pocket." Since the perpetrator was now in full and close view of the subject, it was suggested that the "video" was now on a freeze frame and that she could look at the perpetrator for as long as she needed. She started her description by stating that he had a bad odor "he smells … he smells … very bad." I asked her to look at his face and describe it. With the police artist motioning me by touching parts of his face, we moved through a description starting at his forehead and hairline, moving through his eyes and cheeks and then his nose, lips and chin. The description she provided was very specific and allowed the artist to fill in a great deal of facial detail. After about 20 min focusing on the face, the subject was asked to once again put the "video on play." At that point, with the assailant still sitting up on her, the subject once again moved abruptly in her chair. She pushed with her arms and raised her knees up to her chest as if to kick. She then recalled sliding her legs up and out from under him, then kicking him in the groin and stomach until he fell off the bed. She next recalled jumping from the bed and continuing to kick him as he crawled to the bedroom glass door. She recalled him reaching up to open the door then fleeing the apartment with the victim still in pursuit. Finally she recalled saying to herself, "I need to go back inside and call the police." She recalled returning inside her apartment, locking the door and phoning the police.

She was then awakened from the hypnosis, asked a couple of questions regarding the session and then looked to the police artists asking to see the sketch he had drawn. Upon looking at the sketch she immediately shouted out "that's him. That's the guy that came into my room."

Using the sketch, police were able to identify a person of interest, a contract maintenance worker, who had performed duties at and around the complex. Police were not, however, able to connect this individual to the murder case which remained unsolved.

This case illustrates the use of hypnosis to aid the recall of a victim/witness. The subject was very responsive to hypnosis and reported after the session that "it was almost like it was happening again." The case also illustrates the need to corroborate information obtained during the hypnosis session.

## Case of an Initiation Murder

Two couples had eaten and were socializing while drinking at a local restaurant/bar. They had been talking and drinking for a couple of hours after eating, and then departed to their car shortly after midnight. The car was parked in a parking lot immediately outside of the restaurant. They continued to talk and kiss in the parked car. After several minutes in the car, they noticed a vehicle stop behind theirs and shinned its headlights in their parked car. After about a minute of the second vehicle remaining behind the parked vehicle it began to slowly circle the lot. The car circled back to the couple's parked vehicle, and shined its lights into the parked car a second time. The male sitting in the front seat of the parked vehicle, exited the car and began taking a step toward the circling vehicle. At that point, three men wearing scarfs covering their faces and carrying sawed-off shot guns left their car and approached the man who had exited the parked car. They then shot the man who had exited his car. The three men next entered the parked car, threatened the three remaining victims, pointing guns at them and telling them to "shut-up." The three men then took a beeper, returned to their car and drove off. The woman sitting in the front seat, leaped from the car to see her fiancé laying face-up on the pavement outside the driver's door.

Police and emergency vehicles arrived at the scene within a few minutes after the shooting. The shot man, who was wearing an undershirt with the writing "Police Department" under an opened button-shirt, was pronounced dead at the scene. In attempting to interview the couple in the back seat, little information was obtained. Both were drinking heavily and could only recall that disguised men had briefly entered the car. The woman sitting in the front seat, having seen her fiancé shot dead, was highly emotional and could only recall the assailant's being masked, and carrying "big guns." She also recalled that as the assailant's car circled her car the first time, saying out loud, "I am going to get the license plate and report these kids tomorrow." When questioned about the plate's identification, she was highly emotional and not able to recall any details about the plates or the vehicle.

Following several attempts at traditional interviews, the police, left with little additional information, requested that the witness/victim be interviewed using hypnosis. A session was scheduled with the most promising witness, the woman who was sitting in the front passenger seat of the parked car. Accompanying the witness/victim were two State Police Officers and a police artist.

Video recording of the session was initiated prior to entering the interview room. The session began with a discussion of hypnosis and the witness' voluntary participation in the interview. Several general questions about hypnosis were asked and answered prior to suggestions for relaxation being given. Next, an arm levitation was introduced to which the witness responded quickly and fully.

The witness was given suggestion for regression to the point of departing the restaurant and returning to her car. She was given suggestions that "it is as if you are watching the events on a video monitor and able to pause the video, stop it or skip over portions." She described both couples leaving while embracing, then entering the car where they "began to make-out." She recalled a car pulling behind the couples' car with its lights directed inside of their car. She was asked to describe the car behind theirs but only said "too bright … I can only see the lights." She next recalled feeling very annoyed, thinking it was "kids" trying to annoy the couples. She

remembered saying, "I'll get their license plate number and report those punks to the police." She was then asked to move forward on the video and reported seeing the car move away from their car. She was told to freeze the video at that point and from the side/back view describe the vehicle. She reported, "Its white, looks new and white … it's big like a van or a utility." When asked about the license plate she reported "I can't see it." She was told to advance the video forward. She reported seeing the car moving away and now beginning to turn to the left to circle them. When she reported seeing the plate in view she was told to stop the video again. As she studied the plates, she first reported the state in which it was registered. She then reported seeing some of the letters/numerals on the plates. After about 2 min of studying the plates she abruptly called out six letters/numbers. An officer in the session room immediately stood up and motioned to use the office phone whereupon he requested a search for a vehicle with the numbers/letters identified in the session.

As the interview with the witness continued she described the car as fully circling and returning to the position directly behind her car with lights shining inside. She recalled her fiancé muttering something but could not make out what he said as he departed the car. Next she heard a loud noise and then saw one assailant opening her passenger side front door. A second assailant opened the driver's side front door while a third opened the driver's side back door. Pointing guns at each of the victims they ordered them to "shut up" and "give me what you got; give me your money." Before any of the three victims could comply the assailant who entered the driver's side front door, grabbed a beeper from the dashboard and then turned and headed away from the car. The other two assailants followed and they hurriedly departed the parking lot.

The police artist motioned to go back over the point at which the assailants entered the car. A general description of the faces was provided with the description including the scarfs pulled over each individual's face. The gun pointed in the face of the victim was given a very detailed description. The police artist was able to create a drawing of one of the disguised perpetrators holding a sawed-off shotgun but with a scarf covering his lower face to his eyes.

Meanwhile an identification of a stolen white Cherokee, with five of six letters/numbers coinciding with the description given, matched that of a vehicle stolen the day before about 15 miles from the crime scene.

This case illustrates the use of hypnosis with a victim/witness who had made a purposeful effort to learn and recall information relevant to a crime, but who had been sufficiently traumatized so as to be unable to recall in a waking state. The case further illustrates by using suggestions for relaxation and safety, additional and directly relevant information could be recalled. Following corroboration of the hypnotically aided recall, police were able to identify the vehicle used in the crime. The crime, however, remained unsolved.

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# Part VII

# Violence in Specific Settings

# Violence and the Military

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## Introduction

Since 2001, the US Military has been drawn into a global war on terrorism. Succeeding wars and military operations have greatly impacted military members and their families. This exposure to violence has implications for law enforcement communities nationwide. Further, the interaction between the military and law enforcement have occurred on many levels and across varied crisis situations.

The military is tasked to use organized violence against threats aimed at the security of the US (Thornhill, 2016). Military structure and function and, therefore, definitions of organized violence are evolving in response to globaliza-

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tion and increasing collaboration among military, paramilitary, law enforcement, private enterprise, and specialized civilians as participants in modern variations of war in turn leading to reconceptualization of conflict and war by policy-makers and scholars (Kaldor, 2013).

As noted by Thornhill (2016), a more recent focus on organizational capacity building centered on partnerships and intermediaries and the overlap of organizational objectives and activities have promoted flexibility surrounding traditional military roles. The US military and support forces are currently expected to deploy rapid and comprehensive response capability to a broad range of issues both domestically and internationally, including armed conflict, terrorism, and complex emergencies displayed through the breakdown of political and civilian systems. Such roles and expectations are increasingly complex and require professional and expertly trained individuals. Those individuals need to be ready to organize and combine their attributes into a cohesive and effective unit as well as blend leadership and technical expertise with organizations conducting intelligence, diplomacy, and peacekeeping.

Perpetual conflict has become a standard for the US military; Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) were officially ended as combat missions in 2011 and 2014, respectively (Torreon, 2015). Yet the mission continues to exist under new names and directives, specifically Operation New Dawn

(OND), Operation Freedom's Sentinel (OFS), and Operation Inherent Resolve (OIR) (Fischer, 2015). Rostker (2006) described the US Military as an "all-volunteer force" of professionals, smarter and better trained with fewer resources while still acknowledging criticisms of a lack of social representativeness across military personnel and a widening gap between those that politically empower military force and those that enact said force.

Thornhill (2016) writes that the culture of the military has been transformed by technology and the ability to conduct surveillance and kill from a distance redefining our understanding of the "common defense"; how and who will enact it. These larger forces are determinates of policy, training, and force selection. Each member of the military also acts within the realm of his/her personal framework shaped by environment, genetics, and experience.

This chapter initially highlights personal and interpersonal interactions with violence within the context of the military environment including active duty and reservist military personnel, veterans, cohesions and conflict with law enforcement and indicators of aggression and violence resulting in criminal behavior. The chapter later addresses specific topics of military and law enforcement interaction and crisis negotiation.

## Overview: Factors Associated with the Military Life Cycle, Interpersonal Dynamics, and Aggression

More recently, the military has formally recognized that the person is indeed more than the sum of his/her military life. A military member is also subject to periods of cumulative stress related to military life in addition to family life and personal dynamics (US Army Report HP, 2010). Transition underlies much of the activity associated with the military: military personnel, and by extension their families, move house 2.4 times more than civilians and can be expected to deploy with minimal notification and preparation (Clever & Segal, 2013). The Military Life Cycle follows a path of prede-

ployment, deployment, reset, and redeployment or reintegration (US Army Report HP, 2010). During deployment, separation from family and familiar surroundings is impactful but to what extent? There are many stressors military personnel endure during deployment in addition to the dangers of combat. They can experience alienation and loneliness, fatigue induced by long work hours, feelings of disempowerment and ambiguity in regard to the mission, and potentially damaging levels of stress and anxiety surrounding a constantly changing environment (Bartone, 2006).

Military service personnel exposed to combat-related trauma during deployment(s) may develop symptoms of acute-phase mental health crisis, such as severe anxiety and emotional distress, or in some instances a disconnection from reality. When a military service member does not respond to available treatment options while deployed or presents with symptoms of sufficient severity to compromise his or her ability to function in deployed environment, the member is removed from the combat zone by aeromedical evacuation (Baker et al., 2016). Psychiatric disorders were among the top five conditions leading to aeromedical evacuation from Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF) combat zones between 2004 and 2005. By 2007, psychiatric disorders exceeded combat injuries as a cause of aeromedical evacuation (Cohen et al., 2010).

The effects of deployment on mental health are complex. Several studies have found moderate but significant connections between deployment and reported symptoms of PTSD (Baker et al., 2016; Fiedler et al, 2006; Phillips et al., 2010; Reger et al., 2008). However, other research has pointed to combat exposure specifically as the primary factor (Pietrzak, Pullman, Cotea, & Nasveld, 2012). According to Bonanno et al. (2012), higher levels of posttraumatic stress are significantly associated with single time deployers who have experienced greater combat exposures. The findings indicate that more than two-thirds of all US Military personnel have low levels of posttraumatic stress from predeployment to postdeployment. US military personnel overall display more resiliency than not (Bonanno et al., 2012).

## Deployment, Postdeployment, and Family

Reintegration into life after deployment may occur over a period of months to years. It can come before a redeployment phase or reentry into civilian life, and it is often a source of stress for the service member and the family (Marek et al., 2012). Returning service members and their families frequently reported the following challenges (Marek et al., 2012).

| Service members | Spouses and children |
| --- | --- |
| Loss of a primary role in the family structure; for example, a spouse has assumed activities previously under the domain of the service member | Role reassignment including parenting roles and discipline of children |
| Interpersonal interactions affected by adjustment issues:<br>• Physical health issues<br>• Mental health issues, PTSD symptoms, substance abuse<br>• Communication difficulties | Adjusting expectations and coping with issues that the service member is experiencing in a positive manner Bridging communication issues |
| Feelings of "not fitting in" culturally and into civilian life:<br>• Loss of "respect"<br>• Transition from military structure<br>• Feeling that "no one understands" deployment-related experiences | Difficulties in understanding the deployment-related experiences and feelings of the service member Uncertainty in understanding how to offer meaningful support |
| Employment and financial concerns | Anxieties related to redeployment or loss of income in the case of military separation |

Undeniably, military life and deployment requires many adjustments and presents significant challenges to military personnel and their families but are these events always associated with negative outcomes? According to Meadows (2012), the evidence indicates that by and large military families are comparable to civilian families during peacetime. However, children who are separated from a deployed parent(s) for longer periods of time have more psychological and behavioral issues than their counterparts (Meadows, 2012). An estimated one in five returning married service members admitted to serious interpersonal struggles during postdeployment (Gibbs, Clinton-Sherrod, & Johnson, 2012). Relationship difficulties were more likely to occur among individuals with significant health problems, PTSD and/or depression, and substance abuse issues (Gibbs et al., 2012).

## PTSD and Aggression

A number of studies have explored a link between PTSD and aggression. Brown, Williams, Bray, and Hourani (2012) surveyed a large population of active duty and Reserve service personnel deployed within the last 2 years for self-reported measures of PTSD, alcohol and/or substance abuse, aggressive behaviors, and a person's tendency for risk-taking behaviors. In general, higher PTSD scores were associated with increased alcohol use, more impulsivity, and higher frequency of incidents related to verbal and physical aggression (Brown et al., 2012). Elbogen and Johnson (2009) found that comorbid alcohol and substance abuse was the primary indicator of potential violent behavior among those individuals diagnosed with serious mental illness (SMI). Individuals with PTSD symptoms were also at higher risk for depression and chronic medical illnesses such as hypertension and diabetes (Angkaw et al., 2013; Trivedi et al., 2015).

## Acts of Violence: Suicidality, Sexual Assault, Intimate Partner Violence (IPV), and Other Criminal Behavior

### Self-Harm

While there is some cause for hope with a reported plateau in suicide numbers over the last three years (Kime, 2015), suicide among veterans continues to rank at the top of the most serious problems facing military leadership and the civilian community. Serious harm often extends to family and community members with succeeding involvement by law enforcement that can

quickly escalate as will been seen later in this chapter. Corr (2014) reporting for Armed Forces Health Surveillance estimated a rate of 17.1 suicides per 100,000 (person-years) among active service members for a three-year period from 2010 to 2012. Suicide was the third leading cause of US Military deaths proportionally to all attributable causes between 1998 and 2003, and between 2006 and 2011. Self-inflicted injury rose to the second leading cause of death among this population after a peak number of suicides in 2012 (Corr, 2014).

## Sexual Assault

Interpersonal violence in the military setting is frequently discussed within the framework of sexual assault. The Uniform Code of Military Justice (UCMJ) defines sexual assault across a spectrum ranging from unwanted sexual contact to rape (Castro, Kintzle, Schuyler, Lucas, & Warner, 2015). Castro et al. (2015) describe estimated rates of sexual assault in the military across the literature as ranging from 9.5% to 43% for females and 1% to 12% for males. Which are comparatively similar to reported civilian rates of sexual assault of 28–33% for women and 12–18% for men. This is not a problem that is unique to the military by any means. Contributing factors such as gender stereotyping, cultural and religious influences and behaviors clustered around alcohol and substance abuse, may engender perceptions surrounding what constitutes sexual assault in both the military and civilian environment.

Military culture that emphasizes unit cohesion over the individual often discourages victims from speaking out about assault. It is important to note that navigating the military legal system can be especially challenging despite recent revisions. Those revisions include: prohibiting the use of a perpetrator's previous military performance as a means of absolution from charges; bureaucratic obstacles, and victims of sexual assault are not allowed to sue the military (Castro et al., 2015). The Department of Defense (DoD) (2015) is mandated by Congress to collect data on sexual assault involving military service members 18 years and older annually. Reporting may be classified as unrestricted or restricted at the request of the victim to remain confidential. Investigations may take a period of months to more than a year (DoD, 2015).

The military response in the last decade has benefitted increased transparency regarding how sexual assault is reported and investigated. This includes the institution of annual training for all military and affiliated personnel, the establishment of dedicated response teams, and the removal of some perceived barriers in coming forward such as allowing victim-elected confidentiality in reporting. There remains, however, a need for continued education aimed at removing cultural stereotypes and gender bias within the military population. Also, leadership that demands a safe environment for all service members and ensures that violators are investigated and prosecuted without negative repercussions for reporters of sexual assault. Increasingly, alliances and partnerships with civil authorities must be developed to fix gaps in addressing intimate-partner or nonmilitary personnel sexual assault also involving a service member.

## Intimate Partner Violence

Domestic violence statistics gathered from a cross-section of police departments by the Police Executive Research Forum (PERF) (PERF, 2015, Jan/Feb) are sobering. PERF finds that 14% of homicides and approximately a quarter of aggravated assaults are related to domestic violence with an estimated 8% of all department calls attributed to domestic violence. Law enforcement personnel are all too familiar with the inherent dangers associated with responding to such calls (PERF, 2015, Jan/Feb).

Intimate Partner Violence (IPV) is a societal problem occurring in both the military and the civilian population. Approximately one-third of women and one-fourth of men have experienced some form of IPV ranging from sexual assault to stalking (Gierisch et al., 2013). The US Army reported a sharp increase of 33% in family violence perpetrated by a service member between 2006 and 2011 (Army 2020, Report 2012). According to Army research, related alcohol use associated with domestic violence increased by 54% during this same time frame (Army 2020, Report 2012).

## Criminal Behavior

The available research on the effect of military service on criminality has yielded inconsistent evidence according to Brooke and Gau (2015). Veterans and reservists can and do end up on both sides of the law. A large sampling of inmates in US correctional facilities identified approximately 10% of incarcerated individuals having prior military service (Brooke & Gau, 2015). Earlier studies have pointed to substance and alcohol abuse, PTSD, and combat exposure as risk factors for subsequent criminal behavior. Brooke and Gau (2015) found that there were few direct military service elements commonly associated with criminality other than length of service which was associated with fewer arrests. What does seem clear when assessing the impact of military service on problematic or criminal behavior are individuals who have mental health issues including PTSD and/or alcohol and substance abuse issues may be at a higher risk during the stress of reintegration and require a specialized approach better able to address these areas of concern.

## Interface of Military and Law Enforcement Services

As military members transition from the armed forces and back to civilian life, they must find jobs in order to support themselves and their families. Some military veterans will look for jobs in law enforcement due to prior training in the military. Subsequently, law enforcement officers are also that are a part of the National Reserve and are called up for deployment overseas. According to data collected in 2003, International Association of Chiefs of Police (2009) reported that 11,380 military reservist law enforcement officers were called up for deployment. Currently, the Department of Veteran Affairs or Department of Justice have not released statistics on how many military veterans become law enforcement officers in the USA. This section looks at the transitioning time period, transition programs, benefits and challenges of military experience, stress, and burnout for officers with and without military experience, and law enforcement structure.

## Transitioning Time Period

Military veterans and military reservists need time to transition back into civilian life. Research conducted by the International Association of Chiefs of Police (IACP) (2009) has found that military members and supervisors believe that a time period of readjustment is needed before military veterans' transition to life as law enforcement officers. The IACP's (2009) study surveyed military veterans, police chiefs, and other officials on their opinions about the transition from military life to civilian life. The study found that 79% of participants stated that less than 6 months between returning from deployment and transitioning into law enforcement officers was adequate (IACP, 2009). The study also reported that only 3% of leaders with military experience believed that veterans did not need a transition, while 20% of leaders without military experience agreed with that statement (IACP, 2009).

The IACP (2009) also noted that the majority of subjects believed that military veterans should have a choice in the length of the transitioning period before joining the police force. Indeed, the length of the transitioning period should be up to the discretionary of the veteran and his or her superior because each veteran will handle the adjustment back to civilian life differently. One veteran may have difficulty adjusting back while another veteran has a much easier time transitioning back into civilian life (IACP, 2009).

## Transition Programs

It is well-known that the length of the transition period from military to civilian live varies for each individual. Several law enforcement agencies are aiming to make the transition for veterans as stress-free as possible. The Los Angeles Police Department (LAPD) is looked at as the "gold standard" in terms of programs for military reservists. Part of the liaison program supports military reservists before, during, and after deployment. A military liaison officer is assigned to the military reservist and can help them and their families with communication, differences in pay, and overall

support. Once military reservists return home, they will have a psychological interview to evaluate them for posttraumatic stress disorder symptoms along with other potential problems before they return back to work (Webster, 2008).

The Kansas City Police Department (KCPD) in Missouri also has an effective program which helps military reservists receive benefits, vacation time, and insurance during the transition back from deployment. The program connects reservists with psychological services, peer counseling programs, and chaplains (Webster, 2008). Another successful program is in Richland County in South Carolina. The Richland County Sheriff's Department recognizes that military resources may run out before symptoms of posttraumatic stress disorder (PTSD) can emerge in military veterans. The program mandates that military reservists meet with a psychologist to assess for PTSD and provide services (Webster, 2008).

## Benefits and Challenges

As law enforcement agencies continue to establish programs for transitioning veterans, it is essential to discuss the benefits and challenges of the transition as well as the veteran's prior military experience. A number of these benefits and challenges described by the International Association of Chiefs of Police (IACP) as well as several other authors will be described in this section.

## Benefits

The IACP (2009) complied research on several benefits that included the physical abilities and conditioning that the military provided them, the firearms training military members received, and respect for discipline and authority figures. Participants stated some beneficial experiences that have been found for law enforcement officers with military background include: leadership experience, combat experience, and working with different cultural and ethnically diverse groups (IACP, 2009).

Law enforcement officers with military experience stated that they believed that their military experience gave them an advantage over other law enforcement officers (Fagan, 2013). They stated that military experience gives police officers a tactical advantage as well as preparing and working in highly stressful situations. Law enforcement personnel with military experience felt that crisis situations on the job could be comparable to combat situations and were able to relate accordingly. While police officers without military experience, did not have combat experience and were not as prepared (Fagan, 2013).

## Challenges

Although law enforcement officers without military experience face some of the following challenges, those with military experience are more subjected to these challenges. Henson, Reyns, Klahm, and Frank (2010) found that younger male police officers with military experience were more likely to have the most complaints against them than others in their department. Challenges also included:

Low tolerance for citizen's complaints, which they perceive as minor, relative to their own combat experiences, reduced level of empathy for others, impatience with the decision makers and leaders within their agencies, different rules of engagement and standard operating procedures, the need to adjust driving behavior to domestic streets, and the need to adjust language to civilian environments (IACP, 2009).

## Academy Training

White (2008) found that performance in the police academy does not appear to be affected by past military experience. However, past military experience does give an advantage to police academy trainees over those without military experience. Traditionally, prior military experience is given preference and is highly valued throughout the selection process (White, 2008).

## Stress and Burnout

Researchers have questioned whether law enforcement officers with military experience

handle stress and burnout better than those without military experience. Patterson (2002) found that military experience did not lower or raise law enforcement officers' perceived levels of stress. While Ivie and Garland (2011) observed that law enforcement officers with military experience handled the stress of negative events better than those without military experience.

Ivie and Garland (2011) contended that officers with military experience have the ability to cope with daily stresses as well as immediate dangers better than those without prior military experience. Yet officers with prior military experience face negative effects of consistent long-term exposure to negative events and stressors similar to officers without prior military experience. The rate of burnout is similar between law enforcement officers with military experience compared to those without (Ivie & Garland, 2011).

Interestingly, Ivie and Garland (2011) also found that gender difference had an impact on officer stress for those without military experience. Yet there was no gender difference reported for those with prior military experience. Female officers without military experience reported higher levels of stress than male officers without a military background. Studies have not found that gender affects the rate of burnout in law enforcement officers with or without military experience (Ivie & Garland, 2011).

As will be discussed later in this chapter, Ivie and Garland (2011) found officers with military experience have been found to perform better on SWAT (Special Weapons and Tactics) teams or other similar teams than officers without prior military experience. This is thought to be due to the physical and disciplinary training that service members receive while in the military. Military training is similar to some of the training and skills that SWAT team members are required to have (Ivie & Garland, 2011).

## Militarization of the Police Force

In this section, the terms militarization, paramilitary units, and community policing will be described. The benefits and consequences of using the military model in law enforcement agencies will also be discussed in this section. Lastly, the similarities between paramilitary units and the military will be examined while contrasted with community policing.

## Military Model

Some law enforcement agencies in the USA choose to militarize or use the military model to structure their departments. While some believe that the military and law enforcement should be completely separated, others believe in the value of the military and law enforcement work together. Some argue that militarization of law enforcement is natural considering the similarities that law enforcement and the military share. "The foundation of police and military power is the same—the ability to threaten and use force lethal if necessary, to accomplish State objectives" (Kraska, 2007, p. 10).

Militarization of the police force has very mixed opinions about the benefits and consequences of this structure. Cowper (2000) argued that without the militarization of the law enforcement, police forces would not be strong enough operationally and tactically to handle dangerous and violent situations. This would then require the military to step in to resolve certain situations or require military support. Law enforcement agencies can adopt different methods and doctrine that are utilized by the military. As stated earlier, the military model can be beneficial for different police departments to follow when viewing the military as professional, and well-structured (Cowper, 2000).

One study by Kunselman, Vito, and Walsh (2013) found that the police department leader subjects were actually more rule focused and firm when compared to the Marine subjects within the study. "Their responses reflect an adherence to the quasi-military model's rigid methods of command and control and a directive, if not authoritarian system" (Kunselman et al., 2013, p. 317). Others argue that law enforcement agencies need to be careful when militarizing law enforcement agencies due to fear of possible consequences. Some worries of militarizing police departments include: "Chains of command are derided as too restrictive and rank structures as too authoritarian; uniform appearances and strict discipline are criticized for creating rigid and inflexible mind-sets" (Cowper, 2000, p. 230).

## Paramilitary Units

A paramilitary unit is a unit within a law enforcement agency but is more heavily equipped with military grade artillery as well as technology. These paramilitary units are organized similarly to the military and are considered to be specialized units such as SWAT. SWAT teams were created after the "The Posse Comitatus Act" (passed in 1878 and amended in 1995) which allowed military forces to help the police force with fighting in the War on Drugs. SWAT teams were given weaponry that was normally used by military forces and not given to police force (Williams & Westall, 2003). Paramilitary units or SWAT teams are equipped with things such as: percussion grenades, stinger grenades, and shotgun launched bean-bag systems, battering rams, hydraulic door-jamb spreaders, and C4 explosives (Kraska & Kappeler, 1997). These units are normally not used for such things as routine traffic patrol; rather, they are meant for situations such as hostage negotiations, barricaded suspects, terrorism, civil riots, and anything that could be classified as higher risk situations (Kraska & Kappeler, 1997).

Kraska and Kappeler (1997), found that nearly 90% of the 548 departments that they surveyed had a paramilitary unit. Of the remaining 10% of the departments without a paramilitary unit, 20% reported they would be getting a unit within the next year (Kraska & Kappeler, 1997). When SWAT teams were first created, they were rarely used due to the specialization of its role. Now, SWAT teams have become more proactive and work to prevent dangerous and hostile situations. In larger cities, SWAT team members work solely as a members of the SWAT team. In smaller cities where SWAT is not utilized as much, law enforcement officers also work as part-time SWAT members while maintaining other duties as well (Williams & Westall, 2003).

## Community Policing

On the other hand, community policing takes a vastly different approach to law enforcement than paramilitary units and militarization. Community policing focuses on a broader range of policing rather than just using law enforcement to stop crime (Cordner, 1995). This philosophy would allow for law enforcement officers to take more of a role in the community by also providing social services, listening to citizen's input, and taking the "will of the community" into consideration. Community policing takes a more proactive approach to prevent crime rather than to take on SWAT's more aggressive approach. However, there are possible drawbacks to using community policing. Critics suggest that community policing is nothing more than a philosophy and can be rather difficult to implement (Cordner, 1995). Law enforcement agencies using community policing may also not be experienced or prepared to handle large scale incidents and tragedies (Kraska & Kappeler, 1997). Possibly the most beneficial law enforcement structure would include aspects of community policing and paramilitary units for times of crisis.

As stated above, there are benefits as well as challenges to using the paramilitary model. It times of crisis, the paramilitary model is extremely beneficial. A few famous incidents where SWAT was called include: The Watts riots in 1965, the North Hollywood shootout in 1997, the night club shooting in Orlando in 2016 (the deadliest incident by a single gunman in US history), the police shooting in Dallas in 2016, and many more. These incidents could have escalated further or could have been even more deadly if it had not been for paramilitary units such as SWAT teams. Yet community policing also has its benefits as well. Citizens have more positive attitudes towards law enforcement officers and agencies who use community policing. This, in turn, may prevent or reduce crime in the community (Cordner, 1995). Law enforcement agencies that utilize both community policing as well as militarization and paramilitary units may be able to reap the benefits of each structure while minimizing each structure's limitations.

## Military and Crisis Negotiations

In January of 2009, 24 soldiers committed suicide, outnumbering the combat deaths for both Iraq and Afghanistan (Rogers, 2009). By February, Senior

Airman Jason Kinkenberg, who had been treated on and off base for posttraumatic stress disorder (PTSD), shot and killed his wife and then shot himself in their Las Vegas apartment (Rogers, 2009). Former Army Specialist Matthew Sepi, an Iraq veteran who sought help for PTSD, shot and killed a woman and man with an AK-47 rifle while in a convenience store (Rogers, 2009). The examples mentioned above are just a fraction of active-duty military and veterans' crisis situations that have occurred over the past several decades. In our discussion of law enforcement and the military, it is imperative to provide a comprehensive examination on crisis negotiations with military personnel. By doing so, this chapter looks to provide an overview of crisis negotiations in general, mental health issues associated with crisis incidents and the military, and finally a comprehensive outline of crisis negotiations with military personnel.

## Crisis Negotiation Overview

In order to best appreciate the complexities of crisis and hostage negotiations with military personnel, it is essential to have basic understanding of crisis negotiation.

Crisis Negotiations were first introduced in 1973 by the New York Police Department as "law enforcement's most effective, nonviolent tool" (McMains & Mullins, 2014). Crisis negotiation has been utilized in a variety of hostage, barricade, attempted suicide, and kidnapping cases, saving the lives of law enforcement officers, hostages, and suicidal subjects (Regini, 2004). According to the FBI's Hostage Barricade Database System (HOBAS), maintained by the Crisis Negotiation Unit, from 2002 to 2003 approximately 82% of reported incidents were resolved without injury or death to either the subject or the victim (Flood, 2003) when using crisis negotiation techniques.

The goals of crisis and hostage negotiations are to utilize verbal tactics and strategies to build rapport, buy time, and deescalate the emotionality of the perpetrator and increase rationality (Hatcher, Mohandie, Turner, & Gelles, 1998). The founders of modern day

crisis negotiations, Schlossberg and Boltz, stressed three principles for dealing with individuals in crisis: "(1) the importance of containing and negotiating with the hostage taker, (2) the importance of understanding the hostage taker's motivation and personality, and (3) the importance of slowing an incident down so time can work for law enforcement" (Boltz & Hershey, 1979; Schlossberg, 1979).

## Mental Health and the Military

For both active duty military and veterans, transition back to civilian life can be stressful and often met with challenges. The rates of any mental health disorder after deployment range from 11.2% to 29.2% (Hoge et al., 2004). Indeed, the rates of mental disorder for both predeployment and postdeployment are higher on average for military personnel than the general population. Hoge et al. (2002) reported that as high as 13% of all military hospitalizations from 1990 to 1999 were due to mental disorders. Subsequently, increased prevalence of mental disorders in the military exists even before individuals are deployed. Several studies found that rates of predeployment PTSD (9.4%) and GAD (15.5%) were higher than lifetime prevalence of both disorders in the general population (Hoge et al., 2004; Kessler, Chiu, Demler, & Walters, 2005). Among active duty military, the first and second leading cause of hospitalization for men and women respectively, is mental disorders (Hoge et al., 2002).

Posttraumatic stress disorder is the most common mental disorder examined in regard to the military. Some researchers "estimated PTSD affects approximately 25 to 30 percent of returning warfighters" (McMains & Mullins, 2014). However, rates of depression and substance abuse are also common, which can subsequently lead to a higher risk for suicide. Mental disorders are highly correlated with attrition, with one study finding nearly 50% of personnel hospitalized for a mental disorder leaving military service within 6 months (Garvey-Wilson, Hoge, Messer, Lesikar, & Eaton, 2003; Hoge et al., 2002).

## PTSD

Combat exposure and related traumatic experiences are most notably linked to PTSD in military populations. PTSD is a chronic, often disabling mental health disorder that may develop following exposure to a traumatic incident, which places military personnel at the highest risk for development of PTSD (Monson et al., 2006). Combat-related PTSD is often highly debilitating and can impact many areas related to psychosocial functioning (Garske, 2011). Compared to other trauma survivors, military personnel often have an increased frequency of stressors, combat guilt, resistance to treatment, and increased likelihood of physical injury (Ottati & Ferraro, 2009).

There are often three major components of PTSD: " (1) re-experiencing the trauma through dreams or recurrent and intrusive thoughts, (2) showing emotional numbing such as feeling detached from others, and (3) having symptoms of autonomic hyperarousal (e.g., irritability, aggression, exaggerated startle response" (Andreasen & Black, 2006, p. 193). Combat-related PTSD is often highly debilitating and can impact many areas related to psychosocial functioning (Garske, 2011). Military personnel experiencing PTSD often cope with the symptoms in isolation, becoming avoidant, self-medicating with alcohol and other substances, and numbing themselves to emotional experiences (Southwick, Gilmartin, McDonough, & Morrissey, 2006).

## Substance Use Disorder

Alcohol abuse is often found to be one of the most prevalent mental disorders among military (Riddle et al., 2007). Repeated exposure to traumatic events and stressors is regularly correlated with elevated rates of substance abuse and dependence for veterans (McFall, Mackay, & Donovan, 1992). Women in the military are, consequently, at further risk for substance abuse. Kulka et al. (1990) examined women who served in Vietnam and found "high levels of war zone stress" was significantly correlated with high rates of alcohol abuse and dependence.

Military members may use alcohol, cigarettes, and other illicit substances as a means of coping with mounting levels of stress (McFall et al., 1992). Family and interpersonal related stressors common in most individuals are compounded with military personnel who experience traumatic stressors related to their work (Bray, Fairbank, & Marsden, 1999).

## Suicidality

Since the beginning of Operation Enduring Freedom (OEF) and Operation Iraqi Freedom (OIF), rates of suicide among active duty military have doubled (Department of the Army, 2010) and have become the second leading cause of death for US military personnel (Department of Defense Task Force on Prevention of Suicide by Members of the Armed Forces, 2010; Ritchie, Keppler, & Rothberg, 2003). Burns (2013) found that the suicide rate for active-duty military has consistently risen each year, with a record of 349 deaths by suicide in 2012. The interpersonal-psychological theory of suicide (Joiner, 2005) proposes three distinct factors present in suicide: (1) perceived burdensomeness, (2) thwarted belongingness, and (3) acquired capability. Among military members, perceptions of burdensomeness and fearlessness about death are most associated with increased suicidality (Bryan, Clemans, & Hernandez, 2012).

## Major Depressive Disorder

While PTSD is frequently examined as the most prevalent mental health disorder for military personnel, Haines, Imeson, and Meade (1987) found that depression among veterans was more common that PTSD. As exposure to highly stressful life experiences is one of the most consistently documented risk factors for major depression (Monroe, Slavich, & Georgiades, 2009), it is not surprising that exposure to combat has been shown to be a powerful predictor of MD (Prigerson, Maciejewski, & Rosenheck, 2002). Indeed, available research suggests that MD might be as common as, six or perhaps even more common than, seven posttraumatic stress disorder (PTSD) among combat veterans. (Iversen et al., 2005; Ramchand, Karney, Osilla, Burns, & Caldarone, 2008).

## Case Example of Brian Babb

In providing a comprehensive overview of crisis negotiations with active-duty military and veterans, it is important to provide an illustrative, real-world example of crisis negotiations with military. Brian Babb was a 49-year-old, former Captain in the Oregon Army National Guard. An injury during a combat deployment to Afghanistan in 2006, left him suffering from chronic pain, memory loss, and severe mood swings (Hill, 2015). Years of posttraumatic stress, alcohol, and prescription drugs culminated one afternoon of March, 2015. In possession of several rifles and a 9mm handgun, Babb laid out his belongings; placing paperwork for his boat, vehicle, mortgage, social security card, and military identification on the kitchen table, and his cell phone, laptop, and an American flag folded into a triangle on a stool (Hill, 2015).

After contacting his therapist, Dr. Higgins dialed 911 and alerted authorities to the mental state of Babb. Having already fired a round from the handgun, and with a roommate inside, law enforcement stated that that information "changed the tenor" of their response (Hill, 2015). However, several miscommunications between Babb's therapist, the 911-call taker, and the on-scene negotiator subsequently escalated Babb's anger and agitation. Indeed, the negotiator attempted talking to Babb through a loudspeaker of a BearCat parked 100-ft from the residence (Hill, 2015). The incident came to an end when Babb opened up the front door, pointing a rifle at officers who then fatally shot Babb (Hill, 2015).

The crisis situation in Oregon involving Babb demonstrates the need for more extensive law enforcement training in dealing with active-duty military and veterans. In the case of Babb, Dr. Higgins cautions not to "surprise them [veterans] don't make them feel off-guard" (Hill, 2015). Furthermore, Dr. Higgins states "you [the negotiator] want to avoid doing is something that's going to trigger a response that if they have very severe PTSD all of the sudden they can go from everything's fine to—boom—they're in combat mode" (Hill, 2015). Crisis situations, like that of Brian Babb, elucidate the need for training to better understand and handle military personnel in crisis.

## Crisis Situations with Military Personnel

According to the FBI's Hostage and Barricaded Database System (HOBAS) 6% of incidents encountered by law enforcement (e.g., suicidal individual, domestic altercations, murder-suicides, bank robberies, and barricaded individuals) involved a veteran or active-duty military personnel. Etter, McCarthy, and Asken (2011) cite mental disorders, such as PTSD, depression, and Mild Traumatic Brain Injury (MTBI) as major contributors to veteran's adjustment problems and subsequent police-related encounters. For example, military personnel who develop PTSD are 2–3 times more likely to engage in intimate partner violence than veterans without PTSD (Bannerman, 2006). The rate of suicide among military personnel at home is double that of warzones (Etter et al., 2011).

### Transition Issues

Law enforcement encounters with military personnel often stem from transitional issues upon their return, and the unseen scars that can result from combat and traumatic experiences. Military personnel have a unique skill set required for combat and dangerous, life-threatening situations. "Constant vigilance expected immediate responses to orders, erratic driving to avoid roadside bombs or ambushes, operational security, and continuously carrying weapons" represent several of the wide array of skills that military personnel might possess (Remsberg, 2008). When returning to civilian or reserve life, military personnel may find it difficult to disengage from a combat-oriented mindset and continue to engage in the aforementioned behaviors. Therefore, driving erratically, carrying a weapon, and increased aggressive behavior in public can all warrant law enforcement encounters with military.

Apart from difficulty transitioning to civilian life in public, issues may arise between military members and their family. Etter et al. (2011) stated that domestic issues and intimate partner violence may arise from suppression of emotions or increased irritability or anger. Other problems, such as nightmares and hypervigilance, can result in fatigue, lack of sleep, or sleeping away from loved ones (Etter et al., 2011).

## Rapport-Building During Crisis Negotiations

During a crisis negotiation, it is important to use active listening skills and build rapport with the individual in crisis. While some officers may or may not have military experience, both professions share several common bonds. Both law enforcement and military personnel confront dangerous and possibly fatal situations, adhere to concepts such as honor, bravery, and duty, and have lost brothers and sisters on the force (Etter et al., 2011). However, it is imperative that negotiators not liken their own individual experiences to that of the veteran in crisis. During negotiations, the officer must remember "combat is unique and can differ significantly from police work" at times (Etter et al., 2011).

## Considerations for Negotiations with Military

Throughout the crisis negotiation process, it is imperative that law enforcement understands what McMains and Mullins (2014) deemed the "battlemind behaviors". Military personnel who experienced combat in OIF and OEF theaters often display "an enduring set of behaviors, mental condition, and toughness" that is unwavering and unique to the intense environments of warzones (McMains & Mullins, 2014). The following are some general guidelines for negotiators working with military personnel (McMains & Mullins, 2014):

| General guidelines | More specifics |
|---|---|
| Start slowly and spend time building rapport | |
| Stay slow—take a deep breath and then another | |
| Be nonjudgmental regarding their current and past actions | |

| General guidelines | More specifics |
|---|---|
| Do not discount emotions, but do not get frustrated or angry if the subject cannot verbalize or explain them | |
| Avoid using your rank or position—focus on your authority based on expertise, experience, etc. | |
| Pay attention to dangerous elements in the environment, including weapons, their developing a "kill zone" arranging the environment | |
| Recognize that the subject could go into a "battlemind mode" | • If they do go into battlemind mode—consider a negotiator who is a military veteran<br>• Be careful of intruding on personal space<br>• Avoid nicknames, especially those used when the subject was in the military<br>• Use active listening skills to reduce anxiety, stress, anger, and other emotions<br>• Make the subject stay still and reduce "scanning" behaviors |
| Watch for and stop impulsive behavior | |
| Use active listening skills | |
| Share common experiences (when appropriate) | |
| Practice adaptation and coping—gather intelligence to find out about skills used in nonmilitary settings | |
| Make use of helpful areas | • Military instillations or peer team groups<br>• VFW and American Legion groups<br>• Veterans administrations<br>• Wounded Warriors Project |

## Training for Law Enforcement

For law enforcement, specifically negotiators, who may encounter active duty military or veterans in crisis it is crucial that specific, comprehensive trainings, workshops, etc., are provided. Various law

enforcement agencies around the country are offering and/or requiring personnel to be prepared for crises with special populations, which include military. The Law Enforcement Training Institute, affiliated with the University of Missouri, offers two seminars, "Responding to the Combat Veteran in Crisis" and "Post Trauma Stress Affecting Military Public Safety Professionals and Military Family Members". The former is "an 8-hour presentation designed to familiarize law enforcement personnel with the psychological aspects of the warrior response" (Seminars in Law Enforcement: Responding to the Combat Veteran in Crisis, n.d.). The course encapsulates various responses and possible mental health problems and illness among military members including PTSD, TBI, depression, and alcohol. The presentation subsequently details risk factors often associated with suicide and suicide by cop for veterans (Seminars in Law Enforcement: Responding to the Combat Veteran in Crisis, n.d.).

Numerous law enforcement agencies have developed trainings courses surrounding the military members in crisis situations. The Chicago Police Department has developed a 40-hour crisis intervention training (CIT) course specifically designed to target military members in crisis (Specialized Police Response in Pennsylvania: Moving Toward Statewide Implementation). Subsequently, Virginia has developed an 8-hour training program for law enforcement that encounter veterans in crisis. Drexel University, in conjunction with the Pennsylvania Department of Human Services, has developed a 4-h law enforcement training specific CIT course on military members in crisis, modeled after Chicago and Virginia's trainings (Specialized Police Response in Pennsylvania: Moving Toward Statewide Implementation). It is imperative that trainings like those mentioned above continue to be developed across the country so that more law enforcement personnel are better equipped to help active duty military and veterans in crisis.

## Summary and Directions for Future Research

The past several decades with the global war on terrorism and military operations have greatly impacted military members and their families. *Factors associated with the military life cycle, interpersonal dynamics, and aggression* have implications for Law Enforcement communities nationwide. In addition, the interface between the military and Law Enforcement have resulted in the development of several programs that target postdeployment, military experiences, officer burnout, and the law enforcement structure.

The transition from active duty military to civilian life, as well as adjusting to life as a veteran can sometimes prove to be a difficult task. Although most individuals evidence resiliency, others may struggle and exhibit behaviors that negatively impact their personal or law enforce families. It is crucial that law enforcement organizations continue to work with active duty and military veterans transitioning into their careers in law enforcement. Equally important are those individuals who may need increased support as a result of their military service. Law enforcement departments and every officer must continue to be vigilant by understand warning signs of stress/mental illness and utilize tools acquired during specialized training.

More research is needed better understand the critical factors associated with the interface between military members and law enforcement. This includes the validation of targeted training for individuals, developing effective models to structure law enforcement agencies with the potential emphasis on community policing, and finally, expanding capability for Law Enforcement departments to respond effectively to crisis situations involving military members. These topics will be even more relevant in the future given the ongoing current global war efforts.

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# Workplace Violence

Sarah N. Henderson and Vincent B. Van Hasselt

## Introduction

This chapter provides a background on several topics under the rubric of workplace violence. Specifically, workplace violence issues are addressed in a comprehensive manner by exploring types and trends of workplace violence, research on the prevalence of each type of violence, as well as by analyzing the social, occupational, and psychological impacts of workplace violence. This chapter examines the interrelationship between the environment and social constructs that may foster violence; particularly, how the organizational structure and social climate influence the occurrence of violence. Furthermore, the authors consider more recently studied phenomena including cyberbullying and interpersonal relationship violence in the context of an occupation. Beyond this, we also propose strategies for prevention and intervention.

## Background

Violence is not a contemporary concept; in fact, for centuries, acts of violence have been socially condoned, as in the instances of war and torture. However, when people think of violence in gen-

eral, organized crime, street crime, homicide, and kidnapping may come to mind; but workplace violence may not make the list. Part of the problem are definitions of workplace violence, which have been extremely variable. Historically, national tracking agencies and researchers have focused on types of workplace violence including incidents of homicide, assault, and battery (The National Institute for Occupational Safety and Health, 1996). Yet, these are only a fraction of the acts that contribute to, and are encompassed within, the definition of workplace violence. Instead, the broad scope of workplace violence includes any act or threat of physical or sexual violence, harassment, intimidation, verbal abuse, emotional abuse, physical abuse, bullying, or other threatening disruptive behavior that occurs at work (Borum, Fein, Vossekuil, & Berglund, 1999; U.S. Department of Labor Occupational Safety and Health Administration, 2002). This continuum of violence spans a wide range, from verbal threats to homicide and is not limited to employees; instead, workplace violence extends to customers, clients, and visitors (United States Bureau of Labor Statistics, 2015). The variability within this spectrum can create confusion as to what is categorized under the umbrella of workplace violence. This extremely broad definition has expanded over time as new acts of violence have occurred (due to the changing social climate) to include cyberbullying and terrorism (Bowie, 2005; Privitera & Campbell, 2009). The continuous transformation of the definition of workplace violence has greatly impacted

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what topics have historically been focused on, the way in which researchers study violence, informed social and occupational polices and practices, and legal ramifications.

During the twentieth century acts, of extreme violence began to appear increasingly within the area of the workplace (Van Fleet & Van Fleet, 2010). A multitude of significant incidents garnered increased public awareness and concern including the 1986 U.S. Postal Service shooting in Edmond, Oklahoma, in which Patrick Sherrill shot 14 coworkers and himself. In 1997, a Miami Beach postal employee shot his ex-wife, friend, and himself in the post office. That same year, two other incidents involving the U.S. Postal Service occurred. In Milwaukee, a postal worker shot his supervisor, killed a coworker, and shot himself; and in Denver, a former employee took seven postal workers hostage for 10 h. Many workplace violence incidents in the 1980s and 1990s involved the U.S. Postal Service, coining the term "going postal" (Braverman, 1999; Van Fleet & Van Fleet, 2010). Recently, instances of workplace harassment including bullying have become more publicized and researched (Zapf & Einarsen, 2001). In fact, in 2010 Michael Mercieca filed legal changes under the Texas Employment Labor Law for a hostile work environment due to instances of bullying, ultimately receiving a settlement from his company (Bodine, 2014). Nevertheless, the most publicized instances of workplace violence in the media continue to be homicides, as seen in the more recent 2015 case of reporter Allison Parker and her cameraman Adam Ward, who were fatally shot during a live interview, before the perpetrator killed himself (Leopold & Grinberg, 2015). These examples provide a "snap shot" of the history of workplace violence within the USA as well as highlight the notoriety given to violence that is extreme (i.e., homicide).

## Trends in Violence

The National Institute of Occupational Safety and Health (NIOSH) began tracking occupational injuries that lead to fatalities in 1992 and found that workplace violence is the leading cause of occupational death (National Occupational Health and Safety Commission (NOHSC), 1999). Trends have identified that homicides in the workplace were highest in 1994 and experienced a relatively flat slope from 1999 to 2003 (Rennison, 2001; Fox & Zawitz, 2004). Estimated rates of offenses have varied over the past few decades, due to transforming definitions of workplace violence and deciphering where on the continuum types of workplace violence fall (e.g., bullying, harassment, and aggression) (Barling, Dupré, & Kelloway, 2009). This is demonstrated in the estimates of nonphysical workplace violence ranging from about 9% (Einarsen & Skogstad, 1996) to 70% (Einarsen & Raknes, 1997). In contrast, prevalence rates for physical violence range between around 1% (Duhart, 2001) and 5% of the workforce (Califano et al., 2000). Nevertheless, according to The Bureau of Labor Statistics' Census of Fatal Occupational Injuries (CFOI) over the past 20 years there were 14,770 workplace homicide victims, averaging approximately 700 homicides per year; making homicide a prominent cause of death for workers, and for females, in particular, the leading cause of occupational death. A more recent survey (Bureau of Labor Statistics, 2007) indicated that in 2006, there were a total of 516 workplace homicides, which was a 50% decrease from 1994. Further, between 2005 and 2009 nearly 70% of occupational homicides were perpetrated by robbers and other assailants while 21% were perpetrated by known work associates (U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, 2015). The National Institute for Occupational Safety and Health (1996) collected demographic data from victims of workplace violence and discovered that during the 1980s, 75% of occupational homicide victims were white, 19% were black, and 6% were classified as "other." Furthermore, these data demonstrated that almost half of all homicides that occurred among workers were within the age range of 25–44, and that three quarters of these homicides were committed using a firearm.

The sheer scope of the frequency of workplace violence is often under recognized by the public. For example, a U.S. Department of Justice Bureau of Justice Statistics Report (2001) determined that approximately 1.7 million incidents of violence at work occurred between 1993 and 1999; simple and aggravated assaults accounted for the majority of these incidents. Further, between 2011 and 2013, assaults in the workplace ranged from 23,540 to 25,630 annually. Additionally, the Bureau of Justice Statistics' National Crime Victimization Survey (NCVS) (2015) estimated there were 572,000 nonfatal violent crimes against persons 16 or older while at work. These reports indicate that nonfatal workplace violence (i.e., threats and harassment) occurs at a greater frequency even though the literature and media often focus on extreme forms of violence (i.e., physical assault and homicide).

On a broader scope, it has been estimated that for the U.S. workforce, 6% of employees will experience acts of physical violence and 41.4% will experience emotional abuse or psychological aggression annually. Further, an astonishing 13% of these employees will be exposed to some type of workplace violence on a weekly basis (Schat, Frone, & Kelloway, 2006). It should be noted that the risk of overall workplace violence has been shown to be greater in the private sector compared to public companies (Nigro & Waugh, 1996; NOISH, 1996). It has been suggested this may be due to the bureaucratic policies of private companies, which may not have as much oversight as the public sector (Nigro & Waugh, 1996). Due to the broad definition of this phenomena, people are often not cognizant of how often workplace occurs and what constitutes an act of workplace violence. The media often sensationalizes and focuses on acts of extreme violence that occur in the workplace. Yet the more commonplace acts of violence such as bullying, verbal abuse, and threats, often receive little attention (Baron & Neuman, 1998). This lack of attention and awareness in turn, effect, reporting rates (McPhaul & Lipscomb, 2004; Peek-Asa et al., 2007).

## Types of Violence

In the 1990s, The California Occupational Safety and Health Administration developed a classification system based on the victim and perpetrator's relationship in order to better define workplace violence: *Type 1*, known as external or intrusive violence, includes violent acts by a criminal with no affiliation to the workplace (e.g., robbery). This type of violence encompasses roughly 80% of workplace homicides, as in the majority of these incidents the intent is robbery or theft. Certain occupations are at a higher risk of experiencing *Type 1* violence, including late-night retail jobs, convenience stores, gas-station employees, and taxi drivers, as all of these workers carry cash and at times may be isolated (Braverman, 1999; Burgel, Gillen, & White, 2014). Interestingly, Budd, Arvey, and Lawless (1996).found that the single factor consistently linked to heightened risk of experiencing workplace violence was a work schedule that included nighttime hours or night shift work. *Type 2* violence, known as consumer-related violence, includes violent acts directed at employees by those to whom they provide services, such as customers, patients, clients, students, or inmates. *Type 2* violence is initiated by arguments or angry reactions of a client or patron over the service or some other precipitating event. However, in some occupations, the risk of *Type 2* violence is intrinsically increased, such as with security guards, law enforcement and, corrections officers, as well as hospital and mental health workers (Dang, Denis, Gahide, Chariot, & Lefèvre, 2016; Potera, 2016; Sofield & Salmond, 2003; Wei, Chiou, Chien, & Huang, 2016). *Type 3* relationship violence, includes violence committed by current or pervious fellow employees, including coworkers, managers, or supervisors. *Type 4* is organizational violence and includes acts committed within the premises of the workplace by someone who is not employed by the organization, but who has a personal relationship with an employee, such as an abusive spouse or ex-domestic partner (Division of Occupational Safety and Health in California, 1995).

## Risk Factors for Violence

There are numerous environmental influences that can act as catalysts for workplace violence including sociocultural norms, evolving business conditions, increased diversity, and personal stressors (Aquino & Lamertz, 2004; Van Fleet & Van Fleet, 2010). Organizations experience changing workplace conditions that may cause extreme stress in employees and their families while failing to offer proper support to minimize adverse effects (Van Fleet & Van Fleet, 2010). Reorganizing, outsourcing, downsizing, budget cuts, and reengineering are all a part of a company's effort to cut costs. However, these strategies create stress in workers and may act as precipitants for workplace violence (Niedhammer, Chastang, David, Barouhiel, & Barrandon, 2013; van den Bossche, Taris, Houtman, Smulders, & Kompier, 2013; Van Fleet & Van Fleet, 2010). Laid off workers may feel resentment and lash out at other employees or management. Employees who remain following downsizing can experience a host of negative consequences including increased stress due to new expectations or an overwhelming workload. Such factors may lead to acts of workplace aggression and violence (Johnson & Indvik, 1994; Salin, 2003).

Salin (2003) discussed how certain conditions may facilitate workplace violence. These include: (1) *enabling structures and processes*—the employee feeling as though they may not benefit to report violence, inadequate leadership, poor communication, high stress, and normalization of bullying; (2) *motivating structures and processes*—elevated competition, contingencies, and bureaucracy; and (3) *precipitating processes*—reorganizing management and changes in compensation. Interestingly, diversification of employees within a variety of occupations has increased exponentially over the past few decades. This has allowed for greater employment opportunities for ethnic and sexual minorities, and women, yet, in turn, has impacted incidents of sexual harassment, resentment, as well as specific hiring and promotion practices (Berdahl & Moon, 2013; Okechukwu, Souza, Davis, & de Castro, 2014; Piquero, Piquero,

Craig, & Clipper, 2013; Salin, 2015). The repercussions of these acts can lead to lawsuits as well as overt and covert forms of workplace aggression, creating individual stress for employees and on overall stressful work environment (Barak, 2013; Smith-Pittman & McKoy, 1999).

Considering the collection of external influences that may contribute to workplace violence, it is imperative to likewise examine personal stressors that employees bring to the work environment. These include turbulent interpersonal relationships, mental health problems, legal concerns, financial problems, and beliefs and attitudes that may function as a synergist for violence (Hoel, Sparks, & Cooper, 2001; Indvik & Johnson, 2012; Van Fleet & Van Fleet, 2010). The majority of research in this field supports the interactionist approach, the idea that environmental (i.e., downsizing, restricting management) and individual correlates (i.e., personality, mental health history) predict workplace violence (Aquino, Galperin, & Bennett, 2004; Hershcovis et al., 2007).

Previous investigations have suggested gender plays a role in the frequency and type of workplace violence, specifically, that males engage in more acts of workplace violence when compared to females (Castillo & Jenkins, 1994; Hershcovis et al., 2007). More recent research has revealed varied results regarding female perpetrators of workplace violence. The phenomenon of workplace bullying, has produced varied results in the frequency of aggressive behavior in females suggesting both higher and lower rates than their male counterparts (Namie & Namie, 2000; Parkins, Fishbein, & Ritchey, 2006). In regard to race, whites had higher incidents of workplace violence than any other group, while African Americans, Asians, and Hispanics experienced comparable rates (U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics 2015).

Of note, personal characteristics, such as negative psychological states, including depression and anger, have been shown to increase certain employees' risk of committing acts of workplace violence (Douglas & Martinko, 2001; Hepworth & Towler, 2004; Hershcovis & Barling, 2010).

Another important factor pertaining to the risk of workplace violence is substance use (McFarlin, Fals-Stewart, Major, & Justice, 2001). Alcohol may increase the possibility of impulsivity, risk taking behaviors, and aggression, particularly when personality, environmental, and social factors are accounted for (Lipsey, Wilson, Cohen, & Derzon, 2002; Martin, 1993). Several studies have demonstrated that alcohol use by employees both on and off the job contributes to hostile behaviors in the workplace such as demeaning coworkers and divergent forms of workplace harassment (Bennett & Lehman, 1996; Lehman & Simpson, 1992).

Although there is controversy regarding individuals with mental health problems and the risk of violence (Appelbaum, Robbins, & Monahan, 2000; Capozzoli & McVey, 1996; Swanson, Holzer III, Ganju, & Jono, 1990), the majority of the literature indicates a link between violence and mental illness (Arseneault et al., 2000; Desmarais et al., 2014; Dillon, Hussain, Loxton, & Rahman, 2013; Pickard & Fazel, 2013; Ten Have, De Graaf, Van Weeghel, & Van Dorsselaer, 2014). Swanson et al. (1990) found that individuals with a mental illness and a co-occurring substance use disorder were at an increased risk for violence. Further, these researchers discovered a positive relationship between the number of mental health diagnoses an individual had and the likelihood of violence, suggesting the greater number of mental health problems the increased probability for violence.

## Occupations at Risk for Workplace Violence

It is important to understand the broad scope of workplace violence, and to be aware that the most workplace violence incidents do not occur exclusively within a certain type of occupation. However, there are some work environments that are at an increased risk and continue to experience higher rates of victimization. Researchers have proposed a number of environmental risk factors for workplace violence within organizations. These are: monetary transactions with the

public, safeguarding possessions or property of value, working in isolation or in small numbers, working night shifts or early morning hours, working in areas with high rates of crime, and working in environments that serve the community (e.g., nursing, law enforcement, social services, the judicial system), (Castillo & Jenkins, 1994; Empie, 2003; Neuman & Baron, 1998; Piquero et al., 2013). Specifically, for those employed in the mental health field, the nature of their work, the population served, and the type of work environment may increase risk for exposure to violence (Casteel et al., 2009). For example, an inpatient hospitalization setting with longterm mentally ill patients may actually be less of a risk for the employee due to the increased supervision, medication stabilization, health care, and support, compared to those settings that provide services on an outpatient basis where clients are exposed to daily stressors within the community (Warshaw & Messite, 1996).

Considerable research has focused on those who are employed in the healthcare field, particularly nurses who are exposed to workplace violence from patients, coworkers, and administration due to the high stress environment. Nurses who work in psychiatric facilities report frequent exposure to threats, verbal abuse, and physical assault (Merecz, Rymaszewska, Mościcka, Kiejna, & Jarosz-Nowak, 2006). Similarly, emergency department nurses report a significantly greater number of both verbal abuse and physical assault by patients compared to other types of nurses (Speroni, Fitch, Dawson, Dugan, & Atherton, 2014). Thomas (2010) found that nearly 60% of novice nurses report having been a victim of verbal abuse. Overall rates of workplace violence within this occupation vary; however, some studies have estimated weekly occurrences at 10% (Camerino, Estryn-Behar, Conway, van Der, & Hasselhorn, 2008) while others to be as high as 72%, contingent on the hospital environment (i.e., emergency services vs. intensive care units) and perpetrator (i.e., coworkers, administration, doctors, patients, and visitors) (Chapman, Styles, Perry, & Combs, 2010; Jiao et al., 2015; Spector, Coulter, Stockwell, & Matz, 2007). Importantly, The 2011 American Nurses Association Health and Safety Survey

(n.d.) revealed that 34% of nurses had concerns regarding on-the-job assault. Hamric, Spross, and Hanson (2009) indicated that workplace violence increases the probability of errors, poor patient care, stress, low morale, and burnout.

Consequences of decreased retention of novice nurses due to workplace violence are of concern as this profession is already characterized by a high burnout rate (Adriaenssens, De Gucht, & Maes, 2015; Dall'Ora, Griffiths, Ball, Simon, & Aiken, 2015; Woelfle & McCaffry, 2007). Additional repercussions include: job loss, physical health difficulties, sleep disturbances, mental health disorders, and overall negative well-being (Gerberich et al., 2004; Miranda, Punnett, Gore, & Boyer, 2010; Murray, 2009; Yang, Spector, Gallant-Roman, & Powell, 2012). Exposure to workplace violence including verbal abuse, harassment, and physical assault, from patients has been linked to depressive symptoms in nurses (da Silva et al., 2015). It is important to note that as with any episode of workplace violence, the victim may choose not to report the incident. Yet, one annual review of workplace violence charges revealed that 2% of nurses filed injury claims, totaling $94,156, with $78,924 for treatment and $15,232 for compensation (Speroni et al., 2014).

## Workplace Bullying

Violence in the workplace is a multilayered, pervasive phenomenon. Unfortunately, many people remain unaware of how commonplace violence is, especially when considering the variety of events that meet the definition of workplace violence. As noted previously, covert or less lethal means of violence, such as workplace bullying, can be more commonplace in working environments than more extreme acts of violence. This type of workplace violence is a form of interpersonal aggression defined as systematic maltreatment at a person's place of employment by other members of the employment organization (Neuman & Baron, 2005; Rayner & Keashley, 2005). It is often characterized by verbal acts spanning from gossiping, to derogatory comments or insults, as well physical

violence and intentional isolation by others (Cowan, 2012; Einarsen, Hoel, Zapf, & Cooper, 2003; Einarsen, Raknes, & Mattheisen, 1994; Lutgen-Sandvik, Namie, & Namie, 2009; Lutgen-Sandvik & Tracy, 2012; Samnani & Singh, 2012). Workplace bullying is studied under a variety of terms, including workplace aggression, workplace deviance, and antisocial work behavior, leading to difficulties in its classification (Lutgen-Sandvik, Tracy, & Alberts, 2007). This phenomenon has been examined with specific focus on intensity, frequency, and duration of the acts, as well as the power disparity that exists between the victim and the perpetrator. Workplace bullying is defined as several negative or abusive acts that often involve isolation, intimidation, and humiliation that occur almost weekly for a period of time (Einarsen et al., 1994; Mikkelsen & Einarsen, 2001). The power disparity is often a prominent feature of workplace bullying as victims feel they are unable to thwart the acts (Einarsen et al., 2003; Keashly & Nowell, 2003). Leymann (1996) created a bullying model, hypothesizing that bullying was the consequence of an escalated conflict or "critical incidents" that continue for a period of time without resolution. Several studies support this theory as the foundation for workplace bullying (Ayoko, Callan, & Härtel, 2003; Baillien and De Witte, 2009; Leon-Perez, Medina, Arenas, & Munduate, 2015).

It is estimated that between 30 and 50% of the workforce has been exposed to some antisocial behaviors or bullying, and 25% of employees who have been bullied will quit their job as a result (Lutgen-Sandvik et al., 2007; Mitchell, Ahmed, & Szabo, 2014; Nielsen et al., 2009; Rayner, 1997). Previous research has suggested that victims of this particular form of workplace violence are at an increase risk of suffering from poor self-esteem and increased physical health concerns (Einarsen & Mikkelsen, 2003; Keashly & Harvey, 2005; Keashly & Neuman, 2005) as well as a variety of psychiatric concerns such as substance abuse (Richman, Rospenda, Flaherty, & Freels, 2001), depression (Namie, 2003), and posttraumatic stress disorder (Matthiesen & Einarsen, 2004). Einarsen and Nielsen (2015) conducted a longitudinal study

examining the impact of workplace bullying on mental health outcomes and found that workplace bullying was a significant predictor of psychiatric conditions, including depression and anxiety. Further, workplace bullying has been shown to decrease job satisfaction (Rodríguez-Muñoz, Baillien, De Witte, Moreno-Jiménez, & Pastor, 2009) and increase turnover rate and absenteeism (Berthelsen, Skogstad, Lau, & Einarsen, 2011; Ortega, Christensen, Hogh, Rugulies, & Borg, 2011). Moreover, not only are acts of workplace bullying correlated with negative occupational outcomes (e.g., job dissatisfaction and stress) for employees there is a significant interaction between the demands of an occupation, the amount of control the employee feels they have over their job tasks, and unsupportive supervisors (Goodboy, Martin, Knight, & Long, 2015).

As mentioned earlier, guns have been the mechanism by which increased public awareness of workplace violence has occurred. However, less sensationalized, but as devastating, technology has created another vehicle in which violence can occur. One subset of workplace bullying involves cyber-bullying, in which electronic communication is used to harass a victim (Deirmenjian, 1999; McGrath & Casey, 2002). This type of workplace bullying has become more prominent as there is increased availability and accessibility of these devices to be utilized for computer sabotage, threatening or sexually harassing emails, and cyber-bullying through computers and smartphones. Cyber-bullying is defined as intentional, repetitive, malicious behavior that is conducted using electronic means such as emails, text-messages, websites, chat rooms, and social media, that is directed to a victim over a period of time (Chesney, Coyne, Logan, & Madden, 2009; Smith et al., 2008). The use of technology is considered a more passive way to engage in interpersonal violence and an easily accessible tool for those who may not use a traditional weapon to inflict harm.

Research indicates that the negative psychological and physical health outcomes of traditional bullying occurs with cyberbullying. For example Coyne et al. (2016) found victims of cyberbullying endorsed a stronger negative relationship to job sat-

isfaction compared to offline bullying. Also noteworthy, the context of cyberbullying, is the power-imbalance created by the anonymity of the perpetrator due to the nature of electronic communication (Vandebosch, & Van Cleemput, 2008). And, as technology allows for the ability to anonymously engage in harassment towards others, it is a challenge to fully identify perpetrators or prosecute them. Workplace policies and practices addressing cyberbullying are in their infancy due to the changing modes of cyberbullying and the complexity of this phenomenon (Whitty & Carr, 2005).

Workplace bullying creates a hostile work environment that increases the likelihood of a variety of negative sequelae for victims. Yet, there remains a scarcity of research regarding organizational polices and procedures to combat bullying, including the outcomes of such policies (Cowie, Naylor, Rivers, Smith, & Pereira, 2002; Hoel & Einarsen, 1999). Part of the difficulty with this endeavor is the definition of "bullying," as a variety of negative behaviors can be understood in this context creating ambiguity and differing policing (Bartlett & Bartlett, 2011).

## Domestic Violence Impact in the Workplace

Domestic violence is a serious public health crisis, as a third of women in the USA are estimated to experience violence in their lifetime (Bachman & Salzman, 1995; Black et al., 2011). Respectively, females make up 47% of the total labor force; as such issues of domestic violence should be recognized and addressed by employers due to the potential negative consequences (Toossi, 2002). Indeed, domestic violence has been recognized as one of the leading causes of occupational injury and homicide for women, emphasizing that this is a workforce issue. It is estimated that women experience approximately 13,000 incidents of violence by an intimate partner at work annually (Bachman, 1994). Between 2003 and 2008, 650 females were feloniously killed on while on the job, with 33% of the homicides committed by a partner or a former partner

(Tiesman, Gurka, Konda, Coben, & Amandus, 2012). For males, the majority of perpetrators were unknown and incidents were categorized within Type 1 violence (i.e., robbery) (U.S. Department of Labor, Bureau of Labor Statistics, 2015). However, employment has been shown to be a protective factor in aiding a female to discontinue a domestic violence relationship as it provides a means of financial security and decreases isolation (Rothman, Hathaway, Stidsen, & de Vries, 2007; Tolman & Wang, 2005; Widiss, 2008).

The majority of females who experience domestic violence at work are prone to a number of consequences that not only impact the victims personally, but also can have significant repercussions for their employer. Several studies have estimated serious economic outcomes of domestic violence, including a loss of around 8 million work days or about 32,000 full time jobs (Centers for Disease Control and Prevention, 2003; Farmer & Tiefenthaler, 2004). Annually, females exposed to domestic violence experience a loss of around $18 million in earnings related to absenteeism and lost wages as well as job loss (Corso, Mercy, Simon, Finkelstein, & Miller, 2007). Females who are stalked by a perpetrator of domestic violence are significantly more likely to experience workplace harassment. Consistent with other studies, females endorse that stalking by a violent partner negatively impacts their work performance (Logan, Shannon, Cole, & Swanberg, 2007). Victims are more likely to obtain part time employment and work in lower paying occupations, overall resulting in a lower income average compared to females without a domestic violence history (Adams, Tolman, Bybee, Sullivan, & Kennedy, 2012; Aizer, 2010; Crowne et al., 2011; Swanberg, Logan, & Macke, 2005). Victims of domestic violence are more likely to have disrupted employment histories including frequent occupation changes (Moe & Bell, 2004; Swanberg, Macke, & Logan, 2006; Walby, 2004). Not surprisingly, Raphael (1996) discovered that between 24% and 30% of women in domestic violence relationships experience job loss due to their domestic violence situations.

Victims of domestic violence also experience a heigher rate of absenteeism and decreased work productivity (Tiesman et al., 2012; Wathen, MacGregor, & MacQuarrie, 2015). Notably, the decreased work productivity is not necessarily from the carryover of violence at home to work, such as with absenteeism or tardiness; instead, it is due to the continued harassment or violence at work. Harassment may occur through phone calls and emails that not only take time away from productivity, but use company resources (Bowie, Fisher, & Cooper, 2005; Wathen et al., 2015).

Swanberg et al. (2005) found that between 36% and 75% of domestic violence victims experience victimization from their abuser at work through means such as harassing phone calls. All of these factors, high turnover, increased absenteeism, decreased work productivity, and even health care costs not only impact the victim; they also create financial repercussion for employers (Fisher & Peek-Asa, 2005; Swanberg, Ojha, & Macke, 2012). A 2002 survey of 100 manger and senior executives within Fortune 1000 Companies, found that 56% of those surveyed had knowledge of employees who had a history of or were currently experiencing domestic violence (Randel & Wells, 2003). Further, they estimated that domestic violence negatively impacted their employee's physical safety (52%), psychological well-being (60%), workplace productivity (48%), and attendance (42%). When accounting for lost wages, absenteeism, and sick leave due to domestic violence, the corporate loss is approximately $100 million (Partnership for Prevention, 2005). Further it is not only company that experiences secondary losses from employees who are victims of domestic violence; coworkers may also potentially experience stress due to feeling unsafe in their work environment (Fisher & Peek-Asa, 2005; Logan, Shannon, & Cole, 2007).

Domestic violence in the workplace is a workplace hazard, which can be a serious security risk. In particular, domestic violence has the potential to generalize to the victims' workplace as the perpetrator may know of where the victim works (Farmer & Tiefenthaler, 1997; Fisher & Peek-Asa, 2005) In fact, approximately 50% of the workplace homicides of females committed by partners occurred in a public building or parking lot near their place of employment (Tiesman et al., 2012).

Fisher and Peek-Asa (2005) reviewing employer recommendations regarding domestic violence in the workplace found that 70% of suggested administrative interventions such as leave options and flexible scheduling. Equally important, was training of employees and management on signs of domestic violence, training on ways to talk to a victim of domestic violence, and how to identify perpetrators of violence in the workplace (Randel & Wells, 2003).

## Consequences of Workplace Violence

Workplace violence has the potential to cause tremendous psychological harm (Mayhew & Chappell, 2007). Serious psychological distress may be experienced, as victims are at heightened risk for mood disorders, such as anxiety and depression, that often go undetected (Einarsen & Nielsen, 2015; Liu, Liao, & Loi, 2012; Rafferty, Restubog, & Jimmieson, 2010; Yagil, 2006). If incidents of violence are repeated and severe, post-traumatic stress disorder or even suicide may result. Einarsen and Nielsen (2015) found that a significant proportion of workers exposed to repetitive bullying died by suicide. Maladaptive coping mechanisms (e.g., substance use) can have secondary impacts on interpersonal relationships and work performance (Bacharach, Bamberger, & McKinney, 2007). Exposure to violence at work not only has an emotional and physical health impact on the victim, but bystanders who witness the violence have also been shown to suffer emotional consequences and experience sleep disturbances (Hansen, Hogh, Garde, & Persson, 2014; MacIntosh & Noble, 2014). The consequences not only directly impact the employees, but also create a "domino effect" which leads to indirect costs for interpersonal relationships, organizations, and productivity. In this sense, the impact may not easily be measured or accounted for; yet, the consequences can have overwhelming effects. For example, Nixon (2009) found that within 2–4 months after a workplace violence incident, productivity was cut in half and there was a 20–40% turnover in employees. Victimization

and exposure to workplace violence can lead to less measurable costs, such as decreased productivity, increased sick leave, absenteeism, job turnover, decreased morale, poorer performance, and decreased job satisfaction, as well as overall increased stress of the employee (Budd et al., 1996; Hoel et al., 2001; Kivimäki, Elovainio, & Vahtera, 2000; Nalla, Morash, Vitoratos, O'Connell, 1996; Tepper, 2000).

## Approaches to Addressing Workplace Violence

It is vital that companies are proactive in reducing the potential for workplace violence. A number of organizations intentionally have instituted programs and policies in these efforts. Part of the difficulty is creating policies that capture the broad continuum of violent or criminal acts that may occur, and the dissemination on responsibility within organizations of who and how to address the issue (Meloy, 2000; Rugala & Issacs, 2003). There is a lack of consensus within organizations concerning who should receive training and who is responsible for addressing violence within the workplace (i.e., human resources personnel, managers/supervisors, executives, employees, or staff) (Fisher & Peek-Asa, 2005; Fox & Stallworth, 2009; Pollack, Austin, & Grisso, 2010; Vartia & Leka, 2011).

Researchers have classified workplace violence interventions into three categories: (1) environmental interventions, (2) organizational or administrative interventions, and (3) interpersonal or behavioral interventions (Merchant & Lundell, 2001; Wassell, 2009). Environmental interventions include installation and use of security features, lighting that improves visibility, cameras, and engineering mortifications (e.g., bullet proof glass, cash drop boxes). Organizational interventions include the creation and implementation of policies and programs to enhance safety (e.g., including multiple employees on one shift). Finally, interpersonal interventions include staff training to increase awareness, react appropriately to conflict, and practicing drills of workplace violence scenarios (e.g., training staff on an escape plan during an

active shooter situation). Interestingly, Kotora, Clancy, Manzon, Malik, Louden, & Merlin (2014) examined the most effective interventions for workplace violence and found that informational approaches (i.e., didactic lecture) and practice (i.e., case-based scenarios) were the most effective in educating employees.

Over the past few decades, as this phenomenon has become more prevalent, there have been a number of interventions on the organizational level as well as the broader state and governmental level. Most research has focused on workers in the health care sector, specifically hospitals, as historically these occupations have a heightened risk of violence (Beech & Leather, 2006; Chen, Hwu, Kung, Chiu, & Wang, 2008; Gillespie, Gates, Miller, & Howard, 2010; McPhaul & Lipscomb, 2004; Peek-Asa et al., 2007). In 1999, OSHA formulated guidelines for developing a workplace violence prevention program, which included short-term environmental interventions as well as long-term action plans (Lipscomb, Silverstein, Slavin, Cody, & Jenkins, 2002). These guidelines were implemented within a psychiatric hospital and included: (1) responsibility by staff to adapt a zero-tolerance policy for any type of violence including verbal or electronic threats and physical assault, (2) informing a supervisor of any act of violence, (3) adopting environmental modifications such as alarms and security systems, (4) implementing policies (e.g., counseling and debriefing) to address when a violence act occurs, and (5) pairing trained and experienced staff with novice employees (Foley, Kalat, & Silverstein, 1997; Gallant-Roman, 2008; Lipscomb et al., 2002; Merchant & Lundell, 2001).

The Veterans Health Care Administration in particular, provided a framework of multipart policy and program implementations to address violence by patients. It also conducted a systematic review of programs to analyze their impact on workplace violence (Mohr, Warren, Hodgson, & Drummond, 2011). Interventions by the these VA facilities consisted of a policy review of their Prevention and Management of Disruptive Behaviors Program, electronic management systems, including Automated Safety Incident Surveillance and Tracking System (ASISTS),

education on de-escalation techniques and personal safety, Patient Record Flag System to identify and track patients with a history of violent incidents, a Behavioral Threat Assessment Program, and a Disruptive Behavior Committee consisting of diverse staff to assist in identifying high-risk patients (Department of Veterans Affairs, 2003; Hodgson et al., 2004; Lehmann, Padilla, Clark, & Loucks, 1983; Mohr et al., 2011). Findings indicated that following the implementation of these efforts, there was a decline in workers compensation claims by 40% and an overall 5% reduction in incident rates of violence (Mohr et al., 2011). Although a reduction of violence was noted in the VA system, further research and implementation of programs outside of the health care industry are needed to assess program effectiveness for various populations, unique workplace settings, and distinct precursors to violence.

Romano, Levi-Minzi, Rugala, and Van Hasselt (2011) discussed the notion that there are often critical precursors and signs prior to the occurrence of workplace violence. Behaviors such as hostile outbursts, verbal threats or references to weapons, jokes referencing violent acts, hypersensitivity, depressive symptoms, and erratic behavior coupled with decreased productivity increase the potential of violence. These authors also explained how to train employees and the benefits of such instruction for a situation that involves workplace violence, such as an active shooter. Romano et al. (2011) state that there are two situations for which organizations should be prepared: (1) *action point* which is "the moment when an individual recognizes that an employee may be on the path toward committing some type of violent act in the workplace and subsequently take action to prevent it"(p. 4); (2) a *flash point* is "the moment when workplace violence occurs, is too late for any type of prevention strategy"(p. 5). With the former scenario, awareness of the behaviors that may precipitate violence is important, followed by either communication with the individual or notifying a supervisor regarding their concerns. A specific example of a *flash point,* which has become more prevalent over the past decade, is an active shooter or hostage scenario (Blair, Nichols, Burns, &

Curnutt, 2013; Lankford, 2013; Mayhugh, 2011). Emphasized is the need for employees to be proactive by gaining awareness of the precursors for violence, rehearsing a plan/exit strategy if violence should occur, and assessing alternative possibilities for escape or hiding (Romano et al., 2011; Rugala & Romano, 2008).

Increased awareness of workplace violence through reported incidents and media coverage of these events creates a catalyst for unions and workers to advocate for protective legislation and prevention programs (Lipscomb et al., 2002). Although it is clear that gains have been made towards addressing workplace violence on multiple levels, there are gaps in policies, training, and prevention (Vecchi, Van Hasselt, & Romano, 2005). Workplace violence prevention is the responsibility of every employee of an organization. It is necessary for comprehensive programs to include training, be supported by all levels of employees, have individual active involvement, and be continually assessed and evaluated (Gallant-Roman, 2008; London, 2013; McPhaul & Lipscomb, 2004; Romano et al., 2011; Wassell, 2009).

## Conclusion

Workplace violence is a widespread and complex problem. Prevalence rates vary due to a number of factors, including the definition used to classify this phenomena and the possibility of under-reporting by victims. The psychological impact of workplace violence on the victims cannot be ignored as it creates a "domino effect" for the employer including lost productivity, absenteeism, lost wages, and increased turnover which create significant economic consequences. Research efforts focused on proactive interventions and evaluations of these programs are invaluable to continue to discover unique risk factors for violence and programs that effectively decrease violence in the workplace. Further examination of the relationship between the environment and social constructs that potentially contribute to violence, particularly how the company structure and social climate influence the occurrence of violent acts, is greatly needed. To fill the current void and address this evolving phenomenon continued investigation on progressive acts of violence (i.e., cyberbulling) is required. Increased efforts and continued awareness by all employees and organizations will be instrumental in increasing safety and job satisfaction in the workplace setting.

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# School Violence

Scott Poland and Carlye B. Conte

## Introduction

The concept of school violence is not new and despite increased media attention and dramatic headlines, school violence is not increasing. Facts surrounding school violence are frequently misrepresented and distorted, leading to false perceptions surrounding the prevalence and pervasiveness of school violence. Although mass tragedies resulting from extreme acts of violence are exceedingly rare, the fact that violence does occur within school settings necessitates an understanding of how and why this violence occurs and what can be done to prevent these acts in the future. According to the National Center for Education Statistics, at the start of the fall 2014 school year there were approximately 54.8 million students attending both public and private elementary and secondary schools, with an additional 21 million students attending postsecondary institutions (2014). Therefore, due to the fact that the majority of American youth attend school each day, it is essential that they are provided with a safe and secure learning environment.

Research shows that homicide and suicide are the third leading cause of death for young adults

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ages 10–24, with each accounting for 15% of youth fatalities (Kann et al., 2014). Yet the majority of youth violence resulting in death does not occur within the schools. Over the last decade between 1% and 2% of youth violence resulting in fatality occurred within the school setting. Additionally, studies have shown that approximately one homicide or suicide occurs within the school for every 3.5 million students enrolled (Robers, Kemp, Rathbun, Morgan, & Snyder, 2014). Overall, data on youth violence indicates that schools are one of the safest places for children and adolescents.

## Research on School Violence

### Defining School Violence

School violence is considered a subset of youth violence and includes the "intentional use of force or power to harm another" occurring on school property or at a school-sponsored event (CDC, 2013). In general, school violence encompasses a broad range of violent acts including bullying, physical fights, threats and/or use of a weapon, aggression (physical, psychological, sexual, and cyber), and gang-perpetrated violence. Although school-associated homicides are considered within the umbrella of school place violence, "most lethal youth violence does not occur in schools, and most acts of youth violence do not lead to death" (CDC, 2008).

## Indicators of School Crime and Safety: 2013

Each year, the Bureau of Justice Statistics and the National Center for Education Statistics publishes a report on school crime and student safety. Drawing data from the National Crime Victimization Survey (NCVS), since 1992 the rates of serious violent victimization (e.g., rape, sexual assault, robbery, and aggravated assault), and all violent victimization (e.g., serious violent victimization in addition to simple assault) for youth ages 12–18 have all declined. In 2012, the rate of violent victimization at school was approximately 29 per 1000 students, and the rate of serious violent victimization was approximately 7 per 1000 students. Violent victimization was higher for younger students (e.g., ages 12–14), males, and students residing in urban or suburban areas (Robers et al., 2014).

## School-Associated Violent Death Study

The School-Associated Violent Death Study (SAVD) is the result of collaboration among the Centers for Disease Control and Prevention (CDC), the US Department of Justice, and the US Department of Education. This study included a compilation of school place fatalities that resulted from homicide, suicide, or legal intervention occurring within or on the way to or from elementary and secondary schools within the USA (Fig. 1). Between the school year of 2010 and 2011, there were a total of 31 violent deaths occurring within the school place, 14 of which included students ages 5–18. Of the 14 violent student

deaths that occurred, 11 were homicides and three were suicides. In comparison, there were approximately 1336 youth homicides (Fig. 2) occurring during the 2010–2011 school year and approximately 1456 youth suicides (Robers et al., 2014).

Between the years of 1992 and 1999, there were a total of 358 student deaths as a result of 323 incidents. In comparison, between the years of 1999 and 2006, there were 116 student deaths as a result of 109 incidents, 78% of which occurred on a school campus. This study shows that the majority of student-associated homicides involved a single victim and single offender, and that individual events resulting in mass homicides at school is exceedingly rare. For example, of the 116 student deaths 87% involved a single victim, whereas a total of eight incidents resulted in more than one homicide (CDC, 2008).

## Violence in Postsecondary Institutions

Research from the Bureau of Justice Statistics shows that the rate of violent victimization is lower for college students (61 per 1000 students)
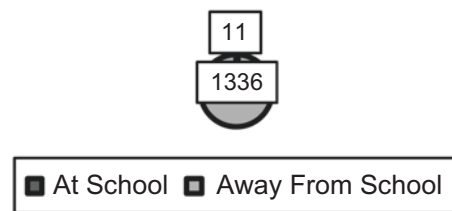
**Fig. 2** Homicide of youth, ages 5–18, at school and away from school, 2010–2011. Adapted from the "Indicators of School Crime and Safety: 2013" by Robers et al. (2014)
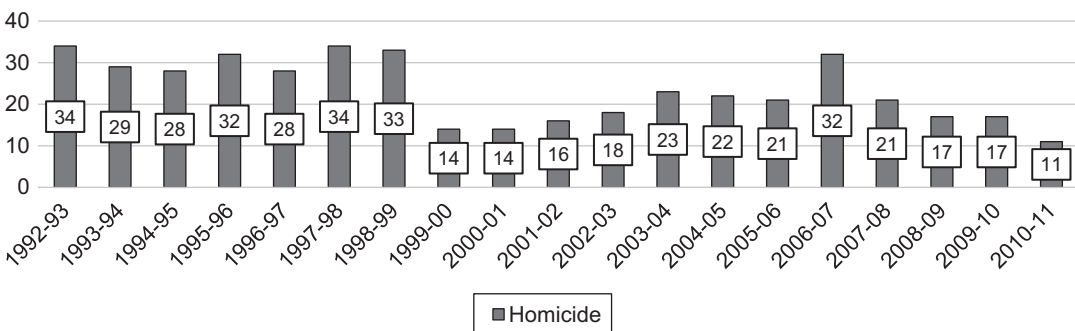
**Fig. 1** School-associated student homicides of youth ages 5–18, from 1992 to 2011. Adapted from the "Indicators of School Crime and Safety: 2013" by Robers et al. (2014)
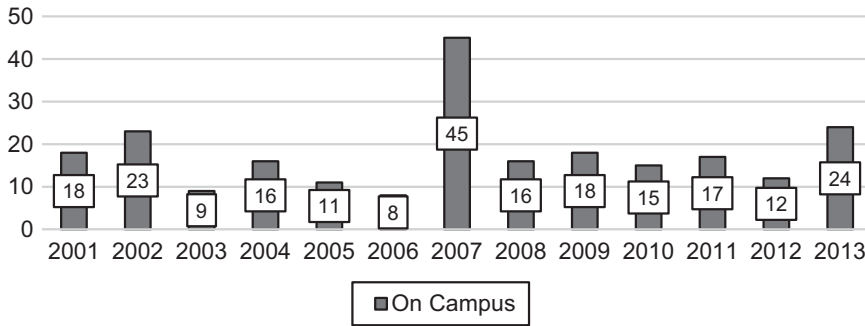
**Fig. 3** Data on homicides occurring on college campuses, 2001 to 2013. Retrieved from the Campus and Security Data Analysis Cutting Tool (http://ope.ed.gov/security/)

than for same age non-students (75 per 1000), and that the rate of violent victimization against college students has decreased nearly 54% between 1995 and 2002 (Baum & Klaus, 2005). Only a small portion of violent crimes occur on campus and simple assault constitutes the majority of all violent victimizations. Although suicide rates among college students (e.g., 7 per 1000) are nearly half that of non-students within the same age range, research suggests that suicide may be the second leading cause of death for college students (Drum, Brownson, Denmark, & Smith, 2009). Homicide is the leading cause of death for youth ages 18–24, and approximately 13 youth within this age range are murdered every day (CDC, 2014). Additionally, 2008, young adults had the highest rate of homicide victimization and the highest rate of homicide offending (Cooper & Smith, 2011). Yet, despite these trends, homicides occurring on college campuses represent a small portion of the overall number of homicides of college-aged students (Fig. 3).

## Historical Perspective

A series of school shootings during the 1990s created the perception that school violence was a relatively new phenomenon and was increasing at alarming rates. The Columbine school shooting, in which two students, Eric Harris and Dylan Klebold, used firearms and explosives to attack their school, became one of the most salient incidents during that time period. The Columbine tragedy resulted in the death of 12 students, a teacher, and the suicide of both Harris and Klebold. During the twenty-first century school massacres such as Virginia Tech and Sandy Hook resulted in mass fatalities of innocent students, and created a renewed sense of fear and horror in society. The increase in media coverage surrounding these events created the perception that society was faced with a new breed of school violence and that children within American schools were inherently unsafe. Despite these perceptions, school-based violent attacks have occurred throughout the history of America's educational system. For example, one of the deadliest attacks against a school occurred in 1927 when Andrew Kehoe, a disgruntled school board treasurer, bombed an elementary school. This attack resulted in 45 deaths, 38 of which were school children. In 1966, Charles Whitman, a former student at The University of Texas, killed his wife and mother and then went on a campus shooting spree, which resulted in the death of 14 students and school personnel.

Despite the fact that school shootings have not dramatically increased in recent years, the succession of high-profile school-based attacks following Columbine has given rise to the belief that there is an overwhelming number of massive attacks of violence, resulting in multiple fatalities, within the schools. Research shows that media coverage of school shootings intensifies the emotional valence surrounding these events by increasing their visibility and salience, and creating a

distorted sense of reality (Muschert & Carr, 2006). It is the traumatic and inexplicable nature of school shootings that creates an exaggerated sense of danger despite the fact that these events are statistically rare.

## School Shootings as a Subset of School Violence

School shootings are a subset of school place violence and, at first glance, it appears as though the term could be clearly defined, yet this is not the case. Part of the problem is that there is no uniform definition for the phenomenon of school shootings and inclusion criteria vary among studies. Determining the prevalence of school shootings is further compounded by differences in data collection methods, making the extrapolation of results across studies extremely challenging. The study of school violence in general, and school shootings in particular, encompasses several dimensions, such as the location of the attack, the perpetrator's association with the school, the method of the attack, how the attack was planned and carried out, and the outcome of the attack. For example, some studies include incidents that occur on or near school grounds or on the way to or from a school sponsored event. Another dimension of classification involves the perpetrator; some studies include events carried out by any individual on school property, whether or not this individual was associated with the school. Others include school-associated individuals, such as teachers, staff, and other school personnel, whereas some studies limit inclusion to incidents that were carried out by current or former students. Although school violence can take many forms most studies classify school-based attacks as those involving lethal weapons, whereas others only include attacks involving firearms. In regard to planning the attack, some researchers attempt to discern the motivation behind the attack, differentiating between incidents resulting from retaliation or a grudge and those in which the attack served a symbolic purpose. Another significant factor is the outcome of the attack. Some studies include any school-related event resulting in injury or death, whether this event was accidental or intentional. Victim characteristics are often classified based on their relationship to the school and perpetrator and whether they were specifically targeted or chosen at random. Additionally, some studies are based on the outcome of the attack and whether or not the incident resulted in multiple fatalities. Researchers have attempted to use these various dimensions of school place violence in order to classify these attacks.

## Research on Targeted School Violence

### The Safe School Initiative Report

The Secret Service, in conjunction with the US Department of Education, published the Safe School Initiative Report (SSIR), a study that was conducted following the massacre at Columbine in an attempt to understand and address the phenomenon of school shootings (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002). This report was a comprehensive analysis of "targeted school violence," and included incidents in which a current or former student deliberately targeted their school, or individuals within the school, with the intent to harm others and/or themselves.

*Incident characteristics.* The SSIR identified a total of 37 school-based attacks, committed by 41 perpetrators, across 26 states, occurring between 1974 and 2000. Among these 37 incidents most occurred during the school day, 75% resulted in one or more fatalities, and the remainder resulted in at least one injury. Almost all of the attackers were current students (95%). The majority of incidents were carried out by a single attacker (81%), although in 11% of attacks the perpetrator had assistance from others. Two or more perpetrators committed school-based attacks in approximately 8% of the incidents. Lethal weapons were used in the majority of the attacks and approximately half involved the use of more than one weapon, with handguns and shotguns being most commonly utilized.

*Attacker characteristics.* The SSIR findings showed that all of the attackers were male and that most came from two-parent homes, were doing

well academically, and had no history of behavioral problems at school. Socially, most attackers were accepted by peers, characterized as having friends, and participated in extracurricular activities. Yet, despite this social acceptance, the majority of attackers were described as feeling bullied or persecuted by others prior to the attack. Only a small portion of these youth had a history of substance abuse, past violence, or prior arrests and the majority had never received a mental health evaluation. Most of these boys had been known to use weapons in the past and obtained the weapon used for their attack from a family member. The theme of violence was prevalent among attackers as evidenced by an interest in violent media or the integration of violent themes into their own writings. Almost all of the attackers were described as having experienced a significant stressor in the form of personal loss prior to the attack, 78% had a history of suicidal ideation or attempts, and 61% suffered from significant depression.

## Federal Bureau of Investigation (FBI): Campus Attacks

In 2010, the FBI published a study on targeted violent attacks occurring at institutions of higher education to determine if there were differences between these events and those that occurred between grades K-12 as identified by the SSIR (Drysdale, Modzeleski, & Simons, 2010). Between the years of 1900 and 2008 a total of 272 incidents were identified which resulted in 281 deaths and 247 injuries. The majority of incidents occurred on campus (79%), almost all of the attackers were male (94%), all but seven of the incidents were carried out by a single individual, and 54% involved the use of firearms. An analysis of school affiliation showed that 121 of the attackers were current students, 39 were former students, 29 were current or former employees, 53 were indirectly affiliated with the school, and the remaining 25 had no known affiliation with the school or student victims.

## The FBI: Active Shooter Incidents

The FBI conducted a separate study of public acts of mass violence and used the term "active shooter incidents" to describe situations in which one or more individuals were armed with weapons and in the midst of attempting to kill and/or seriously harm others (Blair & Schweit, 2014). Of the 160 identified incidents, 39 occurred within a school and resulted in 117 deaths and 120 wounded. Twenty five incidents occurred within an elementary or secondary school, 12 incidents occurred within a postsecondary institution, and two incidents were perpetrated by adults during the course of a school board meeting. Of the secondary school-based incidents, 17 of the attackers were current students, one attacker was a former student, and another attacker was a student at a different school. The post-secondary institution-based incidents consisted of five current student attackers and four former student attackers. The remaining incidents were perpetrated by employees, former teachers, or strangers with no relation to the school which they attacked. Of the 160 incidents analyzed by the FBI, 24.4% of the incidents occurred within educational settings and two such incidents - Virginia Tech and Sandy Hook- accounted for the greatest number of casualties.

## Characteristics of School Shooters

One of the main findings from the research on school shootings is that there is no one "profile" to describe all school shooters and that there are no universal trends that can be easily identified and utilized to make predictions regarding which youth are likely to carry out acts of school violence. Although a number of risk factors that increase the likelihood a youth will engage in violence have been identified, many of these findings do not extrapolate to the more specific category of school shooters. Additionally, many youth exhibit similar characteristics, yet the majority do not commit massive acts of school violence.

## Rampage School Shooters

The term "rampage school shooter" is used by researchers to describe current or former students who deliberately and purposefully attacked their

school; this attack served a symbolic purpose and although some victims may have been specifically targeted, most were chosen at random (Newman, Fox, Roth, Mehta, & Harding, 2004). These attacks resulted in multiple casualties and often ended in the death of the attacker, mainly through suicide (Rocque, 2012). Although these incidents, such as the shootings at Columbine and Virginia Tech, remain relatively rare, they tend to receive the most attention. Rampage school shooters are of particular interest to researchers because their acts of violence tend to contradict common notions involving youth violence as a whole. For example, the majority of rampage school shooters were white, middle to lower class males, who lived in suburban or rural settings and communities that were characterized as relatively safe (Rocque, 2012). This has led some researchers to propose that internal risk factors are far more influential than external circumstances in cases of rampage youth violence and that this is largely due to the severe, yet unaddressed, mental health issues of these youth offenders (Ferguson, Coulson, & Barnett, 2011).

## Psychological Explanations

### School Shooter Typology

In the book *Why Kids Kill,* Langman created a typology to describe the ten rampage school shooters within his study, with a particular emphasis on the mental health of these individuals (2009). The ten rampage school shooters included current or former students who meticulously planned, and purposely attacked, their school. The majority of these attacks resulted in multiple victims, many of whom were randomly or symbolically targeted. Langman (2009) explained that these attacks were the result of, "complex combinations of environmental, family, and individual factors that varied from one perpetrator to another." Common factors that were identified included a failure of empathy, a profound sense of rage and anguish, identity disturbances, egocentricity, and both emotional and behavioral reactivity. All but one expressed suicidal ideation and demonstrated a sense of "existential anguish" or extreme despondency. Each of the ten school shooters fell within one of the following categories: (a) psychotic, (b) psychopathic, or (c) traumatized.

*Psychotic school shooters*. The psychotic school shooters were classified as having schizophrenia-spectrum disorders and included Michael Carneal, Andrew Wurst, Kip Kinkel, Dylan Klebold, and Seung Hui Cho. Symptoms among these shooters included delusions of grandeur, persecutory delusions, bizarre thought processes, and auditory hallucinations. These shooters were described by others as odd and egocentric, and there was evidence of disturbed thoughts and disorganized speech in their journals and writings. All of the psychotic school shooters came from intact families and there was no evidence of maltreatment or family disruption. They were all the youngest sibling in a family in which the older siblings were admired and successful. Additionally, none of these shooters were medicated or taking antipsychotics prior to the shooting; four of the shooters had a history of using illegal substances.

*Psychopathic school shooters.* The psychopathic school shooters exhibited a lack of empathy, were narcissistic, and demonstrated sadistic behaviors. The two shooters included within this category were Andrew Golden and Eric Harris. As was the case with the psychotic school shooters, both of the boys classified as psychopathic school shooters came from intact families where there was no history of maltreatment or abuse. Both Golden and Harris were fascinated with weapons and belonged to families where the presence and use of firearms was a normal part of growing up. From an early age, both boys demonstrated classical symptoms of psychopathy; they demonstrated a grandiose sense of self, a disregard for social norms, and a lack of remorse. They were skilled at deceiving those around them and derived pleasure from inflicting pain on others. Golden and Harris were manipulative and domineering, and recruited peers to help them carry out their attacks.

*Traumatized school shooters*. The traumatized school shooters showed extensive histories of maltreatment, neglect, and abuse. Traumatized

school shooters included Evan Ramsey, Mitchell Johnson, and Jeffrey Weise. These three youth grew up in families with a history of criminality and substance abuse. Both Ramsey and Weise had fathers who had been involved in an armed standoff with police; as a result, Ramsey's father was incarcerated and Weise's father committed suicide. For Johnson, his biological father had a history of criminal behavior and his stepfather had previously been incarcerated for weapon and drug related charges. All three had childhood histories of physical abuse and neglect, Mitchell and Ramsey had histories of sexual abuse, and Weise and Ramsey had been in and out of foster care growing up. All three of the traumatized shooters had attempted suicide prior to the attack, and each of them was either encouraged or recruited by peers to commit their violent attacks.

### Suicide as a Primary Motivation

Many of the school shooters exhibited severe depression and suicidality prior to their attacks. This phenomenon has been described as "suicide with hostile intent," in which suicidal youth commit mass homicide prior to their death, in order to exact revenge and receive the recognition they believe they deserve (Preti, 2008). It has been proposed that these mass homicides are a subtype of murder-suicide and are committed by "pseudocommandos" who deliberately plan their attack, come prepared with a multitude of weapons, kill in an indifferent and indiscriminate manner, and plan to commit suicide at the end of the attack (Knoll, 2010). Therefore, suicide is the primary motivation for these attacks, and homicidal intent develops subsequent to suicidal ideation (Joiner, 2013). Joiner proposed a typology to describe these murder-suicides as "perversions of virtue." For example, the Virginia Tech shooter, Seung-Hui Cho, committed his massacre in a perversion of justice, based on his perception that his attack would right the wrongs he perceived had been inflicted upon him by others. In the case of Columbine, Dylan Klebold and Eric Harris were motivated by a perversion of heroic glory and the desire to be infamously remembered for their horrific act of violence.

Although most suicidal individuals do not engage in violence toward others, the fact that many of the school shooters exhibited suicidal thoughts and behaviors prior to their attacks necessitates an understanding of this relationship; because suicidal ideation often predates homicidal intent, considerable attention should be given to youth who exhibit these warning signs. Furthermore, an "understanding of suicide prevention, intervention, and postvention in a school environment may avert violence on school grounds" and is a necessary component in ensuring school safety (Erbacher, Singer, & Poland, 2014).

## Social and Cultural Explanations

### Access to Weapons

Following Columbine increased attention was given to the topic of gun control, with one study showing that 42% of media reports published after the attack defined the problem of school shootings in terms of the availability of guns and inadequate gun control laws (Lawrence & Birkland, 2004). This pattern continued during the series of subsequent school shootings in which the discourse surrounding gun control increased substantially. In 2013, 5.4% of surveyed high school students reported that they had carried a weapon to school in the preceding 30 days, which was a significant decrease from the number that reported carrying a weapon to school in 1993 (11.8%). Approximately 6.9% of students reported being threatened or injured with a weapon in 2013, which has also significantly decreased since 1993 (Kann et al., 2014). Another study found that 56.4% of school-associated violent deaths occurring between 1992 and 1999 involved the use of a firearm with 69.1% resulting in homicide, 26.8% resulting in suicide, and 4.1% resulting in homicide followed by suicide. Additionally, 37.5% of the firearms were obtained from the perpetrator's home, while 23.4% came from a friend or family member (CDC, 2003).

## Violent Media

Violent media is also a proposed explanation for the increase in school shootings and a preoccupation and unusual fascination with violent media has been discussed as a warning sign associated with school shooters (O'Toole, 2002). Research shows that more than half of school shooters studied showed an interest in violent media such as violent movies (27%), violent books (24%), and violent video games (12%). Many of the school shooters demonstrated a fascination with violence through their writings which included poems, journals, internet postings, and school assignments, which included both fictional and nonfictional work (Langman, 2012). For example, Seung-Hui Cho submitted a series of disturbing writings and poems that alarmed his teachers and other students in the class, which included a about a fictional character who was contemplating a school shooting. Dylan Klebold and Eric Harris submitted a video for a film class that depicted them as hitmen, shooting students within the school. Klebold also had submitted an assignment where he talked about a fictional character killing other students and Harris had posted extensively online regarding his desire to kill others. Despite this relationship, exposure to violent media alone cannot explain the occurrence of school shootings. Additionally, upwards of 97% of youth report playing video games and, for the majority, this does not translate to real-world acts of violence (Harvard Medical School, 2010).

## Bullying

Bullying can take many forms and in 2011 approximately 28% of students, ages 12 through 18, reported being the victims of bullying (Robers et al., 2014). Self-reports of bullying were slightly higher for females and most commonly involved being the subject of rumors or being verbally harassed and insulted. Research shows that both victims of bullying and perpetrators of bullying have an increased risk for suicide (CDC, 2014). In regard to school shootings the majority of shooters felt bullied, persecuted, or injured by others and, in some cases, this victimization was considered severe. Yet Langman (2014) debunks common myths surrounding school shooters by showing that in the majority of the 48 cases that he studied

the shooters were not isolated, alienated, bullied, or victimized. He estimated that approximately 40% of school shooters had a history of being bullied. One example of prolonged and severe bullying included the case of Evan Ramsey and following his attack at Bethel High School, he was quoted saying he was "sick of being picked on in school" (Stout, 2002). Ramsey was the only school shooter on the list who specifically targeted the student who had victimized him (Langman, 2014). Victim and perpetrator characteristics also varied based on the shooter typology. For example, approximately 75% of traumatized school shooters had a history of being bullied, whereas approximately 94% of psychopathic school shooters had a history of bullying others.

## School Violence, Threat Assessment, and Response

### Profiling

After the series of school shootings in the 1990s, a compilation of checklists and warning signs were created in an attempt to create a "profile" of the average school shooter. Unfortunately, as previous studies have emphasized, there is no one profile to explain or predict youth who will engage in acts of school violence (Vossekuil et al., 2002). Additionally, "there is no research that has identified traits and characteristics that can reliably distinguish school shooters from other students" (O'Toole, 2002). The use of profiling has received substantial criticism within the research literature due to the likelihood of over-identifying youth who will not engage in violence and the failure to accurately identify those who do. The fact that many nonviolent youth exhibit these so-called warning signs is problematic and using checklists to predict violence and label students has been described as "dangerous" (Cornell, 2006).

### Threat Assessment

Threat assessment has replaced the use of profiling and involves a comprehensive evaluation to determine the likelihood that once a threat

has been made, it will be carried out. An analysis of high-profile school shootings showed that many of the attackers relayed their plans directly to others, attempted to recruit classmates to participate in the attack, or provided ominous warnings to classmates and friends. This "leakage" of information surrounding the planned attack has been identified as an important warning sign in assessing the seriousness of a given threat. According to Langman (2009), "youths who commit school shootings typically leave a long trail of signals of what they intend to do." The SSIR shows that almost all school-based attacks were planned in advance, 93% of the attackers exhibited behavioral signs prior to the incident that concerned those around them, and in 81% of cases others knew about the attack before it took place (Vossekuil et al., 2002). Some pre-incident behaviors were explicit and included telling other students about a desire to kill classmates or indicating when the attack would occur. In other cases, pre-incident behavior was more vaguely related to the attack. Examples include the submission of class assignments centering on homicidal and suicidal themes or generic threats involving violence toward others. In a little less than half of the cases, classmates of the attacker directly or indirectly assisted in the commission of the violent act. This involvement ranged from encouraging the individual to participate in the attack to help in planning the attack and procuring a weapon.

Research has shown that school violence "stems from an interaction among the person, situation, the setting, and the target"; therefore, all of these factors must be taken into consideration during the course of a threat assessment (Fein et al., 2002). When active threat assessment procedures are in place educators, clinicians, and school personnel can respond immediately and implement appropriate interventions to prevent acts of school place violence. These procedures should not be developed following a massive school tragedy; instead, it is essential that each school has policies and procedures in place in advance to delineate how school members will respond to threats and threatening behavior.

## Threat Assessment Team

The threat assessment team should consist of school personnel, such as teachers and administrators, in addition to mental health professionals, such as counselors and psychologists, and law enforcement personnel, such as school resource officers and through liaisons with local police departments (Poland, 2008). A member of the threat assessment team should be identified as the primary point-of-contact who will be responsible for the initial screening of any and all threats. This individual should be readily available, easily accessible, and known to all members of the school and community (Fein et al., 2002).

The utilization of a threat assessment team is necessary to ensure fairness and accuracy in evaluating the threat and to guarantee that an appropriate response is implemented. A multidisciplinary approach to threat assessment allows for the provision of necessary resources and services aimed at reducing the factors or stressors that precipitate the threat. Additionally, this multidisciplinary approach allows for the implementation of interventions tailored to fit the individual needs of the student (Erbacher et al., 2014). A threat assessment team, involving a multitude of properly trained individuals from various backgrounds, will augment current school safety procedures, instill confidence in students that their needs will be met, and enhance the overall safety within the educational environment.

## Threat Classification

Although the majority of threats that are made are unlikely to be carried out, a necessary initial step in the threat assessment process includes a classification of the threat that was made. According to O'Toole, the main questions that must be addressed when a student makes a threat center on the reasonableness and sincerity regarding the threat and the perceived ability of the student to carry out the threat. Once a threat has been made, it can be classified as transient or substantial (Poland, 2008). Transient threats are emotion-based, reactive, and tend to occur in the heat of the moment. These threats are generally short-lived and dissipate quickly. In general, transient threats tend to lack specificity, do not appear

to be well thought out, and do not contain details on how the attack would be carried out. When details are provided, they tend to be implausible or inconsistent.

On the other hand, a substantial threat involves premeditation and are usually accompanied by the means and a method to carry out the proposed attack. Substantial threats include specific details such as the location of the attack, the time in which the attack will occur, the intended victims, and how the attack will be carried out. These details would indicate significant planning on the part of the individual who made the threat which increases the likelihood that the threat will be carried out (O'Toole, 2002). In substantial threats, there is an explicit intention of severe harm. For example, a hostile statement regarding the use of a weapon to injure or kill someone else would be indicative of a substantial threat, and would require immediate intervention. In the case of the Jonesboro shooting, Andrew Golden announced his plans prior to the attack, by proclaiming to students, "you're all going to die" (Newman et al., 2004). Michael Carneal spoke about the "day of reckoning" and specifically told other students he was planning a school shooting, prior to his attack in Paducah (Adams & Malone, 1999).

### Immediate Response

Once a threat is reported it is essential that school personnel respond appropriately. All of those who could potentially be affected should be involved in the response. This includes the student who received the threat, parents of both students, and any other relevant school personnel. First and foremost, safety precautions should be enacted immediately and may require the involvement of local law enforcement or a school resource officer. Once the potential for imminent danger has subsided, the threat assessment team can begin the process of evaluating the seriousness of the threat. The crux of threat assessment is not limited to whether or not a threat was made; instead, this approach emphasizes whether the student who made the threat poses a substantial risk to others.

### Comprehensive Interview

The next step in school violence threat assessment includes conducting a comprehensive interview with the student who made the threat, the student who received the threat, and any students or school personnel who may have witnessed the threat being made (Erbacher et al., 2014). This initial interview is conducted immediately and all information obtained should be sufficiently documented. It is important to gather as much information as possible, such as the exact wording of the threat, the context in which the threat was made, the circumstances precipitating the threat, the motivation behind the threat, and the intention underlying the threat (Cornell, 2007). The team can then use this information to determine the level of risk posed by the threat and whether the threat was transient or substantial.

### Psychosocial Evaluation

A psychosocial evaluation is necessary to determine the influence of psychological and social factors in making the threat and to help guide the resulting intervention. Prior to this evaluation collateral information, such as school records, juvenile arrest history, and other documentation, should be obtained and reviewed. This assessment should be conducted by a trained mental health professional and the evaluation should focus on the student's current mental state, current stressors the student may be facing, difficulties in peer and interpersonal relationships, family factors such as level of functioning and support, and any potential coping and protective factors (Cornell, 2003; Poland, 2008). This evaluation will help to determine if immediate mental health intervention is necessary.

*Example assessments.* There are several risk-assessment instruments available to mental health practitioners that help screen for violence potential in youth. The Adolescent and Child Urgent Threat Evaluation (ACUTE) includes an interview with the child and family members in addition to a review of collateral information (Copelan & Ashley, 2005). This assessment results in six threat cluster scores, along with a total risk score, which quantifies and classifies the youth's potential risk of harm to self and others. The

Psychosocial Evaluation and Threat Risk Assessment (PETRA) is implemented once a threat has been received, and is used to classify risk severity and potential for imminent violence (Schneller, 2005). This assessment results in eight cluster scores (e.g., depressed mood, alienation, egocentricism, aggression, family/home, school, stress, and coping styles) three domain scores (e.g., psychosocial, resiliency problems, and ecological) and a total score. The PETRA is also useful in identifying various psychosocial stressors and guiding intervention strategies to meet the specific needs of the student.

The Structured Assessment of Violence Risk in Youth (SAVRY) is another instrument that assesses risk and protective factors within the following domains: historical, social/contextual, and clinical/individual (Borum, Bartel, & Forth, 2005). This instrument is often implemented to aid clinicians in formulating intervention plans and monitoring behavioral changes over time. A four-pronged assessment method has been proposed as a tool to determine if the student who made the threat has the "motivation, intention, ability, and means, to carry out the proclaimed threat" (O'Toole, 2002). This method includes the identification of warning signs and risk factors within the domains of personality traits and behaviors, family dynamics, school dynamics, and social dynamics. The analysis of risk and protective factors can aid in determining the needs of the individual student in order to tailor interventions accordingly.

### Additional Response and Action

Following the comprehensive threat assessment evaluation the team should decide which interventions would be most appropriate. For example, if it is determined that the threat is transient the team may decide that the provision of services such as conflict resolution or counseling are more appropriate than serious disciplinary actions or legal intervention (Cornell, 2007). In cases of serious and severe threats, disciplinary actions such as suspension and expulsion may be warranted. In other cases, the team may determine that the student does not pose an active threat to the safety of the school community and would benefit from a comprehensive and active intervention approach.

### Intervention Approaches

Effective interventions are those which address the psychological, social, and ecological factors that contribute to youth violence. Intervention approaches should focus on the individual, school, family, and community. Appropriate interventions may include the provision of mental health services, counseling, individualized student safety planning, and parent education. School-based interventions may include mentoring programs, conflict resolution, academic support, and programs that address violence prevention, anger management, problem solving, and social skills training. Community involvement is also important and these interventions may include mentoring programs, youth groups, and the provision of other forms of prosocial recreational activities.

## Crisis Intervention

## Crisis Drills and Preparing for Active Shooters

According to the guidelines set forth by the US Department of Education, schools should conduct exercises and drills to prepare for incidents involving active shooters. Within these guidelines it is proposed that there are three options to choose from during an active shooter incident: run, hide, or fight. The fight option, which is considered a last resort, includes "trying to disrupt or incapacitate the shooter by using aggressive force and items in the environment" (U. S. Department of Education, 2013, p. 65). One example is the ALICE training model which a five stage strategic response to active shooter incidents in schools (2014). These stages include: (a) alert; (b) lockdown; (c) inform; (d) counter; and, (e) evacuate. Although this program has been implemented in schools across the nation, it is not without criticism. The most controversial aspect of this program is the "counter" stage which includes actions such as distrac-

tion, movement, distance, and teaching children to "fight back." Researchers and educators have criticized this notion by stating that it is inappropriate and potentially dangerous to be training children to confront an armed intruder (Trump, 2011). This criticism and lack of professional and academic endorsement has led the ALICE training institute to preface their program by saying, "ALICE does not endorse civilians fighting an active shooter" (2014).

In order to determine the efficacy of a program, such as ALICE, it is necessary to determine how children feel after completing the ALICE training. For example, does this program create a sense of security and increased awareness, or are children left feeling frightened and confused? Do these types of training programs take into account the unique needs of the students? How do these training experiences affect children with trauma histories? If retraumatization is experienced, do the children receive the necessary counseling afterwards? Many questions are raised when it comes to the appropriate implementation of crisis drills and training programs. According to Trump (2008), "recent years have brought out discussions of arming teachers, bulletproof backpacks, and now flying textbooks. Such proposals often prey on the emotions of anxious parents and educators looking for a 'quick fix' to the complex issues of school safety and emergency planning." The National Association of School Psychologists (NASP) has recommended taking an "options-based approach" which allows schools to implement measures and training that accounts for student "developmental levels, school culture and climate, and features specific to each school community" (2014). Although the NASP recommends expanding current safety practices, they acknowledge the lack of research supporting the implementation of armed assailant drills. Therefore, it is recommended that schools adhere to best practices, such as traditional lockdown approaches, that have proven effective over time and can ensure the physical and psychological safety of all students.

## Responding to School Tragedies

The best form of crisis response is one that has been planned in advance. School security planning and crisis preparedness should be implemented prior to the occurrence of a tragedy, with an emphasis on acting instead of reacting (Trump, 2011). An important component of crisis preparedness includes the development of a crisis response team and proper training of all response personnel. School crises are not limited to massive school shootings and encompass a wide range of events such as nonlethal violence, natural disasters, terrorism, and violent and nonviolent deaths of school members. Regardless of the source of the crisis, children, staff, and personnel must be given the opportunity to effectively process and recover from the tragedy in order to prevent the negative, long-term consequences associated with traumatic experiences. Crisis intervention should consist of a multidisciplinary approach and must address the physical, psychological, and emotional needs of everyone affected by the tragedy.

One of the most effective strategies in crisis response includes the psychological triage, or identification of those most in need of immediate services. Individuals are differentially affected by trauma, and factors such as geographic proximity, psychosocial proximity, and previous history of trauma, all influence the likelihood of a traumatic response. These factors are important when determining the necessity for follow-up or the long-term provision of services for individuals who have been exposed to trauma. In cases of school tragedy students and faculty must be given the opportunity to express the wide range of emotions they are experiencing. This can be done through group processing sessions which should give each and every individual the opportunity to talk about their personal experience, their immediate and current reactions to the tragedy, and their concerns and worries about the future. Importantly, individuals should be prompted to describe the coping skills they could utilize and the steps that could be taken to allow them to feel safer immediately and in the future.

## The National Emergency Assistance Team (NEAT)

The National Emergency Assistance Team (NEAT), founded by the National Association of School Psychologists (NASP), is a crisis intervention program which focuses on the mental health needs of those affected by tragedy. The training model, PREPaRE, stands for: Prevent and prepare for psychological trauma; Reaffirm physical health and perceptions of security and safety; Evaluate psychological trauma risk; Provide interventions; Respond to psychological needs; and, Examine the effectiveness of crisis prevention and intervention. This program offers workshops that focus on crisis prevention and preparedness, utilizing a comprehensive school crisis team, crisis intervention and recovery, and the roles of school-based mental health professionals. Research shows that individuals that participated in the training workshops were satisfied with the program and reported an improvement in attitudes and knowledge regarding crisis prevention and intervention (Nickerson, Serwacki, & Brock, 2012).

## Psychological First Aid

Psychological First Aid is an evidence-based crisis response program that was developed by the National Child Traumatic Stress Network and National Center for PTSD (Brymer et al., 2006). The goal of this intervention is to foster resiliency, improve adaptive functioning, and minimize the distress and negative effects associated with experiencing a traumatic event. This program can be used in individual or group formats and consists of eight core components (Fig. 4).

## Follow Up

An effective crisis intervention continues long after the tragedy has ended. Debriefing sessions should occur for the weeks following the tragedy to determine the effectiveness of the crisis plan and the potential need for additional services. Ongoing support and assistance should be available for an extended period of time so that all those who have been affected by the tragedy can continue to feel supported.

## Prevention

Although school-associated violent deaths are exceedingly rare, the fact that they do occur reinforces the importance of prevention and school safety planning. School safety is a prerequisite for an optimal learning environment and requires that students, teachers, and school officials feel protected and secure within the school setting. School safety planning must include the community as a whole and comprehensive safety planning necessitates collaboration among teachers, administrators, principals, students, parents, law enforcement, guidance counselors, coaches, additional school personnel, and mental health professionals (Fig. 5).

## School Safety Planning

School safety planning should begin with an assessment of current school practices. Specific concerns and issues should be identified and addressed so that the subsequent safety plan can be individually tailored to the meet the needs of the school. Data from school crime reports and administrative assessments of school safety should be collected and analyzed to determine problem areas that need to be addressed. Additionally, through the use of dialogues and surveys, information regarding school members' perceptions of safety and security should be obtained to help guide the safety planning procedures (Stephens, 1998).

## School Safety Pledges and Student Task Forces

One of the most important components of safety planning is student involvement, and every student should feel as though he plays an essential role in stopping school violence. Student task forces serve to increase student commitment to safety by enhancing personal connection to the school. Student safety pledges should outline expectations such as antibullying, and the reporting of threats, violence, and any other acts that

**1. Contact and Engagement**

• Deveoping an effective helping relationship by responding to survivors in a compassionate manner

**2. Safety and Comfort**

• Ensure physical safety, provide physical and emotional comfort, and protect from additional trauma.
• Attend to children separated from parents, survivors separated from family members, and those experiencing acute grief reactions.
• Provide information regarding disaster response and encourage interaction and social engagement.

**3. Stabilization**

• Calm, stabilize, and orient survivors who appear emotionally overwhelmed

**4. Information Gathering; Currents Needs and Concerns**

• Identify immediate needs such as physical illness, mental health concerns, and need for medication. Identify individuals experiencing extreme emotional reactions or expressing thoughts of self-harm.
• Gather information regarding nature and severity of traumatic experience, prior exposure to trauma, prior use of alcohol or durgs, and availability of social support.

**5. Practical Assistance**

• Clarify survivors needs, discuss an action plan, and assist survivor in implementing the action plan.

**6. Connection with Social Supports**

• Enhance access to primary support, facilitate use of immediately available support persons, model positive supportive responses, and discuss support-seeking and giving techniques following a disaster.

**7. Information on Coping**

• Provide information stress reactions and psychological reactions to trauma and loss; talk with children about the physical and emotional reactions following exposure to trauma.
• Provide information on coping, teach basic relaxation techniques, address developmental issues and reactions involving highly negative emotions, difficulty sleeping.

**8. Linkage with Collaborative Services**

• Provide direct link to available services and resources, provide referrals for children, adolescents, and older adults, and encourage continuity in helping relationships.

**Fig. 4** The core components of Psychological First Aid. Adapted from "Psychological First Aid: Field operations guide, 2nd edition" by Brymer et al. (2006).National Child Traumatic Stress Network and National Center for PTSD

may negatively impact the school milieu. Signing school safety pledges can serve as a source of empowerment for students by showing that they agree to adhere to a set of standards aimed at reducing violence and creating a safe and supportive school environment.

## Physical Security

In the last decade, schools have taken significant safety precautions and have increased the use of security measures to ensure student safety. In 1995 the percentage of students who reported being afraid of attack or harm while at school was 12%, whereas in 2011 this number dropped to approximately 4% (Robers et al., 2014). Increased security precautions being taken by schools include controlling access to the school building, installing security cameras within the school facility, increasing the presence of security guards during school hours, using an electronic notification system during emergencies, and implementing the use of security badges for school personnel. In 2011, 99.6% of youth surveyed reported that they were aware of security measures being implemented in their school, such as a student code of conduct, visitor restric-

**Fig. 5** Recommended members of a school safety planning team
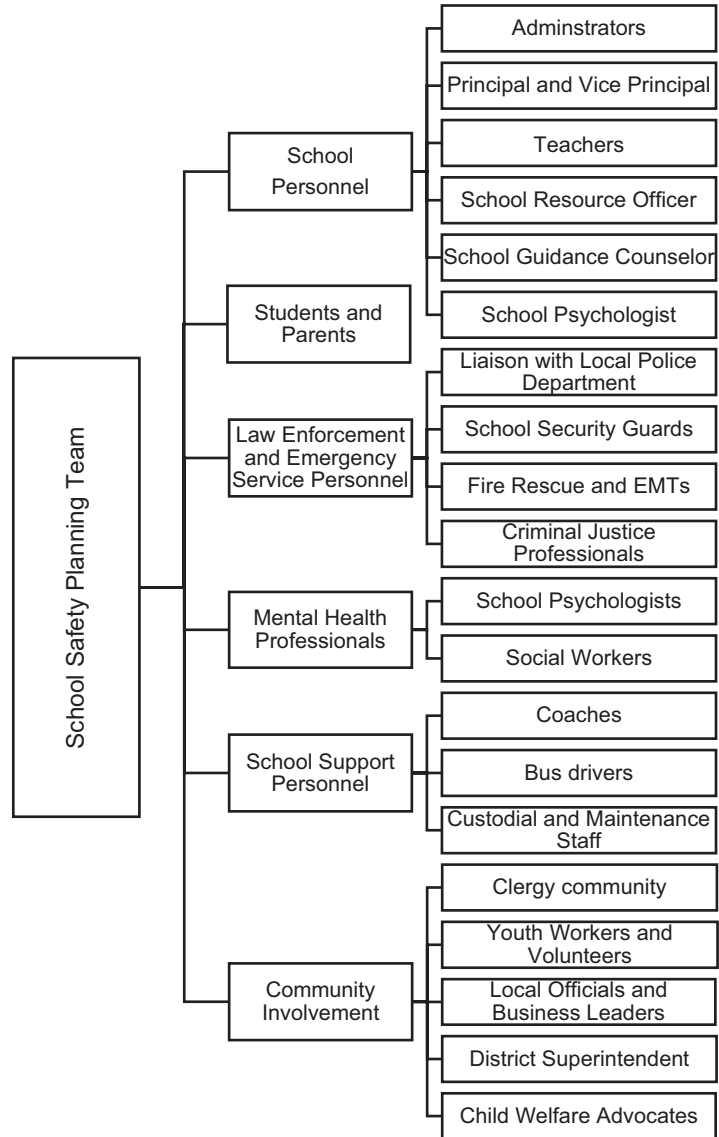
tions, additional staff supervision, use of security cameras, and the presence of security guards.

## School Environment

One of the most important factors fostering student willingness to come forward and report potential threats to school safety is a safe and supportive school environment in which students feel they will be respected and taken seriously (Fein et al., 2002). Although research shows that most attackers made others aware of their plans prior to the attack, these threats often went unreported. This is due to several factors, such as students fear of retaliation, disbelief regarding the sincerity of the threat, a desire to remain uninvolved, being conditioned not to go to school officials for help, and the belief that nothing would be done even if the threat was reported (Poland, 2003). A study conducted by the Secret Service found that school climate was the most significant factor in whether or not a student came forward with information obtained regarding a threat (Pollack, Modzeleski, & Rooney, 2008). Those who came forward expressed the

belief that they would be taken seriously by school officials, would not experience a negative response as a result, and that the threat would be addressed sufficiently. A safe school environment is one in which bullying, harassment, and victimization are not tolerated, and supportive relationships between students and staff are fostered through interaction and collaboration. This "climate of safety" should include respect and open communication, a sense of connectedness, and a positive, reciprocal relationship between students and school personnel (Poland, 2012).

## Getting Involved in School Safety: Program Examples

### Students Against Violence Everywhere (SAVE)

Students Against Violence Everywhere (SAVE) is a national organization comprised of student chapters that promotes collaboration and interaction and allows students an active role in enhancing school safety (2014). SAVE focuses on crime prevention, conflict management, and service projects by promoting nonviolent prevention techniques within the school and community. Goals of this program include education on violence and safe practices, empowerment through the acquisition of service skills, encouragement of positive peer interactions, and student engagement in violence prevention activities. This program encourages the formation of a safe school committee and the creation of a safe school plan that allows students to identify and address different problem areas related to violence within their schools. Additionally, students are given the opportunity to anonymously answer questions regarding their perceptions of school safety and offer suggestions of ways to enhance feelings of security within the school environment.

### Safe and Sound Schools

Safe and Sound Schools is a nonprofit organization created by Alissa Parker and Michele Gay, who lost their daughters during the Sandy Hook tragedy. This tragedy inspired the Safe and Sound School Initiative in which Mrs. Parker and Mrs. Gay work to provide communities with resources to improve school safety (2015). The "*Straight A School Safety Model*" provides a variety of recommendations and activities in the form of safety toolkits which focus on the following school safety steps: (1) assessment, (2) action, and (3) audit. These safety steps include preparedness and active awareness, the evaluation of potential external and internal threats to school safety, the development of safety procedures, and the implementation of security measures. Importantly, it is emphasized that school safety and security is an ongoing process and schools are encouraged to continually monitor, redefine, and update existing practices and procedures.

### Striving to Reduce Youth Violence Everywhere (STRYVE)

STRYVE is a national youth violence prevention program which promotes youth safety and health through collaboration with community and organizational resources and encourages the formation of positive relationships with supporting adults within the community (David-Ferdon & Simon, 2012). This model emphasizes using a continuum approach by implementing developmentally appropriate preventative measures throughout the life span. STRYVE focuses on targeting youth violence on the individual, interpersonal, community, and societal levels, and offers evidence-based resources and training programs to promote safety among youth within the community.

## Conclusion

Although violence is not rampant within schools, even one violent death occurring in what should be a safe and secure environment is unacceptable. In order to promote learning and foster academic excellence, students must be provided with an atmosphere in which they can learn and excel. This environment of safety is one in which students feel connected and respected and have a vested interest in improving the quality of their academic environment. Student involvement in safety planning and procedures is essential and every school should have programs in place that cultivate and encourage student participation.

Any act of school violence undermines the goals of education and threatens the stability and security of the school as a whole. Oftentimes, crisis intervention and response procedures are implemented subsequent to the occurrence of a tragedy; yet this approach is inadequate. The best form of intervention is prevention. School safety procedures should be delineated in advance and adhere to best practices that have proven effective over time. This is a continuous process and safety procedures should be assessed and updated on a continual basis to ensure that the unique needs of all students within the school are being met. Additionally, the responsibility of ensuring school safety does not fall on one individual. Instead, school safety is a collaborative process which requires involvement from students, parents, teachers, administrators, school personnel, mental health professions, law enforcement officials, and the surrounding community. It is up to all of us to make an active commitment toward safeguarding American youth.

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# Violence in Correctional Settings

Vera A. Klinoff and Philip R. Magaletta

The vast correctional population in the USA is a pressing societal problem with widespread social implications. As this population and the diversity of inmates it represents increase, so do the number of violent inmates. This, along with the acknowledgement that the conditions of confinement can ameliorate or contribute to violence in the correctional setting,[1] requires a heightened emphasis on the management of institutional violence (Powitzky, 1990). Understanding and preventing violence in such settings remains a central goal of effective correctional management and reentry programs for inmates. It is one of the common foundational objectives that facilitate necessary order in public safety systems, which, in turn, allows for the implementation of programs aimed at rehabilitation, prevention, and intervention.

Although the overall incidence of violence in corrections settings remains quite low, it is a truism that even one such incident is too many. Such incidents place corrections staff at risk, harm inmates and the community they live in during incarceration, and undermine society's interest in rehabilitation (Kiessel & Wurger, 2002; Peterson-Bali & Koegl, 2002). Understanding influences on inmate violence or misconduct has important implications for the effective management and treatment of correctional populations (Woolredge, 1998). Through an examination of factors involved in these incidents possibilities for prevention and intervention can emerge.

Thus, the purpose of this chapter is to: (1) provide a framework for organizing the prevalence and definitions/types of violence encountered in the correctional setting; (2) review, from an interdisciplinary perspective, five theoretical perspectives informing the causes of violence experienced in correctional settings; and (3) review the scientific literature relevant to violence and misconduct in correctional settings in order to explore empirically supported approaches to prevention and intervention for this problem. In providing this narrative overview, we aim to illustrate the complex processes involved in violence in the correctional setting. Since we will present a services, programs and management perspective on prevention and intervention, this chapter is addressed to mental health professionals, case management, custodial staff, and administrators who provide custody of and care to inmates in the correctional system.

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[1]As it is used in this chapter, the term corrections and corrections system refers to prisons. We recognize that theories on violence in jails and while on supervision in the community would take a related, but different theoretical tact and intervention emphasis than appears in this chapter.

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## Prevalence of Violence in Corrections

There has been a significant increase in the inmate population, to such an extent that punishment has become a legitimate institution in the USA; in fact, it has been termed "mass imprisonment" by Garland (2001, p. 1). In the same vein, the American imprisonment rate has been estimated at about 6–12 times the rate of other western countries. According to the Bureau of Justice, nearly 2.4 million individuals were incarcerated in 2008, with 1.6 million in state and federal prisons (West, Sabol, & Greenman, 2011), and 785,533 in local jails (U.S. Department of Justice, 2010). It is now commonly known that many of the inmates represented in these figures have serious mental health disorders (U.S. Department of Justice, 2006). One of the known by-products of the size of the correctional system is a substantial proportion of inmates that are violent offenders (Berg & DeLisi, 2006). Although prison violence data is extremely scant, the data available is compelling nonetheless. From 2000 to 2008, the state prison population increased by 159,200 prisoners, and violent offenders accounted for 60% of this increase (West, Sabol, & Greenman, 2011).

The rate of assault against Federal Bureau of Prisons staff was 70 per 1000 between 1994 and 1995 (Harer, 1992), and according to Useem and Piehl (2006), it has increased significantly since 1995. Further, a census of State and Federal Correctional Facilities (Stephan & Karberg, 2003) indicated that inmate on inmate assaults increased by 32% from 1995. According to a study by Sorensen and Cunningham (2010), 44.8% of Florida Department of Corrections inmates committed violations while arrested in 2003, 10.5% of which were potentially violent, and 2.9% of which resulted in injuries. Types of violence in the correctional setting include: threatening or committing harm or self harm, physical/sexual assaults on staff or other prisoners, fighting, riots hostage situations, and gang

warfare (Armstrong, 2009; Augustine & Fagan, 2011; Montgomery & Crews, 1998).

Studies examining the prevalence of sexual victimization among inmates suggest prevalence rates for contact or non-contact sex acts of 15% for male inmates, 27% for female inmates (Warren & Jackson, 2013), and combined rates of 20% (Jones & Pratt, 2007). Consequences of sexual victimization have been well documented; they include risks such as STDs or infections, deterioration of social relations and loss of social status, increased risk for future victimization (Mariner, 2001), and psychological effects such as PTSD (Kunselman, Tewksbury, & Dumond, 2002).

## Defining Violence and Violent Offenders

The operationalization of *violence* and *violent inmate* each present challenges, and are often difficult to define clearly. For this reason, we will refer to violence according to the definition by Megargee (1976, p. 12), which is "acts characterized by the application or overt threat of force which is likely to result in injury to people." This chapter will focus on "primary" violence committed by prison inmates, excluding "secondary" violence, which generally arises from the *organization's response to violence* (Toch, 1977). According to Powitzky (1990, p. 230), violent offenders are defined as "individuals who committed and were convicted of crimes involving violence, including but not limited to, murder, armed robbery, extortion, kidnapping, rape, assault and battery, aggravated assault, and arson." Monahan (1995) suggested that referring to violence as violent behavior would retain its conceptual integrity, as well as maintain the focus on violent actions, rather then on personalities.

Incarcerated individuals as a population are undoubtedly more likely to have histories of violence, and engage in hostile behavior when compared to the general population (Dignam & Fagan, 1996). Indeed, the fact that these individuals are

generally involuntarily confined contributes to a hostile atmosphere more conducive to violence than seen in other human-service work environments.

Violence is a form of prison misconduct and many studies examine it in conjunction with other types of misconduct that are often precursors to violence. The term *misconduct* is defined by Camp, Gaes, Langan, and Saylor (2003) as the failure to follow explicit rules; this includes behavior such as drug use, prison escape, property offenses, security-related offences, and others. For this reason, a significant portion of the reviewed literature regarding violence provides conclusions about both prison violence and misconduct.

## A Systems Framework

To understand the types of violence one might encounter in a correctional setting, it is imperative to begin with a systems framework that organizes violence from three important vantage points; first, the person (i.e., inmate characteristics and individual inmate acts of violence); second, the context (i.e., setting imbued characteristics that contribute to violence); third, the process of persons-in-context (i.e., a high-risk inmate in a high risk setting activating a process that culminates in violence). Accounting for persons, contexts, and the processes between them allows for a fuller consideration of the types and causes of violence as well as violence prevention and intervention in the correctional setting. This type of systems model was most notably proposed as an organizing tool by Bronfenbrenner (1977) and has been used regularly by scholars in the field on juvenile delinquency and early-onset antisocial behavior, as well as correctional mental health (Clements et al., 2007; Magaletta, Ax, Patry, & Dietz, 2005). Although understanding the distinction between inmate and contextual factors is important, true institutional violence incidents involve some aspect of each feature. Aggregate and individual variables manifest themselves in different degrees across theoretical perspectives of institutional violence, which are reviewed below.

## Theoretical Perspectives

For many years, the etiology of inmate behavior, specifically misconduct and violence, was a foundational concern in criminology. Criminological research has identified several theoretical perspectives on prisonization, the most widely cited of which have been the importation and deprivation model (Thomas, 1977). These theoretical perspectives aim to determine variables that influence the inmates' experiences and behavior in confinement. Interest in the importation–deprivation debate as a way of interpreting/predicting prison violence has declined over the recent years; however, methodological approaches such as hierarchical and structural equation modeling may stimulate continued research (Woolredge, Griffin, & Pratt, 2001 in Hochstetler).

## Importation Model

*People do prison the way they do life.—Anonymous*

The importation model poses that prison violence and misconduct is explained by inmate characteristics that were developed prior to incarceration, and brought into the prison environment (Thomas, 1977). Several investigations have aimed to answer questions related to prison violence, such as what makes some individuals more violent than others, the characteristics of factors imported into the prison environment, and the agency of importation. Empirical investigation has revealed that the presence of the following characteristics are predictive of prison violence and misconduct: having a shorter sentence (Cunningham & Sorensen, 2007; Steiner, Butler, & Ellison, 2014), having a gang affiliation (Cunningham & Sorensen, 2007; Sorensen & Pilgrim, 2000; Trulson, 2007), prior substance use (Steiner & Woolredge, 2008); a history of prison misconduct (Camp et al., 2003; Cunningham & Sorensen, 2007; Cunningham, Sorensen, & Reidy, 2005; Steiner et al., 2014; Steiner & Woolredge, 2008; Voorhis, 1993), prior arrests/incarceration (Camp et al., 2003;

Cunningham & Sorensen, 2007; Steiner & Woolredge, 2008), poor coping under conditions of adversity (Sorensen, Wrinkle, & Gutierrez, 1998), anger and antisocial traits (Wang & Diamond, 1999), and impulsivity (DeLisi, 2003). The most cited predictor for violence is being a younger inmate (Cunningham & Sorensen, 2007; Rocheleau, 2015; Steiner et al., 2014; Steiner & Woolredge, 2008); this may be because younger inmates have lower levels of commitment to conventional goals and less involvement in legitimate activities" (Hirschi, 1969).

It is well established that the presence of mental health problems is a significant predictor of engaging in institutional violence (Houser, Belenko, & Brennan, 2012; Steiner et al., 2014; Toch & Kupers, 2007; Wood & Buttaro, 2013). The presence of a mental illness and/or a co-occurring disorder (COD) (e.g., traumatic victimization and substance abuse) compromises an inmate's ability to adjust to the correctional environment and often leads to higher prison misconduct (Houser et al., 2012; Wood & Buttaro, 2013). Specifically, inmates with mental health disorders are more likely to exhibit difficulty following prison regulations and engage in more physical altercations with staff and other inmates (Wood & Buttaro, 2013); these behaviors are often symptomatic manifestations of their disorders when subject to environmental stressors. According to a study by Houser, 2015, female inmates with a COD a had a greater likelihood of receiving more severe disciplinary actions than inmates with a single mental health diagnoses or no diagnoses. Harsher penalties may also result in reduced access to treatment services (Cohen, 2004 in Houser 2015), often resulting in the exacerbation of symptoms, hindered rehabilitation, and poor reintegration to the community upon release.

On the other hand, *person* variables, such as older age, higher education (Cunningham & Sorensen, 2006a; Toch & Adams, 1986 in Cunningham & Sorensen, 2007), and longer sentences, were related to lower rates of institutional infractions (Cunningham & Sorensen, 2007). In fact, property offenders have higher rates of institutional infractions and prison violence than inmates convicted of violent offenses, including homicide (Cunningham et al., 2005). Additionally, there is mixed evidence regarding sex offenders and institutional violence; Rocheleau (2015) found that sex offenders are less likely to be involved in prison misconduct, while a review by Steiner et al. (2014) found that sex offenses were positively related to prison misconduct. Inmates who were employed immediately before incarceration and who remain married during their sentence may be more likely to conform to institutional rules since they have more to lose. Similarly, individuals with higher levels of education before confinement may be more invested in conventional goals and less likely to engage in misconduct or violence in prison (Woolredge et al., 2001).

## Deprivation Model

In comparison, the deprivation model posits that prison misconduct and/or violence is a direct product of the prison environment, independent of patterns inherent in the inmate. Criminologists have theorized that institutional characteristics affect the frequency of misconduct both during and after release by increasing/decreasing opportunity (e.g., security level and operations), increasing skills and motivation to live a crime-free life (e.g., vocational and rehabilitation programming), or having a criminogenic effect (e.g., exposure to delinquent activity) (Jiang & Fisher-Giorlando, 2002; Poole & Regoli, 1983).

Despite extensive importation–deprivation debates by several scholars, most empirical research on inmate misconduct has focused on individual-person rather than institutional context-level factors. Consequently, institutional elements of prisons have not often been examined to explain inmate violence/misconduct (Camp et al., 2003; Woolredge et al., 2001).

Specific institutional or, context variables that have been found to contribute to rates of prison misconduct include crowding (Gaes, 1994), security level of the facility (Cooley, 1993), and management style and/or competency of the correctional administration (DiIulio, 1991).

Findings for the relationship between prison crowding and misconduct have been conflicted, but most studies suggest a positive relationship. Also, the majority of studies on prison crowding have focused on the relationship between crowding and inmate assault rates. Although some scholars (Anson & Hancock, 1992; Woolredge et al., 2001) found a significant positive relationship between prison crowding and prison violence/misconduct, Camp et al. (2003) found that crowding increased odds of misconduct in only 2 of its 14 tested models, and only by 1%; this cannot be used for implications on theoretical or methodological grounds. Investigators that found a positive relationship between prison crowding and violence speculated that more crowded facilities bring inmates physically closer to one another, which hinders adequate supervision of inmates (Anson & Hancock, 1992; Woolredge et al., 2001) and has been linked to greater stress-related mood disorders (Paulus, McCain, and Cox, 1985).

There have been compelling findings regarding the influence of context on prison violence. Specifically, Camp et al. (2003) found that being at a prison with inmates who had a higher collective criminal propensity (measured by the average security level of inmates) was related to increased violent and drug-related misconduct. They also found that institutions with a higher percentage of white and female staff had a higher incidence of all types of misconduct, suggesting that correctional officer demographics may be linked to misconduct.

Finally, other investigators have examined the impact of the prison environment on inmate misconduct in an effort to allow for the design of safer and more effective prisons. Select case study investigations have suggested that prison operations and management shape social conditions that lead to either devastating results (e.g., increased violence, prison riots), or prison reform (Colvin, 1992; Goldstone & Useem, 1999).

Bottoms (1999) contended that the prison environment impacts inmate misconduct, especially interpersonal violence, above and beyond the effect of inmate characteristics. He proposed the presence of six organizational factors that influence inmate behavior: (1) prisons being "total institutions" (Goffman, 1961); (2) the administra-

tion of discipline/punishment; (3) routine activities, such as mealtimes, working, and "locking up," which set the rhythm of the institution; (4) prison routines and how inmates assimilate to them; (5) the dynamics between correctional officers and inmates (Sykes, 1958); and (6) the effect of the managerial approach on its institutional culture (i.e., regimented and restrictive vs. more relaxed and "democratic"). This argument was supported Camp et al. (2003), who found that almost all types of inmate misconduct are affected by the institutional environment independent of individual-level inmate characteristics.

## Administrative Control Model

The administrative control model identifies a mix of other person and context-level considerations in the form of prison officials, administrators, and governance as central determinants of inmate behavior. Authors supporting this theory have found that prisons containing an efficacious management, assertive leadership, a healthy custodial culture, effective staff interaction with inmates, and programming opportunities had less incidences of violence and misconduct than facilities that lacked organization, management, and control (DiIulio, 1991). Meanwhile, other researchers have found that control-oriented prisons where the administration had an overwhelming presence created environmental conditions that promoted inmate misconduct and violence (Poole & Regoli, 1983). Namely, the "rigidity" of the overly administrative environment may ingrain prisonization among inmates, and, in turn, lead to increased delinquency (Berk, 1996; Reisig, 2002). In support of this notion, Huebner (2003) found that a coercive control approach was not an effective management tools in comparison to incentive-based approaches designed to foster commitment in prison rules and goals.

## Life-Exposure Model

According to the life-exposure model, possessing a criminal history alters an individual's understanding of the meanings of crime in a way that is

different than the law-abiding perspective, which in turn, facilitates further criminal involvement (Irwin, 1970). In opposition to the deprivation model, Hochstetler and DeLisi (2005, p. 265) stated, "a premise that institutional conditions drove inmate behavior without specifying which inmates were likely to respond would certainly seem foreign to most experts in prison classification."

The literature has indicated the relationship between self-perceptions and criminal behavior, and has identified a few consistent attitudinal elements that promote offending (Menard & Elliott, 1994). Common attitudes found in offenders include: (1) emphasizing spontaneity and toughness; (2) defining themselves as an opposition to authority; (3) viewing their life experiences as conducive to survival in the streets and/or prison (Irwin, 1970). Their propensity to engage in crime and dangerous interactions in prison was directly related to the degree that they had a crime-conducive identity (Hochstetler & DeLisi, 2005). By the time an individual offends in an institutional setting, it is likely that they are already embedded in a lifestyle where offending, risk taking, and deviant behavior is common (Hochstetler & DeLisi, 2005). Furthermore, it has been found that perceived prison conditions correlated with individual characteristics of inmates, but not with actual prison conditions. This indicates that subjective experiences of prison were likely to moderate the effect of environmental variables and an inmate's actions (Hochstetler & DeLisi, 2005).

Life-exposure theorists stipulated that individuals who placed themselves in situations where criminal activity was commonplace (e.g., bars, drug-transaction territory) held a higher chance of offending and/or being victimized (Li, Priu, & MacKenzie, 2000). The same applies to prison environments, where certain niches are associated with dangerous activity. A salient example of this is that gang membership in prison increases the likelihood of prison violence and/or misconduct among individual inmates (Gaes, Wallace, Gilman, Klein-Saffran, & Suppa, 2002).

## Integrated Processes Level Model of Prison Offending

Although many studies have found support for the importation and deprivation model as primary contributors to inmate misconduct and violence, numerous investigations support both contentions, and suggest that prison violence is due to an interaction, or the processes between the person, or individual inmate factors, and context, or institutional factors (Bonta & Gendeau, 1990; Hochstetler & DeLisi, 2005; Jiang & Fisher-Giorlando, 2002; McCorkle, 1995). Specifically, while the context may explain comprehensive differences in the incidence of violence between institutions, individual factors contribute to the likelihood that an inmate would participate in unruly or violent behavior (Bonta & Gendeau, 1990).

An early review by Gendreau (1997), emphasized that an integrated approach posing that prison violence resulted from both institutional and individual variables is the most effective way to conceptualize institutional misconduct and violence. It was further contended that characteristics imported from the free world place individuals at a higher or lower risk of engaging in violence and misconduct in prison.

Some investigations posited that a mismatch of inmate type and institutional environment heightened the risk of victimization and/or offending (Wright, 1991). Particularly, it has been suggested that inmate characteristics influence the way they interpret and react to certain institutional elements, such as overcrowding (Woolredge, 1991). Early investigations found different psychological propensities predicted risk taking (Garofalo, 1986). Additionally, Poole and Regoli (1983) found that certain institutional elements fostered certain inmate *codes*, (i.e., activities) which mediated inherent inmate characteristics; thus further supporting the integrated model.

Further literature suggested examining individual and aggregate influences simultaneously in their models. Woolredge et al. (2001) used a

hierarchical model with multilevel data to examine the interaction between individual predictors (e.g., inmate's demographic information, arrest history, employment history, and sentence length) and an aggregate predictor (prison crowding, or the ratio of inmates to a facility's design capacity). The study found that higher levels of crowding were linked to higher likelihood of inmate misconduct. Results also showed that inmate age and misconduct were inversely related. Further, there was partial support for a positive relationship between sentence length and likelihood of misconduct. Their findings suggested that models including both individual and aggregate-level predictors can increase the understanding of inmate deviance, as it allows to produce more valid estimates of aggregate factors while controlling for individual factors. Camp et al. (2003) investigated individual and aggregate influences simultaneously in their model, and demonstrated that the influence of staff, inmate, and ecological variables affect the probability of many forms of misconduct, including violence, over and above individual characteristics of inmates.

Woolredge (1998) examined 581 inmates housed under different conditions, and found that there was a significant association between prisoners' lifestyles and victimization in prison, including physical assaults by other inmates and theft of personal property. Specifically, inmates who were typically removed from the social milieu and were more privileged in the free world had a greater risk of being victimized. It was also found that the chance of assault was increased by time spent in recreation, and decreased by hours devoted to education. Participating in both recreation and vocational training increased the risk of victimization by theft. Based on these results, the authors recommended that future research should examine the characteristics of both victims and offenders, factors perpetuate their exchanges, and the effects of exposure to high risk situations in prison.

The literature has demonstrated that one of the most high-risk situations in the prison environment was participation in the informal inmate economy. This type of interaction served as an avenue for further offending and/or victimization, such as inmates taking advantage of others, as well as enforcing unpleasant forms of debt repayment (Irwin & Austin, 1997; Toch, 1977). This finding was later confirmed in a study by Hochstetler and DeLisi (2005). Two other variables indirectly influenced offending through participation in the inmate economy and witnessing victimization: criminal attitudes increased offending, and self-control decreased offending. These results support lifestyle-exposure interpretations of prisoner misconduct; offenders with criminally oriented attitudes and low self-control did their time differently than others, as they were more likely to engage in illicit interactions with other inmates.

## Inmate Rehabilitation: Correctional Treatment Programs and Psychological Services

The most cited challenge in the correctional response to institutional violence and misconduct is in the balance between preserving the safety of civilians, inmates, and staff while maintaining the inmates' constitutional rights to privacy, due process, and freedom of choice. The breadth of functions within the correctional institution has given way to a considerably complex mission in the contemporary correctional setting, characterized by "punishment, incapacitation, deterrence and rehabilitation" (Powitzky, 1990, p. 228). Public safety, custody, and security encompass what is often regarded as the primary mission of corrections: the incapacitation of inmates from committing further crime, enforcement of their sentence, and the safety of the community. Although the secondary mission, *Rehabilitation,* has existed throughout the history of the US correctional system, it has gained the most empirical momentum and public support within the past two decades. This model has now taken on a distinctively services based approach both in terms of the workforce required and the interventions implemented. It is not uncommon to now see service delivery concepts being mapped onto

management approaches with inmates, such as treatment, diagnosis, prognosis, etc.

From a psychological services perspective, rehabilitation refers to a wide range of psychosocial programs and/or services that are developed to aid offenders in addressing factors related to their offending/maladaptive behavior, and, in turn, achieve a higher quality of life (Wormith et al., 2007). During the 1970s Lipton, Martinson, and Wilks (1975) assessed evaluations of criminal rehabilitation programs between 1945 and 1967, and concluded that rehabilitation programs did not have significant effects on criminal recidivism. This review catalyzed a wave termed the "nothing works" viewpoint, which influenced political and public arenas towards the dispute of the rehabilitation model and subsequent defunding of several programs.

During the few decades that followed, numerous program evaluations, literature reviews, and meta-analyses (Andrews & Bonta, 2010; Cullen & Gendeau, 2000; Lipsey, 1999; Lipsey & Cullen, 2007; Lipsey & Wilson, 1998; Losel, 1995; Redondo, Sanchez-Meca, & Garrido, 1999), have accumulated empirical support for the effectiveness of correctional treatment programs. These meta-analyses revealed that across evaluation studies, the recidivism rate is, on average, 10% points lower for the treatment group than for the control group. In the following sections, we provide a brief overview of the models that guide interventions in the correctional system. Particular attention is paid to those designed to address a variety of issues including mental health-related problems, inmate anger, misconduct, and violence, and criminal recidivism. Where available we review their aims, efficacy studies, and implications for the addressing prison misconduct and violence.

## Risk Needs Responsivity (RNR)

The Risk-Needs-Responsivity (RNR) model (Andrews, Bonta, & Hoge, 1990; Andrews, Bonta, & Wormith, 2006) is a risk management approach to offender assessment and rehabilitation that has become one of the most widely used frameworks for interventions in corrections. The core of the RNR model contains the following three principles: (1) *risk*, where intervention intensity is matched to the risk level of recidivism in the offender; (2) *needs*, where the program focuses on criminogenic needs of the offender (i.e., elements that reinforce delinquent behavior), and (3) *responsivity*, where the intervention is delivered in a way that enhances the offender's reception to services (e.g., their learning style, readiness for treatment and cultural background).

With reference to *risk*, it is argued that treatment should be matched to the risk of the offender, and often times reserved for moderate to high-risk cases. Actuarial and clinical risk assessments are commonly used to determine an offender's risk level.

The *needs* principle states that treatment interventions must address offender characteristics that are empirically linked to recidivism, also known as criminogenic needs. Andrews and Bonta (2010) identified the Central Eight criminogenic needs, which include the following: (1) history of antisocial/criminal behavior; (2) antisocial personality pattern (impulsive, pleasure seeking, aggressive, callous); (3) antisocial cognition (attitudes, beliefs, and values that are pro criminal); (4) antisocial peers; (5) challenges with education or employment; (6) dysfunctional interpersonal and/or familial relationships; (7) a lack of pro social no leisure activities; (8) substance abuse. In relation to the responsivity principle, it emphasizes the importance of utilizing evidence-based treatment methods to reduce recidivism; these are typically cognitive-behavioral in nature due to their empirical support and clear goals (Landenberger & Lipsey, 2005; Pearson, Lipton, Cleland, & Yee, 2002; Wilson, 2005).

Several meta-analytic investigations have supported the Risk-Needs-Responsivity (RNR) model as effective in the reduction of recidivism among offenders (Andrews & Dowden, 2005; Hanson & Morton-Bourgon, 2005; Lipsey & Cullen, 2007; Phillips et al., 2005), and these findings continue to be supported by more recent studies (Andrews & Bonta, 2010) on both violent

and non-violent offenders (Canales, Campbell, Wei, & Totten, 2014). Further, the incorporation of the RNR model has been regarded as imperative for positive treatment outcomes; in fact, programs are less likely to be effective without adherence to RNR according to researchers (Andrews et al., 2006; Andrews & Dowden, 2005; Latessa, 2004).

Although there has been widespread support for the RNR model in correctional treatment, a few researchers have posed criticisms of the model. Specifically, it has been opined that RNR offers limited collaboration between the therapist and participant, that there is an over-emphasis on avoidance of negative consequences rather than treatment goals, limited attention to factors not directly linked to problem behavior (i.e., self-esteem or personal distress). On the contrary, scholars supporting the RNR model emphasize that the model has evolved significantly since the 1980s and 1990s, now focusing more on a positive and comprehensive image of offenders, with a clear focus on management and organizational issues (Andrews & Bonta, 2010; Looman & Abracen, 2013).

## Good Lives Model (GLM)

Additional to their criticism of RNR, Ward and Stewart (2003) proposed an alternative approach called the Good Lives Model (GLM), a strength-based rehabilitation model. The GLM asserts that aiding offenders in developing adaptive means of accomplishing goals that are personally meaningful to them will enhance the offender's level of psychological well being and consequently decrease the likelihood of criminal recidivism (Ward & Stewart, 2003). According to GLM, offending behavior occurs as a maladaptive or socially inappropriate attempt to secure primary goods; therefore, the aim of correctional intervention should be to promote access to *Primary Human Goods*, via acceptable means.

The Primary Goods described by Ward and Gannon (2006) are the following: (1) life (including health and related functioning); (2) knowledge, (3) excellence in work (including experiences

of mastery); (4) excellence in play (Including experiences of mastery); (5) excellence in agency (i.e., autonomy); (6) inner peace (i.e., freedom from inner turmoil and stress); (7) friendship; (8) community; (9) spirituality (in the broad sense of finding meaning and purpose in life); (10) happiness; and (11) creativity. The enhancement of these primary goods would act as a vehicle for preventing and/or reducing prison misconduct.

A common criticism of the GLM is its limited empirical support (Bonta & Andrews, 2003; Looman & Abracen, 2013). Additionally, skeptics of GLM contended that the limited empirical studies on GLM do not reveal better results on recidivism than RNR, and that its principles are a semantic rewording of the RNR model and does not add anything new to the offender rehabilitation literature (Looman & Abracen, 2013). Further, Harkins, Flak, Beech, and Woodhams (2012) found that GLM may lead offenders to feel better about themselves and the future. However, results indicated that they also had less awareness of risk factors and self-management strategies than RNR group. Studies support the notion that the incorporation of GLM principles in interventions for offenders enhances engagement and contributes towards the establishment of positive therapeutic alliance and reduced misconduct. Strength-based frameworks such as GLM pose that it is possible to incorporate the principles of RNR while decreasing patient resistance through the use of GLM.

## Cognitive Behavioral Approaches

Cognitive Behavioral Therapy (CBT) considers mental health problems to be a product of maladaptive or dysfunctional thought processes including cognitive distortions, misinterpretations of social situations, and faulty logic (Beck, 1976; Beck, 2011). Cognitive behavioral therapies used in the correctional setting include a variety of validated techniques, including cognitive restructuring, coping skills, and problem solving.

Cognitive Behavioral-based treatments have gained momentous empirical support regarding their effectiveness in reducing recidivism and increasing positive outcomes in inmate

populations. In a review of 300 correctional programs, general cognitive-based programs were found to reduce offender recidivism by the greatest percent when compared to other interventions (Aos, Miller, & Drake, 2006). When looking at recidivism reductions, Wilson (2005) found that CBT was effective for reducing criminal behavior from 20% to 30%. Landenberger and Lipsey (2005) also found that no one CBT program has significantly larger treatment effects than the mean of all the others meaning that the general CBT approach, not any specific version, is responsible for overall effects on recidivism. Further, it was found that the most favorable results were using CBT and social learning approaches that target criminogenic needs (e.g., criminal thinking patterns) among higher-risk offenders (Andrews et al., 2006; Landenberger & Lipsey, 2005). Specifically, a metanalysis of 58 studies by Landenberger and Lipsey (2005) revealed that the incorporation of the following treatment characteristics was positively related to greater effect size: individual attention, cognitive restructuring (e.g., modifying thinking distortions and errors), anger control (i.e., training for identifying triggers and cues that arouse anger), and interpersonal problem solving (i.e., skills for dealing with interpersonal conflict and peer pressure).

Although CBT interventions have generally gained favorable empirical support, studies have found differing effect sizes related to recidivism outcomes. These differing effect sizes have been attributed to the differing quality of study designs, subject risk levels, and varying fidelity to the CBT model (Lipsey & Landenberger, 2005).

*Moral Recognition Therapy (MRT) and Reasoning and Rehabilitation (R&R).* The two dominant cognitive-behavioral programs for offenders are Moral Reconation Therapy (MRT) and Reasoning and Rehabilitation (R&R). MRT was developed by (Little & Robinson, 1988); it is a theory based on a combination of CB elements as well as Kohlberg (1976) cognitive-developmental theory of moral development. Specifically, the theory asserts that moral development is negatively associated with behavior that is harmful to others, therefore, the interven-

tion aims to address presumed social, moral, and behavioral deficits in offenders. In a review by (Wilson, 2005), the mean recidivism effect size across evaluations of MRT is positive and statistically significant (effect size = 0.36).

Reasoning and Rehabilitation (R&R) therapy was developed by Ross, Fabiano, and Ewles (1988) and is based on the principle that offenders have cognitive and social competency deficits. Rather than focus on moral reasoning such as MRT, the program aims to support the offender in enhancing self-control, cognitive style, interpersonal problem solving, social perspective taking, critical reasoning, and prosocial values. R&R is significantly effective at reducing future criminal behavior among offenders, though the overall effect size for reviewed studies is small when compared to MRT (0.16). When evaluating the effectiveness of R&R programs for offenders with severe mental illness, it was found that the intervention yielded improvements in both self-reported and informant rated measures of social problem solving, disruptive behaviors, violent attitudes, and social/psychological functioning (Yip, Gudjonsson, Perkins, Hopkin, & Young, 2013).

## Anger Management Under CBT

Anger is generally considered to act as a precursor to aggressive and violent behavior and is a significant antecedent to physical aggression during institutionalization (McNeil, Eisner, & Binder, 2003; Novaco, 1994). Consequently, anger has served as an effective focus in correctional interventions that focus on the reduction of behavioral aggression (Tafrate, Kassinove, & Dundin, 2002). These interventions generally adhere to a CBT framework, where they focus on cognitive appraisals of current and past situations, examine scripts associated with threat and retaliation often seen in aggressive behavior, and aid participants in adopting a balanced perspective to common cognitive distortions. Lindsay et al. (2004) found that 14% of participants in an anger-oriented intervention acted out during follow up, while 54% of patients in the treatment control condition continued to be physically assaultive. Novaco and Taylor (2015)

found that anger interventions significantly reduced assaults during 12-month period post-intervention, as compared to a 12-month pre-intervention period in forensic hospital patients. Additionally, the reduction in assaults was associated with measured reduction in anger over the course of treatment, indexed by multiple anger psychometric scales as well as staff ratings of patient anger. These results provide support for anger treatment implemented in a case-formulated, individualized CBT format. It should be noted that such an approach differs from most current prison anger management programs; in fact, an investigation by Heseltine, Howells, and Day (2010) found low efficacy for anger management programs in the prison system. They identified an insufficient level of treatment intensity and treatment readiness at the time of the intervention as potential contributor to these findings (Heseltine et al., 2010; Howells, Day, Williamson, & Heseltine, 2005).

## Mental Health Programs: Concluding Thoughts

The benefits of programming have been overwhelmingly cited by the literature and have been found to reduce misbehavior. Although variation in rehabilitation outcome studies exists, the majority of studies indicate that correctional rehabilitation programs are effective and, in fact, necessary (Lahm, 2009; Rocheleau, 2015). Since the results of outcome studies hinge on several moderators, including the quality of the research itself, the qualifications of facilitators, and whether the population is matched appropriately to the intervention, research questions have evolved from establishing the efficacy of these programs, to discerning what elements separate effective and noneffective programs. In other words, research, practitioner, and policy communities have moved from a period of "nothing works," to "what works in what way" (Andrews et al., 2006). In order to continue the identification of effective and relevant treatment for violent offenders, it is important to continually perform well-designed efficacy evaluation of current treatment programs. Efficacious program evaluation plans implement a multisource assessment, including: recidivism, behavioral assessment, functional domain assessment, collateral assessment, and quality of care (Wormith et al., 2007).

## Institutional Unrest: Staff Responses and Role in Intervention and Prevention

Correctional facilities operate on the basis of established correctional standards, are implemented through policies and are typically reviewed continually in a series of operational guidelines, reviews, and performance measures (Armstrong, 2009). Consistency in the application of these policies and procedures are the bedrock upon which institution security is built. Indeed, it is well documented that a strict adherence to established security procedures, staff training in interpersonal communication (e.g., active listening) as well as self-defense, maintaining an adequate staff-inmate ratio, and providing meaningful programming opportunities are one of many management techniques that reduce the risk of violence and other related problems within the correctional environment (Dignam & Fagan, 1996). According to Armstrong (2009) "in a secure facility, staff and inmates perceive consistency, fairness, and justice as uniform standards applied in the absence of discrimination" (p. 463). When security procedures fail or are evaluated as sub-standard in practice, there should be concern for inmate unrest; this requires a variety of safety, security, and emergency response procedures in order to diffuse volatile situations, maximize the safety of staff and inmates, and ensure prompt justice and appropriate disciplinary measures for the assailant.

## Correctional Management

In order to maintain facility security and prevent institutional violence, it is imperative for the administration and staff to control all operational

components systematically and consistently. In order to achieve this, a comprehensive security-auditing program is essential to ensure compliance with established standards. A complete operations manual outlines essential areas of management such as: (1) proper reporting procedures; (2) practices for managing security tools (e.g., weapons and keys); (3) contraband search techniques and schedules; (4) methods for conducting urinalyses, inspections and visitations; and (5) procedures for maintaining inmate documentation (Armstrong, 2009).

Additionally, a clear chain of command with well-defined roles of authority, and effective communication with staff and inmates significantly reduces the risk of institutional unrest. Effective management systems need to value the importance of high-quality preservice and in-service trainings of salient topics such as cultural sensitivity, unrest predictors, and mental health issues, given that generally, there is cultural and socioeconomic disparity between inmates and correctional staff. Further, the most effective way of gauging the climate of the facility is for managers to remain engaged with correctional staff, who are "the facility's eyes and ears" (Armstrong, 2009, p. 464). This is most successfully accomplished when the administration maintains a physical presence in the facility; this is done by regularly walking through the facility to observe and evaluate the climate first hand, interact with the staff and inmates, identify predictors of violence or unrest, and address any problems that may arise (Armstrong, 2009). Management through an active and involved administration leads to accurate evaluation of the institutional environment and, in turn, timely and effective resolutions before a crisis develop.

## Crisis Intervention Team/Crisis Negotiation Team

The utilization of Crisis Intervention Teams (CIT) or Crisis Negotiation Teams (CNT) within a facility is a highly effective way to prevent, deescalate, or resolve crisis situations. Crisis Intervention and/or Crisis Negotiation provide techniques to diffuse potentially violent situations and, consequently, decrease the likelihood of the use of force. These approaches effectively educate personnel on relevant topics such as mental health issues, suicidal behavior, and diffusion techniques such as active listening (Van Hasselt et al., 2006). Since its inception in law enforcement, crisis negotiation strategies have aided law enforcement in attaining successful resolutions in thousands of crisis situations, including barricade, hostage, kidnapping, and attempted suicide cases (Birge, 2002; Regini, 2002). Further, it has saved the lives of many public safety personnel who responded to crises such as these (Regini, 2002).

Additional to the employment of these specialized teams, it is crucial for all correctional staff to receive training in these skills, as everyone possesses an important role in the outcome of a crisis situation. Equipped with the right skills, any personnel that comes into contact with a distressed/aggressive inmate can reduce the likelihood of a crisis or violent episode by engaging the individual effectively (Augustine & Fagan, 2011).

## Employee Assistance Program (EAP)

Many correctional systems have several established emergency procedures that are initiated as a response to institutional violence. An important component to these procedures is utilization of the Employee Assistance Program (EAP), which is designed to provide and/or refer employees and their families to appropriate psychological support following their experience of a critical incident on the job. Services that are implemented include individual, family, group level, and multisystem-level interventions (Dignam & Fagan, 1996).

If a larger number of correctional employees are involved in an incident of institutional violence, such as a homicide or a riot, additional interventions of a larger magnitude may be utilized. This approach is designed to buffer the effects of potentially traumatic incidents on victims and can be associated with positive mental health and occupational outcomes (Devilly, Gist, & Cotton, 2006).

## Conclusions

The review of this literature presented multiple perspectives on various topics pertaining to violence and misconduct in corrections. These issues included, the etiology of deviant institutional behavior through the vantage point of different theoretical perspectives, multiple schools of thought regarding management of violent inmates, and a review of correctional responses to incidences of institutional violence. The intention of the authors is to provide a breadth of information to use as a foundation for the prevention, intervention, and response to violence and misconduct in corrections.

Many of the mentioned perspectives have gained empirical support through years of investigations by several scholars, but when considering a direction for practical implications, Powitzky characterizes an integrated approach as most appropriate by stating: "as in most societal dilemmas, the truth lies somewhere in between the several viewpoints" (Powitzky, 1990, p. 234). At the same time, it is also important to keep in mind that a one-size-fits-all approach is not likely to be effective in addressing the discussed problems; management approaches and responses to violence and misconduct presumably vary from system to system, and time to time. It remains likely that taking a fair and flexible approach; one built upon this foundational understanding of violence in correctional settings and its multiple determinants, will lead to effective outcomes.

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# Part VIII

# Special Topics

# Crisis (Hostage) Negotiations

Karen N. Guszkowski and Vincent B. Van Hasselt

## Introduction

### Evolution of Crisis Negotiations

*Best way to avoid defeat is to know when and where not to engage, as well as when to engage.—Bolz (2001), p. 61*

Within the academic community, crisis (hostage) negotiations has only recently begun to attract attention. However, the implications of these negotiations have been felt by law enforcement and the community-at-large for decades. Hostage-taking incidents are not a new phenomenon. There are even biblical references, such as Genesis 14:12–16, to use of force as a means to resolve these types of events and references to taking hostages as rewards or as a strategy in war. Throughout history there is evidence of hostage-taking incidents that were primarily aimed at ransom for goods, securing barters, or as treaties against war. Such examples include European nations holding captive nationals of the newly conquered territories and African nations claiming conquered enemies as slaves. Hostage-taking incidents were also used for coercion of govern-

ments and nations, with one of the earliest examples that affected the USA being the capture of Santo Thomas University in the Philippines by the Japanese in 1945 (Hatcher, Mohandie, Turner, & Gelles, 1998). Not surprisingly, this first wave in the history of crisis negotiations was less about negotiating and more about tactical resolutions. In response to hostage-taking incidents becoming more prominent for American law enforcement (due to more frequent airplane hijackings and interrupted armed robberies), a Special Weapons and Tactics Team (SWAT) was developed by the Los Angeles Police Department in 1967 to respond to such incidents with a swift forceful approach (Hatcher et al., 1998).

While effective, the approach utilized by SWAT in the 1960s and early 1970s was called into question after two specific events. These are credited most with being true catalysts for change from the status quo of the time (tactical resolutions). They were the Attica Prison Riot in New York in 1971 and the "Munich Massacre" at the 1972 Olympic games (Augustin & Fagan, 2011). The Attica Prison Riot was a 4-day standoff with the inmates who had taken over the prison and held hostages. Over 1200 inmates were able to secure a portion of the facility known as D yard and held prison guards as hostages while making various demands to administration and State Police. While most of the inmate demands were regarding the reported deteriorating living conditions of the prison, inmates also

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asked to negotiate amnesty for all crimes committed during the riot for the inmates in D yard. In the morning of day four of the standoff, State Police were ordered to deliver an ultimatum to surrender, which was refused. State Police then proceeded to take the facility back by force which resulted in the deaths of 29 inmates and 10 hostages (Wicker, 1994).

In the 1972 Munich Olympics, a group of Palestinian terrorists entered the Olympic athletes' village and killed two Israeli athletes before capturing nine Israeli athletes as hostages. They demanded the release of 200 Arab prisoners being held in Israel, and safe transportation for themselves to Egypt. Negotiations were attempted, but were seen as a stall tactic by the terrorists who continued to threaten harm to the hostages if their demands were not met. Further negotiations lead to the Palestinian terrorists taking the hostages to an airstrip where German police had tactical units situated on rooftops. At that point, police demanded the hostages be released and that the terrorists surrender. The demand prompted a Palestinian terrorist to throw a grenade into the helicopter where the Israeli athletes were held which, in turn, prompted German police to open fire. The incident ended with one police officer, 10 of the 12 Palestinian terrorists, and all of the Israeli hostages dead (McMains & Mullins, 2015).

Prior to the Munich Massacre, in 1971, a legal precedent was established in Downs v. USA. This case was litigated after George Cliff had taken his wife hostage and hijacked a charter plane with a gun and explosive device in hand. When the plane had to land to refuel, the law enforcement agency that handled the situation decided to go tactical by disengaging breaks and engines on the plane when the hostage-taker refused to come out. Shortly after the engine was taken out by a sharpshooter, gunshots were heard inside the plane. Upon entering the plane, both the pilot and the hostage were dead and the hostage-taker had been fatally wounded. The pilot's wife filed a civil suit against the law enforcement agency handling the situation, claiming negligence that resulted in her husband's death. The ruling in this case found that the use of force was not

unreasonable. However, the appeals court found there could have been a better alternative considered for the safety of the hostages. The ruling added negotiations as a third possibility to consider in emergency situations as opposed to the traditional force or escape approaches (McMains & Mullins, 2015).

These events were also the impetus for the New York City Police Department (NYPD) to begin evaluating the usefulness of tactical response to hostage situations. Detective Harvey Schlossberg, who had a Ph.D. in psychology, along with Lieutenant Frank Boltz, developed principles for negotiators to consider in the management of hostage incidents (McMains & Mullins, 2015). In 1973, the NYPD was called to John and Al's Sporting Goods Store for a robbery in progress. On arrival, the robbers were trapped in the store with hostages and began firing at police. Two police officers and one robber were injured and one police officer was killed in an exchange of gunfire. The NYPD contained the scene and began negotiations. Communication was established and small demands, such as for food and cigarettes, were met contingent on the release of hostages. Even with episodic gunfire from the hostage-takers, the NYPD held their gunfire and continued negotiations. Ultimately, the remaining hostages were able to escape and the hostage-takers conceded. The success of this approach was brought to the Federal Bureau of Investigation (FBI) by the NYPD and a national training program at the FBI Academy in Quantico was established (McMains & Mullins, 2015).

As a result of these events, the USA initiated a "negotiate first" policy (Grubb, 2010) in 1975 when the US Court of Appeals overturned their ruling in Downs v. USA to declare that before resorting to the use of force, one must "exhaust all reasonable non-violent options" (Birge, 2002, p. 102). This shifted from negotiation being a third option for law enforcement to effectively being the first considered option in emergency situations. Various crisis management teams and trainings began to develop around the country for law enforcement under different names, such as Crisis Negotiation Team (CNT), Crisis Response Team (CRT), Crisis Intervention Team (CIT),

and Hostage Rescue Team (HRT), all with the intention of ending critical incidents using verbal strategies (Augustin & Fagan, 2011). According to Fagan (2003), "in contrast to tactical teams, which regularly create and utilize assault strategies/techniques to end critical incidents, negotiation teams create and use verbal strategies to attain the same goals" (p. 169).

The Attica Prison Riot and The Munich Massacre are reminiscent of the first generation of crisis intervention where the focus was on terrorism, hijackings, and politically motivated international events (Hatcher et al., 1998). As such, hostages were perceived to be primarily utilized for secondary or instrumental gain. Typologies of hostage-takers developed for the time mirrored this focus and included the emotionally disturbed, the trapped criminal, the prisoner revolt, or the politically motivated (Grubb, 2010).

A dramatic shift took place in the 1980s into what is now called the second generation of crisis negotiations where the focus turned to barricaded subjects. Here, the language shifted from "hostage" negotiation to "crisis" negotiation (Grubb, 2010) as a result of the increase in hostage and barricaded subjects (Botting, Lanceley, & Noesner, 1995). At this time, the Federal Bureau of Investigation's Crisis Management Unit (CMU) also formed the Critical Incident Negotiation Team (CINT) (Botting et al., 1995) with the influence of Schlossberg and Boltz emphasizing the management of these situations being seen as the hostage-taker in crisis. Schlossberg and Boltz developed three principles to emphasize the crisis nature of these incidents: (1) contain and negotiate with the hostage-taker, (2) understand the hostage-takers' motivation and personality, and (3) slow the incident down as time is in your favor (McMains & Mullins, 2015). Due to this shift, further training became necessary to increase the negotiation teams understanding of what "crisis" situations were, as well as identifying specific techniques to implement during these crisis negotiations (Hatcher et al., 1998). In addition to these efforts by NYPD, the first Critical Incident Team (CIT) training was developed in Memphis in 1988 which placed mandatory training requirements

on the team members who handled these crisis situations (Augustin & Fagan, 2011).

Today, we remain in the second generation of crisis negotiations where the psychology of a hostage-taker or barricaded subject becomes a key focus, as is the psychology and training of the negotiation team. As stated above, the goal of these specialized teams (HRT, CNT, CRT, or CIT) is to resolve critical incidents peacefully and without lethal force using a verbal arsenal that includes techniques such as active listening, which will be discussed later in more detail.

## "Crisis" v. "Hostage" Negotiations

The terms "crisis" and "hostage" negotiations are often used interchangeably in the literature. However, there are fundamental differences between these incidents that are important to identify.

### Hostage Situations

Hostages are best defined by their purpose during an incident. The purpose of a hostage, as discussed in the first wave of negotiations, is to secure a substantive demand, also known as an *instrumental gain*. A substantive demand is what the perpetrator wants to achieve through a third party and believes there is no other way than taking a hostage to do so. These incidents can be deliberate and occur after careful planning, or they can randomly occur as a frantic measure to ensure the perpetrators safety during the commission of a crime (Knutson, 1980). Examples of substantive demands include extreme environmental activists seeking policy change, a cultural subgroup bringing attention to a perceived plight, and a bank-robbery gone wrong where the robber seeks to escape. Therefore, a true hostage negotiation requires attention to the substantive demand as the value of the hostage is measured only in how far they can manipulate a third party toward meeting their demand. In a hostage negotiation, the perpetrator typically does not have the intent to kill the hostage, although they may be prepared

to do so (Lanceley, 2003). Knutson (1980), in an interview with airplane hijackers, had one reluctant hijacker explain:

> What my intention was, was to take 'em to Vietnam, where they could have seen for themselves what was happening to that country and I figured that the Vietnamese would have showed them around, you know, different hospitals and places bombed and stuff like that … later the passengers will return to the United States and they will tell what they've seen … that way the most publicity could be made against the war. (p. 122)

While this depicts how someone could utilize hostages to promote a cause without escalating to violence, some hostage-takers have violence built into their plan. In an interview with a deliberate hijacker, Knutson (1980) shed light on this difference:

> Oh, no; it's not revenge. That's a part of the plan. If I don't make it, I'm gonna kill him. If I don't make it, I will kill him … I still have to go back to the thing that I have a plan; right? And a—a part of my plan is killin' him if it messes up. You—you have to have control. If I've got—if I've got six hostages and uh-and uh- and one of 'em is causin' dissension in the group, to sacrifice that one will draw the others into line. (p. 124)

## Crisis Situations

The simplest and most succinct definition of a crisis is "any situation in which a person's ability to cope is exceeded" (Lanceley, 2003 p. 15). Crisis situations are highly emotionally charged situations. Barricaded crisis situations are defined as captive-taking for the irrational means of harming the captive, such as in domestic violence cases. This is in contrast to a barricaded hostage situation where the captive has been taken for some instrumental gain (Booth et al., 2010). In 1988, it was estimated that 52% of all hostage incidents involved a mentally disturbed individual (Fuselier, 1988). In 2004, that estimate remained similar with 50% of hostage perpetrators or subjects being mentally ill. This is consistent with more expressive motivations of captive-takers or interpersonal retribution rather than the previously identified motives of escape, garnering support for a particular cause, or influence

change. (Feldmann, 2004). In these captive taking events, it is more likely that the hostage is really a "victim in the making" (Lanceley, 2003). A victim differs from a hostage in that the victim is being held for expressive reasons rather than instrumental reasons in a hostage situation. This victim is likely either the "reason" why the perpetrator is in crisis or perceived to be contributing to the "reason" the perpetrator is in crisis. Consequently, the primary goal of these situations is to hurt, humiliate, receive retribution from, or kill the victim (Lanceley, 2003). In contrast, the primary goal of hostage-taking incident is instrumental gains such as bringing attention to a cause or political change.

Approximately 90% of captive-taking incidents in the USA are highly emotionally charged and involve captives who were actually "victims-to-be" (Browning, 2011). This trend has been identified using the FBI database, known as HoBaS, that tracks national Hostage and Barricaded Subject cases. It is also not uncommon that during a crisis situation, the subjects themselves are the potential victim as they barricade themselves with the intention of dying by suicide. While demands may be made during these situations (such as for food, water, or cigarettes), these are not the primary motivations for the incident. Crisis situations are often precipitated by a loss of some kind such as a job or relationship. Gist and Perry (1985) concluded that while negotiators were trained in hostage bargaining techniques, they were largely called out for domestic, barricaded, or suicidal incidents. Given the high emotionality of these situations, time is the most important factor in negotiation. Time allows for the development of rapport, for fatigue to set in, for intelligence to be gathered, for a rescue plan to be developed, and—most importantly—time helps decrease emotional reactivity to a situation in order to achieve emotional equilibrium (Sen, 1989). Due to the influence of the second wave of negotiations during the 1980s, the shift toward trying to understand the perpetrators' motives, and exhausting all nonlethal means before going tactical, led to negotiators being better prepared to handle the predominately barricaded crisis situations that were encountering.

## Crisis Negotiations Today

Today, negotiators are called to intervene with barricaded/suicidal incidents, to issuance of high-risk warrants, or to workplace/school violence events (McMains & Mullins, 2015). However, nearly 90% of "callouts" are to non-hostage emotional victims (Webster, 2003). Most departments have a Crisis Response Team (CRT) that is a highly specialized group of officers with advanced training in crisis intervention and negotiation strategies. They are called upon when a crisis situation has developed and they must intervene. Typically, it is the first responding officer who initially deals with a crisis situation. Therefore, Crisis Intervention Training (CIT) has become a recommended component of all law enforcement training. Developed in Memphis in 1988, CIT is a collaboration between community mental health resources and law enforcement. The training provides law enforcement with information regarding mental illness and local systems of care in an effort to decrease arrests where care can be provided (Teller, Munetz, Gil, & Ritter, 2006). CIT along with intensive advanced curricula and monthly trainings (discussed later in more detail) have become the norm for many departments across the country for, not only specialized negotiation teams, but all law enforcement personnel in an effort to meet the needs of those in crisis.

## Why Crisis Negotiation Training?

*The nature of a crisis is such that it overrides an individual's normal psychological and biological coping mechanisms.—(Noesner & Webster, 1997a, p. 4)*

It is crucial to recognize that although "going tactical" (i.e., immediate SWAT team response) was the status quo for some time, this strategy can have dangerous and lethal consequences. From 1990 to 1993, it was estimated that 240 police officers were feloniously killed and an additional 26,000 were injured due to assault by perpetrators (Greenstone, 1998). It is important to consider that a tactical response endangers the

perpetrator as well as the hostages, bystanders, and most importantly, the law enforcement officers who are placing themselves in harm's way. Tactical interventions do not need to be removed from consideration; however, crisis negotiations can be an effective intervention strategy that minimizes such risks. Indeed, using HoBaS data, Van Hasselt, Flood, et al. (2005) provided case illustrations in the context of domestic violence where only one out of the five required a tactical resolution, due to not being able to establish communication. It is important to note that in all five cases, the subjects had a deadly weapon and four had prior histories of domestic violence. Booth et al. (2010) also used HoBaS data to identify domestic violence captive-taking incidents. They found that, of the 56 cases they examined, most were unplanned and occurred in a private residence. In addition, only 14 of these cases required a tactical entry. Domestic violence incidents are not the only interpersonal retribution style captive-taking events that have been studied. Booth, Vecchi, Finney, Van Hasselt, and Romano (2009) also used HoBaS data to evaluate workplace captive-taking incidents. They identified 15 cases and noted that 60% of these were planned (unlike the domestic violence incidents), but that most cases resolved peacefully with negotiations.

## Negotiator Training

Gahr (1992) contended that the primary role of a negotiator is to save lives. To do so, a negotiator's job involves considerable listening, some talking, and small interjections that help the hostage-taker realize that you are there to resolve the situation safely. In addition, negotiators need to be aware when they arrive on-scene of a critical incident that "the subject is already in the midst of considerable internal turmoil" (Noesner & Webster, 1997b, p.14). Therefore, specific training for these situations is critical due to the decidedly different nature of the job of a negotiator compared to that of the first responding police officer.

Carlson and the Copp Organization Inc., United States of America (1977) attempted to create a Standard Operating Procedure (SOP) for crisis

interventions for law enforcement. This SOP sought to have common questions faced by negotiators answered prior to engagement in a negotiation to reduce the burden of those decisions being made during negotiations. Common questions included: the department's policy on swapping hostages, providing the subject with a weapon or a vehicle, leaving the scene, combining forces with other local law enforcement departments, liaison with utility companies, use of lethal force, how to prevent overreaction, and utilization of third party intermediaries (TPIs). TPIs are predominately non-law enforcement personnel who are utilized during a crisis negotiation due to some preestablished relationship with the person in crisis (Lanceley, 2003). Another early form of training suggested that negotiators should take objective personality tests, such as the Minnesota Multiphasic Personality Inventory, to promote better self-awareness. Such training encouraged the negotiator to take the time to understand their own feelings and biases in order to effectively manage transference, countertransference, Stockholm syndrome, circadian rhythm stress, and various personality types (Baruth, 1988).

## Basic Negotiator Training

The first formalized curriculum developed by Shea (1988) was referred to as tactical communication training and was in response to the notion that "the tough cop of today is outdated and ineffective" (Shea, 1988, p. 380). The 40-h curriculum combined role-plays and lectures on various topics, including verbal and nonverbal communication, listening skills, proxemics, sexual and cultural differences, calming techniques, assessment of attitudes, "sizing up" the situation, and strategies for dealing with the emotional person (Shea, 1988). Fuselier (1986) addressed the early issues negotiators faced from their supervisors at the time, the negotiators emphasized the following points: our options should be from least to most intrusive, "deadlines are hardly kept by bad guys so please don't give us one," third party intermediaries are untrustworthy, do not exchange

hostages, we can still help in tactical mode, and most importantly, time is our ally!

## First Responder On-Scene Training

One of the most dangerous times of any crisis situation is the first 15–45 min (Dolan & Fuselier, 1989). During this interval, the first responding officer has the burden of containing, isolating, and controlling the scene (Biggs, 1987). Assembling the crisis response and tactical teams takes time. Therefore, it is incumbent on the first responder to initiate contact and evaluate the situation. The goal of the first responder on-scene is to gather as much intelligence as possible while assessing for any immediate threats. First responder on-scene actions, which are targeted in training, include: (1) recording all communications with the subject in detail, (2) allowing the subject to speak, (3) restraining from giving orders that could escalate the situation, (4) minimizing past events leading to the event, (5) avoiding making any offers, (6) minimizing emphasis on victims, (7) conveying honest and sincere concern, (8) clarifying the situation for the subject, (9) "softening," but not dismissing demands and requests, (10) avoiding deadlines, (11) avoiding problem-solving, (12) not allowing outsiders (e.g., family members) to negotiate face-to-face, (13) helping plan the surrender if the subject so desires, and (14) assessing suicide risk (Dolan & Fuselier, 1989; Mullins, 2003). Asking about suicidality is warranted as a person will often interpret the question concretely. For example, Lanceley (2003) described how a negotiator asked if a subject planned on hurting himself to which the subject replied "no," yet was found to have died by suicide using a gas when a tactical entry was made. The subject left a note stating he had not lied to the negotiator as the gas did not hurt him. On another case, a negotiator asked the subject if she was thinking about suicide, she replied that she was not. However, as time progressed, the negotiator noticed that the subject was slurring her words and indicated she had taken a large quantity of drugs. The subject informed the negotiator she was not thinking about suicide; she was doing it.

## Negotiation Team Trainings

The "second wave" of crisis negotiations team trainings refined the organizational structure of teams, and increased the utilization of role-play scenarios with immediate feedback from team members (Gentz, 1988). The training curriculum emphasized the "oneness" of a negotiation team. The curriculum included basic, intermediate, and advanced training and sought to develop and maintain rapport between team members in order to maximize the teams' efficiency and effectiveness. Illustrative is the FBI's National Crisis Negotiation Course in Quantico composed of 11 modules that involve 80 h of training with the following modules: active listening skills, equipment training, policy and administrative issues training, team duties and role training, penal code training applicable to hostage negotiations, community resources training, practical exercise, negative stress survival training, case illustrations and reviews, and realistic role plays in a variety of settings and different types of subjects. In addition, the curriculum calls for communication training and for the team to maintain training on a regular basis (Greenstone, 1995a).

## Active Listening Skills and Rapport

Active listening skills are a critical focus of crisis negotiation training. Use of these skills is the key to establishing rapport and determining the "hook." The "hook" is the event which led to the subject to be in the situation he/she is in today that required a CRT callout (Divasto, 1996). These skills are important in all phases of crisis intervention: de-escalation of emotions, developing rapport, gathering information, and problem solving. Active listening skills include: effective pauses, emotional labeling, "I" messages, minimal encouragers, mirroring, paraphrasing, summarizing, and open-ended questions. Effective pauses are used to elongate silences that emphasize an important point or for a negotiator to have time to compose themselves. Emotional labeling is identifying the emotion the subject is experiencing and reflecting that emotion back to them. This involves interpretation of how the subject is feeling based on their message content and tone. "I" messages are to be used sparingly but can be

employed to express discomfort. Minimal encouragers remind the subject the negotiator is listening. Mirroring is used to reinforce that you are listening by repeating the last few words the subject said. Paraphrasing is a more active form of mirroring where the negotiator puts what the subject says into their own words to indicate they are listening but also can be used to verify what was said. Summarizing is a combination of paraphrasing and emotional labeling to combine content and emotion. Finally, open-ended questions are questions that cannot be answered with a "yes" or "no" but require the subject to actively answer questions and promote further conversation (Sommers-Flanagan & Sommers-Flanagan, 2012; Van Hasselt, Flood, et al., 2005; Van Hasselt et al., 2006).

A basic ethical principle of crisis negotiations is to avoid deception and demonstrate respect for the subject. Rapport is critical in a crisis negotiation. Without rapport, there is little likelihood of a successful resolution. Using deception is a form of disrespecting the subject which can be easily detected (Burke, 1995).

## Advanced Negotiator Training

Advanced negotiation training focuses on the development of personal approaches (i.e., a personal style of implementing crisis intervention and negotiation strategies), role-playing, physical crisis, specialized procedures, environmental impacts, religion as a factor, and critical incident debriefing (Greenstone, 1994). When a subject resists the negotiation and appears resistant to the process, this can be one of the more difficult aspects of negotiating. William Ury's five-step model for "getting past no" (Mullins, 2002, p. 64) is an advanced communication technique that can be utilized during these incidents. The first step is not reacting. Utilizing active pauses and slowing down the pace allows a negotiator to minimize their own emotions that can be elicited by such a difficult subject. The second step is to ally with the hostage taker making the two of you partners in a collaborative process. Active listening plays a big role at this point and both/and

choices are optimally used at this point instead of either/or. The third step is to reframe, but not reject, demands. Ignore stonewalling and deadlines by focusing on problem-solving as a "we" instead of a 'they'. The fourth step is to make it easier for the hostage taker to say yes than no by collaborating on alternatives and why they are better than the current solution. Tactics, such as "foot-in-the-door," can be beneficial here by allowing the hostage taker to say yes to small things before asking them to say yes to bigger things. The final step is to reinforce the alternative solution you both came up with by not issuing demands and allowing the hostage taker to save face (Mullins, 2002). The negotiator is trained to remember that "getting past no" is "bring[ing] the hostage taker to his senses, not his knees" (Mullins, 2002, p. 71).

## Key Points in Crisis Negotiations

According to Greenstone (2007), while all these errors may not be specific to crisis negotiations, the ramifications of error can include violence and death:

1. It is important to take the time to understand the intelligence gathered before entering into a negotiation.
2. Regardless of the day you were having, you must show genuine interest and concern for the situation or a meaningful connection with the subject will not be possible.
3. Understand that a negotiation is a dynamic process so keeping in mind the strengths and weaknesses of yourself and the subject and be prepared to roll with some ups and downs.
4. Identify the perspective of the subject by understanding their view of the situation along with motives and agenda.
5. Time is your best friend, so do not give in to time pressure.
6. Find the "hook" that led up to this moment; the crisis happened for a reason, so find out what that reason is.
7. Convey that the negotiation is a true collaboration and that walking away from the nego-

tiation with the subjects' needs being met as much as possible is the goal.
8. If relationship dynamics are at play, make sure you understand what types of relationships are between what people and realize that not all relationships need to endure.
9. Remember you have an entire team to support you in the negotiation, do not forget about them.
10. PRACTICE!

## Crisis Negotiation Models

The four stages of a crisis not specific to criminal justice negotiations are considered precrisis, crisis, negotiation, and resolution (McMains & Mullins, 2015). Since these stages are not specified for law enforcement responses to crisis situations, various models and approaches—some more comprehensive than others—have attempted to better define and explain the dynamic nature of the crisis negotiation process. One such approach is a causal one which defines a situation by the motives and unique characteristics of the situation. This strategy looks at instrumental (meaning for a purpose or gain) v. expressive (emotional and irrational) motivations as a guide (Schlossberg, 1979). A second approach emphasized relational limits within a negotiation. The limits were affiliation and interdependence and the way in which the negotiator and subject were moving with regard to those limits. Affiliation is the degree to which the two accepted one another; interdependence is the degree to which the two impose an obligation on the other. The interaction of these limits is manifested in the dynamic of the negotiation ranging from moving away from each other (low affiliation and low acceptance), to moving against each other (low affiliation, high interdependence), to moving with the other (high affiliation, low interdependence), and moving toward each other (high affiliation, high interdependence). The latter two are more conducive to a peaceful resolution (Donohue & Roberto, 1993).

Business-type approaches to crisis negotiations attempt to find mutually beneficial out-

comes. Finally, while atheoretical approaches rely on a list of rules, rapport building, and active listening techniques to influence behavior change that may not be expressed by the subject, transtheoretical approaches require the subject to be concerned with their behavior, convinced to change their behavior, plan to change their behavior, and then follow-through with that plan (Kelln & McMurtry, 2007).

## Behavioral Change Stairway Model (BCSM)

Developed by Vecchi, Van Hasselt, and Romano (2005), the BCSM recognizes the four stages of crisis mentioned above: precrisis, crisis, negotiation, and resolution where the goal during crisis is "restoring the ability of a person to cope through the re-establishment of baseline functioning …" (p. 542). The model utilizes a staircase to symbolize behavior change of the subject being something that has to be worked toward by implementing various techniques across the duration of the negotiation where each stage is sequential and cumulative (Browning, 2011). The first and most important level of the model is active listening which is continued throughout the negotiation. From active listening, empathy can be achieved. Empathy is defined as an implied identification with, and understanding of, another's situation, feelings, and motives" (Mehrabian & Epstein, 1972); and from empathy, rapport is established. Rapport is defined as an increased trust and mutual affinity (Vecchi et al., 2005). At this point, negotiators employ face-saving justification or minimizations that set the stage for the perpetrator to be allowed to end the crisis. Once rapport is built, it would be intuitive to move to problem solving. However, the model emphasizes that before moving to the influence stage, the negotiator must make certain they have dealt with the emotional state and de-escalated the subject, established an open line of communication, and identified a precipitating event or "hook." Once these have been established, the negotiation progresses to the influence stage where the negotiator and subject collaborate in

the problem-solving process until a resolution is reached and the behavioral change stage is attained (Vecchi et al., 2005). While the model is not empirically validated, it is taught as a real-world approach to demonstrate that over time, the natural progression should be toward behavior change, and that set-backs at any level require a negotiator to rely on the skills of the previous levels to "regain footing."

## Structural Tactical Engagement Process (STEP)

Developed by Kelln and McMurtry (2007), this model is presented as a flexible framework for not only understanding, but influencing barricaded subjects. The model utilizes four stages to describe the crisis negotiation process: precontemplation, contemplation, preparation, and action. The model is built upon this four-stage crisis negotiation process and has four major assumptions that guide negotiations. Similar to a business-like approach, the first assumption is a that peaceful surrender is a common goal for all parties. The second assumption is that subjects can be at different levels of readiness, and the negotiation needs to cater to subject's level of readiness to change. The third assumption is that the negotiator has to collaborate with, not command, the subject in order to move them through the levels of readiness. The fourth assumption is that the subject must progress through these stages voluntarily to successfully reach a peaceful surrender (Kelln & McMurtry, 2007). The ultimate benefit of this model derives from understanding that a subjects' willingness to change can dramatically impact the negotiation process. Therefore, determining where the subject is in the process can help steer the negotiation toward a successful resolution.

## Four-Phase Model (FPM)

Madrigal, Bowman, and McClain (2009) attempted to combine and enhance the previous strategies into four phases: establishing contact,

building rapport, influencing, and surrender (Madrigal, 2010). The model's phases are expected to occur in order and at particular intervals such that identifying the phase of the negotiation will better inform negotiators which tactics to employ. The model utilizes the Communication Rating Scale (CCRS) developed by McClain, Callaghan, Madrigal, Unwin, and Castoreno (2006) to identify these phases along with the goals and guidelines for negotiators during each phase. The first phase of establishing contact is meant to initiate negotiations with the perpetrator by using superficial and safe statements such as impersonal inquiries ("How's the weather?") and fill talk (discussing sports). The second phase of building rapport is meant to build a relationship with the perpetrator utilizing empathy, personal inquiry, and praise among other tactics. Influencing is meant to utilize the personal relationship that was developed in the previous stage to make suggestions and reframe the situation by minimizing the negative outcomes of surrender. The final phase provides the perpetrator with instructions for the surrender process to ensure their safety (Madrigal, 2010). While this model is meant to address the gaps in the previous models, attempts to validate it found support only for the first three phases with a sample of five, incomplete, real-world crisis negotiation audiotapes (Madrigal, 2010).

Although there is no consensus regarding the heuristic value of any of the aforementioned models, they are meant to serve a function for negotiators. That function is to act as a guide during negotiations so that a negotiation team can identify the stage of the negotiation process they are currently in. Identification of a particular stage or phase is ideally accompanied by use of specific types of verbal negotiation tactics in order to move the negotiation toward a peaceful resolution. Models alone do not ensure a peaceful resolution; however, in combination with understanding the characteristics of all participants involved (i.e., negotiator, perpetrator, and hostage/victim), there is an increased propensity for such success.

## Negotiator Characteristics

*Recognition of negotiation as a technique for changing emotional states and relationships gave rise to the realization that the mental and emotional condition of the hostage taker is not the only factor of concern …—Bracey (1980), p. 110*

It was originally believed that any law enforcement officer could be trained to become a crisis negotiator. Given that the first responder on-scene is likely to have to initiate the negotiation process, it seemed that any officer could be trained to demonstrate they were listening and taking a perpetrator seriously while not attempting to problem solve (Mullins, 2003). However, the typical duties of a road patrol officer are quite different than that of a negotiator since the job of the former is to take control of situations and quickly problem-solve for a solution so they can get to the next call. Consequently, identification of and screening for, particular personality characteristics and qualities believed to be essential for competent crisis negotiators has been the focus of increased attention. For example, Getty and Elam (1988) attempted to utilize objective personality measures (e.g., Minnesota Multiphasic Personality Inventory and California Psychological Inventory) to distinguish between negotiators and their law enforcement peers. They found scales that were able to discriminate significantly on both objective measures used and concluded from these data that key characteristics for negotiators were: (1) verbal fluency, (2) a positive self-image, and (3) increased reasoning ability and sensitivity toward others. This list was expanded by Vakili, Gonzalez, Allen, and Westwell (2006) who found the following characteristics of successful crisis negotiators: more socially withdrawn, reliable and dependable, increased baseline of arousal and awareness, confidence and poise, resourcefulness and efficiency, dutiful sense of morality, more reserved, increased ability to control their anger and aggression, increased ability to work as part of a team, strong emphasis on cooperation, and disapproval of nonconforming behavior.

## Perpetrator Characteristics

Research in crisis negotiations has emphasized the determination of characteristics of barricaded subjects and captive-takers. Just prior to the second wave of crisis negotiations, it was believed perpetrators fell into one of four categories: a criminal who had been caught, a criminal attempting to escape, a person suffering from mental illness, or a terrorist (Carlson et al., 1977). Welch (1984), on the other hand, expanded the number of categories into which a perpetrator could fall: crusader, criminal, crazy, suicidal, vengeance seeker, disturbed, cornered perpetrator, aggrieved inmate, felonious extortionist, social protestor, ideological zealot, terrorist extremist, leader, opportunistic, and idealist. It was believed these groups had vastly different characteristics. Further identifying the type of perpetrator would lead to the appropriate negotiation strategy.

## Deliberate v. Reluctant Hostage Takers

There has been discussion in the field as to whether there was a true distinction between a deliberate or reluctant hostage situation (as defined earlier). Knutson (1980) stated that negotiators should disregard the "grossly psychologically impaired captors [due to their] numerical insignificance" (p. 118). This study found a significant difference between reluctant and deliberate hostage takers and that the former appeared to be the most prominent of the two. Bahn (1980) agreed and added that the distinction between a deliberate and reluctant hostage-taker appeared to be the degree to which they were willing to use violence toward hostages. While reluctant hostage-takers appeared to employ hostages as either an afterthought or to convert them to followers of their cause (Knutson, 1980), deliberate hostage-takers appeared to use hostages as a forethought for tactical advantage (e.g., bargaining power with law enforcement) and often initiated a brutal act upon them to make their threat more credible to both hostages and authorities (Bahn, 1980).

## Mentally Ill Perpetrators

While Knutson (1980) dismissed the grossly psychologically impaired individual in these situations, encountering mentally ill barricaded subjects and captive-takers has received increased investigative attention. For example, Fuselier (1981) identified four mentally disturbed hostage-taker types: paranoid, depressed, antisocial personality disordered, and inadequate personality disordered. This classification system was an attempt to minimize perpetrator categories in order to provide real-world applications for negotiators. This categorization prompted research into the specific groupings.

## Paranoid Types

Paranoid types are considered the most difficult due to their distrust of law enforcement. It is recommended to avoid deception and deceptive tactics (i.e., lying about having a family member there) more so than with other hostage-taker groups and to maintain a straight-forward attitude while remaining calm (Miller, 2007). In addition, negotiators are encouraged to accept their statements as true and to not try to argue the validity of their statements. Negotiators are taught to emphasize the collaborative nature of problem-solving with paranoid types since any idea brought up by the negotiator could be seen as a ploy (Fuselier, 1981) and to work toward solving concrete problems (Miller, 2007).

## Depressed Types

Depressed types are believed to be at higher risk for suicide; therefore, negotiators are encouraged to provide support and recognize that they are likely have slow cognitive processing (Fuselier, 1981). Consequently, time is essential with these individuals as is the need for support from the negotiator. Negotiators should adopt a stance of nurturance through active listening and address suicidality directly (i.e., ask about it) (Miller, 2007).

## Antisocial Personality Types

Antisocial personality disorder is believed to be diagnosable in 40% of all criminals with this group committing approximately 80–90% of all

crimes (Lanceley, 1981). They are believed to be so self-absorbed that they disregard the impact of their behavior on others. As a result, negotiators should avoid utilizing family members as TPI's even more than with other personality types, and avoid discussing interpersonal relationships during negotiations (Lanceley, 1981). Antisocial personality disordered individuals also are less fearful, but seek constant stimulation which is often sought through contact with negotiators (Fuselier, 1981). They are believed to be incapable of building genuine rapport, which requires that the negotiator appeal to their self-interest by providing face-saving solutions (Miller, 2007).

### Inadequate Personality Types

Inadequate personality types are perhaps the most frequently encountered of hostage takers due to their poor problem solving abilities, pervasive immaturity, and history of being "beaten by life" (Strentz, 1983). This group requires understanding and uncritical acceptance (Fuselier, 1981), and will often start with high demands, but be willing to settle for much less. Negotiators are cautioned that while inadequate personality types may be less likely to die by suicide than the depressed types, they are more likely to die by suicide than those with antisocial personality disorder.

### Borderline Personality Types

Although not initially discussed in the mentally ill offender typology, Borum and Strentz (1992) discussed this group as living in a "near constant state of crisis" (p. 7), and, therefore, are a frequent subject for negotiators. Persons with borderline features are characterized by instability in all domains of functioning such as self-image, interpersonal relations, mood, and identity. Due to this instability, they may present as the most difficult group with which to negotiate as the "real need" is often entangled with their strong need for attention and support. This can be used to the negotiators advantage by building rapport and demonstrating concern (Miller, 2007). In these situations, negotiators are encouraged to provide structure and stability while remaining empathic (Borum & Strentz, 1992).

### Psychotic Types

Negotiators faced with a psychotic individual, whether it be drug-induced or a schizophrenia-spectrum disorder, need to utilize constructive ambivalence (i.e., not admitting to believe or disbelieve in the individual's delusion) in order to not challenge or support the individual's delusions and remaining present focused (Miller, 2007).

### Manic Types

Negotiators will negotiate with a manic individual, whether it be drug-induced or a manic episode in someone suffering with Bipolar disorder. It is important for negotiators to maintain a slow, even, and steady tone and to adopt a patient position. While not guaranteed by the nature of manic episodes, it is possible for an individual to "crash"—meaning to come down from their manic episode to a more slowed rate of speech—which would require the negotiator to adopt a new stance (Miller, 2007).

### Narcissistic Personality Types

These individuals have an inflated sense of self that is protecting a frail identity. Negotiators should imply equal status in order to initiate communication with such an individual (Miller, 2007). Further, they need to balance their inflated sense of self with their frail identity.

### Histrionic Personality Types

These individuals are often highly dramatic and sexualized. Negotiators should recognize that facts may not be so easy to obtain from these individuals as they change their story often to please the negotiator. This desire to be attractive to the negotiator warrants that the latter empathically gratify their need for attention while examining resolutions for keeping them safe (Miller, 2007).

### Militias and Extremists

In the late 1990s, a social trend was made public by the bombing of the Federal building in Oklahoma City. That trend was the militia movement where individuals maintained strong Christian and Constitutional beliefs to justify their

antigovernment actions (Duffy & Brantley, 1997). These groups are believed to be mostly concerned with first, second, and fourteenth amendment rights; it is critical for negotiators to initiate and maintain a nonconfrontational dialogue in order to better asses their threat (Strentz, 1995).

## High-Risk Negotiation Factors

While it would be ideal to provide negotiators with a formula for determining the risk of loss of life during a critical incident, no such formula exists. However, research has ascertained high-risk factors that increase the overall risk for loss of life during a negotiation. Such factors include: a subject who has experienced multiple stressors, a subject's personal history that encourages male dominance, subject's involvement in previous incidents, lack of family or social support, forced confrontation with police, threats or harm to the victim or self, and a verbalized suicide intent and plan (Fuselier, Van Zandt, & Lanceley, 1991). Strentz (1991) identified other risk factors, which include: insistence on face-to-face negotiations, deadline set for their own death, announcement of a verbal will, history of violence, a weapon tied to their body or in the subjects' hand, insistence on a particular person to arrive on-scene, no semblance of rapport being built, hours of negotiation with no clear instrumental or expressive demands, and active substance use.

While the abovementioned characteristics are helpful in identifying risk in a crisis situation, they are not the only characteristics that may influence the volatility of the situation. Hostages or victims also have characteristics that may impact the progression and resolution of a crisis situation.

## Hostage/Victim Characteristics

The most widely researched victim or hostage characteristic is that of Stockholm syndrome, which is considered a frustrating phenomenon for law enforcement and a complex concept for researchers to study (de Fabrique, Van Hasselt, Vecchi, & Romano, 2007). The concept of transference was believed to be the primary basis of the syndrome where the negative feelings once directed toward the hostage-taker was transferred

to the authorities such that they develop positive feelings toward at their captors. In turn, positive feelings are transferred back to the hostages from their captors (Fuselier, 1999). It was once thought that this syndrome would be found in all captive-taking incidents. However, the FBI's Hostage and Barricaded Subject (HoBaS) database indicates that out of 1200 cases, 92% reported no Stockholm syndrome in victims. Two important factors were identified as needing to be present to produce the syndrome: (1) increased time of a negotiation, and (2) constant kind contact between hostage-taker and victim (Fuselier, 1999).

Giebels, Noelanders, and Vervaeke (2005) examined the psychological reactions to captivity and found that the most common experience of victims was the feeling of hopelessness. Victims of kidnappings often felt isolated and developed new routines to normalize their experiences. This study emphasized that psychological injury should be a consideration for victims and pointed out that role expectations for hostages or victims made a difference. The investigators offered that while the average person may be more willing to follow instructions and place self-preservation first, hostages with a law enforcement or military background may be less inclined to withstand doing nothing to resolve the situation. This assertion makes collecting intelligence on the hostages of equal importance as hostage/victim characteristics. Further, whether there is a single or group of hostages/victims may have an impact on the dynamic and outcome of the negotiation.

## Crisis Negotiation Team Organization and Roles

> *It's like a football team where SWAT makes up the offense, negotiators are defense, special teams are the medics and you have one head coach with a bunch of coordinators—Detective Brian Plancarté, Broward Sheriff's Office (personal communication, September 17, 2014).*

The emphasis on a team approach necessitates that a team be established prior to crisis negotiation training. In some departments, the team is

compiled by having prospective team members submit letters of intent followed by an interview. Once the selection board approves the person, and approval is granted from the higher authorities, that individual is invited to individual and team trainings (Greenstone, 1995a, 1995b). Teams can be organized with as few as three members: a primary negotiator, a coordinating negotiator or coach, and an auxiliary negotiator (Gentz, 1988). The auxiliary negotiator's role includes keeping "situation boards" (i.e., visual aids to consolidate information pertaining to the critical incident) current to organize information obtained in a crisis. This information would include names and information of the subject, hostages, and family members along with deadlines made, police actions conducted or planned, a surrender plan, topics to avoid, and important demands (Duffy, 1997).

Mullins (2003) found that most teams are composed of 6–10 team members with the largest being 20. Schlossberg (1980) emphasized the necessity of a team approach with delegated tasks so that the team can better function as a unit in critical incidents. Building an effective negotiation team is essential and relies on eight crucial steps: (1) establishing urgency and direction, (2) selecting members for their skill and potential for skill development over personality, (3) careful attention to the tone and agenda for the first meeting as a team, (4) establishing clear rules for team behavior, (5) pursuing immediately productive tasks, (6) challenging the team with new facts and goals, (7) spending time together, and (8) utilizing the power of positive feedback, recognition, and reward (McMains & Mullins, 2015). FBI guidelines suggest five specific roles be filled in negotiation teams: negotiator supervisor, primary negotiator, secondary negotiator (coach), intelligence officer, and mental health consultant (McMains & Mullins, 2015).

Regini et al. (2002) at the FBI's Crisis Negotiation Unit offered suggestions for selecting crisis team members and leaders: First, team members should be strong investigators who are able to employ a nonconfrontational approach. They should be able to remain calm (or at least appear to be calm) during stressful events. Given the variety of trainings necessary to become effective negotiators, time dedication and commitment to the team is essential for trainings and actual team call-outs. For team leader, senior investigators or supervisors are best to first consider in this position. Specifically, they must: (1) be well trained in current negotiation procedures, (2) have the ability to interact with other specialized teams, and (3) be able to assess for risk. Equal rank to that of the other specialized team commanders is preferred. It is recommended that crisis response team leaders have a familiarity with psychological concepts. Considerable time dedicated and commitment to trainings and call-outs is required.

One of the issues negotiators face in a negotiation is pressure from commanders to resolve issues quickly. In a survey addressing issues negotiators wished their supervisors knew, they emphasized the importance of time and expressed frustration with command setting deadlines for resolutions (since deadlines were rarely kept by perpetrators). In addition, negotiators wanted to be recognized for their ability to assist in tactical considerations in order to decrease the lethality to all parties involved (Fuselier, 1986). Working with command can be a particularly difficult issue to overcome, especially when command decisions can emanate from multiple specialized groups. Negotiators can facilitate open lines of communication with command by emphasizing a "solution-focused" rather than "solution-forced" problem-solving strategy (Webster, 2003) and identifying when indicators of progress are evident in the negotiation. These indicators are: (1) no additional injury to self or others, (2) reduction in threats or in intensity of threats, (3) lowered emotions, (4) increased rationality, (5) passed deadlines, (6) willingness to bargain, (7) lowering demands, (8) releasing hostages, (9) establishing rapport, (10) positive statements toward self or others, and (11) questions regarding consequences and surrender (Noesner, 1999). As training within the negotiation team for incidents is essential, so is training and preplanning lines of communication across responders (Walton, 1988). As contended by Van Zandt (1991), "Negotiators do not command; com-

manders do not negotiate" (p. 18) which underscores the dual-role conflict from taking on both responsibilities. Negotiators need to act as the spokesperson to the perpetrator on behalf of the team; the commander needs to see the full picture of the crisis situation and its ramifications for other specialized teams (Van Zandt, 1991).

## Role of the Psychologist in Crisis Negotiation

FBI guidelines encourage a mental health consultant be part of the crisis response team. This is because approximately 50–52% of all hostage incidents involve a mentally disturbed individual (Feldmann 2004; Fuselier, 1988). Psychologists on negotiation teams were initially considered as: (1) a resource to develop negotiation strategies, (2) a consultant to train and brief on mental health issues and active listening skills, (3) an intelligence gatherer, (4) a post-trauma counselor, or (5) a resource evaluator (Powitzky, 1979). Powitzky (1979) argued that "the majority of practicing psychologists, especially those who work outside the criminal justice system, would not be very helpful (and some harmful) in a hostage-taking situation" (p. 30). Slatkin (2000) identified possible mental health consultant roles being a trainer, coach, observer, monitor, intelligence gatherer, post-incident debriefer, and researcher. The role of a psychologist or mental health professional is believed to be a "circumscribed but critical role" (p. 66). Research since has supported the use of mental health consultants and psychologists as part of crisis response teams. Butler, Leitenberg, and Fuselier (1993) examined the outcomes based on mental health professional roles and found that agencies utilizing a mental health professional as a consult reported significantly more surrenders and fewer tactical responses. Hammer, Van Zandt, and Rogan (1994) found that a majority of mental health professionals were used either as a post-incident resource, an on-site consult, or in trainings for the crisis response team. Hatcher et al. (1998) discussed the practicality of mental health professionals being presented with an opportunity

to consult with law enforcement. They emphasize that unlike major departments like NYPD and LAPD (among others), most police departments would not openly offer training and consultation experiences to psychologists. Instead, police departments may ask a psychologist to consult on a single-case basis. This case-by-case-based invitation to consult may evolve over time into an invitation to consult with the crisis negotiation team if three factors are present: mutual acceptance of the psychologist and the crisis negotiation team roles and functions, professional credibility on behalf of the psychologist as evidenced by timely distribution of critical information, and the psychologists' ability to function in the field (i.e., on a call-out). While other accounts of roles of psychologists may be speculative, these authors identified four actual roles psychologists were utilized for in crisis negotiations (in descending order of frequency): (1) consultant/advisor on psychological issues and behavior change (2) integrated team member such that they may have interchangeable roles on the team, (3) primary negotiator, and (4) primary controller as an "overall operational commander" (p. 468).

## Coordinating with Other Specialized Teams

Crisis response teams are composed of negotiators and Special Weapons and Tactics (SWAT) personnel that are jointly commanded by the triad of command. This triad consists of an on-scene incident, tactical, and negotiations commander (McMains & Mullins, 2015). While the incident commander is the ultimate decision maker, he or she is advised directly by both the tactical and negotiations commanders to avoid "group-think" (which is a tendency for members of a group to conform their thinking to other members of the group rather than establish independent thought) syndrome (Birge, 2002). While the three-part action criteria should be conducted prior to implementing a tactical response, SWAT and negotiators often disagree on the answer to each of the three action criteria questions.

The three parts are (1) "Is action necessary?" (2)"Is it risk effective?" and (3) "Is it acceptable?" and SWAT often answers "yes" to all three questions with negotiators more often responding "no" (Noesner, 1999). The order of acceptable responses should progress from least to most—from the containment, isolation, and attempt to negotiate, to containing and demanding surrender, to utilizing chemical agents and snipers, to implementing a tactical breach with SWAT (Fuselier, 1981). This is not only an effort to preserve the life of the perpetrator and potential victims, but also to preserve safety of the SWAT team. As mentioned earlier, Greenstone (1998) conducted a study from 1990 to 1993 and found that 240 police officers were feloniously killed annually with over 26,000 injured as a result of assault. SWAT officers are at an increased risk for injury or death. Yet tactical teams continue to favor physical deescalation tactics while negotiators emphasize emotional deescalation tactics. This makes multidisciplinary team trainings essential to foster positive relationships between the teams prior to call-outs (Vecchi et al., 2002).

## Effectiveness of Trained Negotiators

*[T]here is a modicum of data regarding the utility of specific negotiation approaches themselves … [however] investigative efforts to prescriptively apply the most efficacious negotiation strategies based on empirically grounded decision-making have yet to be conducted.—Vecchi et al. (2003), p. 549*

Although there is limited empirical research on crisis negotiations as a whole, the extant literature clearly indicates that specialized training of law enforcement officers leads to better outcomes of crisis negotiations. Bristow and the Copp Organization Inc., United States of America (1977) examined variables that potentially decreased the likelihood of hostages being injured during a 5-year period. Results showed that the only factor that diminished the likelihood of harm to the hostages was the use of a trained negotiator. Greenstone (1995a, 1995b) demonstrated that even when the perceived critical component of "a will to live" is

missing in a crisis situation, trained negotiators were able to instill practical and realistic hope with nonlethal resolutions. Van Hasselt, Flood, et al. (2005) examined five domestic violence case examples to ascertain the effectiveness of trained negotiators. Four of the five cases were negotiated with the fifth being nonnegotiable due to the negotiators not being able to establish communication with the perpetrator.

Actual negotiations are generally not available to researchers due to various political and legal reasons (i.e., liability). Consequently, researchers have utilized simulated negotiations (similar to role-plays utilized in training curricula) to (1) study phenomena specific to crisis negotiations, and (2) to determine the efficacy of crisis negotiation training (Beune, Giebels, & Sanders, 2009; Beune, Giebels, Adair, Fennis, & Van Der Zee, 2011; Giebels & Taylor, 2009; Taylor & Donald, 2004; Taylor & Donald, 2007). Beune et al. (2009) examined the influence of disparate verbal tactics and utilized a simulation of theft suspects to assess cultural differences of being kind (employing active listening skills and offering rewards) v. rational persuasion (utilizing problem solving) in a suspect's willingness to give a statement, quality of relationship, and admission of guilt. After 52 simulated police interviews, only active listening was positively related to willingness to give a statement and quality of relationship regardless of culture.

Beune, Giebels, Adair, Fennis, and Van Der Zee (2011) explored the notion of "strategic sequences," which are defined as "set of behaviors that are aggregated into a sequential manifestation of components of influencing behavior" (p. 935), specifically relating them to important cultural considerations. They found that employing rational (firm statements with concessions) compared to relational (firm yet friendly) messages changed the impact of the negotiation when taking into account whether the perpetrator comes from a high context culture (where more emphasis is placed on an indirect and context-oriented style of communication) or low context culture (where a more direct and content-oriented style of communication is used).

## Training Validation

Two empirical studies evaluated the validity and efficacy of training programs. In the first investigation, Van Hasselt, Baker, et al. (2005) examined the validity of a role play procedure used in the FBI's negotiation training curriculum tool for developing negotiation skills. The study recruited two groups of agents from the FBI: expert negotiators who were trained members of the Crisis Negotiation Team and nonexpert agents with no formal crisis negotiation training. Active listening skill use was measured to determine if they could discriminate the expert negotiators from the nonexpert agents participating in the identical role-play scenarios. Results showed that expert negotiators had significantly higher use of active listening skills overall, and specifically differed from their nonexpert agent peers by their greater utilization of paraphrasing, emotional labeling, and reflection/mirroring. This study demonstrated not only the validity of the role play test as an assessment tool for training crisis negotiators but as a vehicle to discriminate trained negotiators from untrained law enforcement peers.

In a second study, Van Hasselt et al. (2006) explored the effectiveness of the FBI's National Crisis Negotiation Course (NCNC) which is used to train crisis negotiators across the USA. The study incorporated the role play test previously validated by Van Hasselt, Baker, et al. (2005) to determine pre–post training differences on levels of active listening skills demonstrated in role-play scenarios. Results indicated that after the course, there was a significant increase in three of four active listening skills measured (paraphrasing, emotional labeling, reflection/mirroring) and a significant decrease in problem-solving from pretest to posttest.

While these studies do not definitively conclude that trained negotiators will always find a peaceful resolution to a crisis situation, they do provide evidence for the value of a trained negotiator, and active listening skills as a whole, in crisis negotiations. Since active listening skills are often taught at the basic, intermediate, and advanced level of negotiator trainings, it is important to further add to the literature by exploring the effects of specific active listening skills on perpetrator response style within a negotiation.

## Summary and Conclusions

This chapter aims to cover a wide range of material pertaining to crisis negotiations from its inception to present-day theories, curricula, and applications. It provides a historical overview to orient the reader to the catalysts for how and why crisis (hostage) negotiation as a field was developed and delineated crisis negotiations among various forms of negotiation that law enforcement may encounter. The chapter also provides the reader with the current state of the field and explored techniques crisis negotiators were previously trained in and how these trainings have evolved over time (e.g., emphasis on active listening skills). In addition, this chapter discusses the four phases of a crisis as well as two prominent training models that have been developed (1) Structural Tactical Engagement Process and (2) Behavioral Change Stairway Model. The chapter also explores personal attributes of barricaded subjects or hostage-takers, negotiators, and hostages that are necessary to consider when negotiating a crisis situation, as well as the organization of a crisis negotiation team, what roles mental health professionals can (and should not) take on, and dynamics with other first responder teams. Finally, the chapter integrates the limited but growing empirical research regarding the effectiveness of crisis negotiations and crisis intervention training for law enforcement.

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# Risk Assessment: Law, Theory, and Implementation

David L. Shapiro and Angela Noe

## Introduction

There are many areas of the law in which predictions of the potential for violence play a significant role. For example, United States v. Salerno (1986) discussed the issue of the potential for violence with regard to decisions made during bail hearings. Further, decisions regarding probation/parole often entail a concern for whether the person will pose a risk to others. Since the landmark case of Lessard v. Schmidt (1972), the process of civil commitment has been based on the concept of "danger to self or others" by reason of mental illness. Of the 32 states in which the death penalty is permitted, 26 of them allow information related to an individual's potential for future violence to be presented to help the jury to determine the appropriate sentence: death or life in prison. As we shall see, the research in this area is limited in terms of the ability to predict violent behavior; yet the question—"Doctor, will this man be dangerous?"—is frequently asked of clinicians who serve as expert witnesses. Despite the paucity of research to back up the validity of such forecasts, many have no compunction about rendering their opinions.

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## The Legal Evolution of Risk Assessment

The prediction of violent behavior has carried great weight, largely due to the assumption that clinicians possess the skillful aptitude to make such determinations with great accuracy. In fact, the early terminology involved the "prediction of dangerousness," a dichotomous kind of opinion hallmarked by a rudimentary view of human behavior: A person was either dangerous or not dangerous; there was no middle ground. This untested belief persisted for many years.

During the 1960s, the case of Baxstrom v. Herold (1966) triggered a series of events that would lead to a number of groundbreaking discoveries. In this case, the Court had ordered 967 patients residing in a forensic psychiatric hospital to be released or transferred to a civil mental hospital. Many objected, voicing predictions about future acting out based on impressions from previous clinical observations. Despite the ominous assurances, only a fraction of the Baxstrom cohort (around 20%) was reconvicted after release, mostly for nonviolent offenses (Steadman & Cocozza, 1974). Although the reoffenders tended to be younger and had more serious criminal records, there was little else of contrast (Steadman, 1974). This brought a poorly recognized fact to light: *The belief that clinicians could predict future violent behavior had little*

*scientific basis* (Cocozza & Steadman, 1976). Regardless, the judicial system moved on as if nothing was amiss.

In the case of *Jurek v. Texas* (1976), the Supreme Court reviewed the aggravating factors required for a capital case in the State of Texas (namely, the one about an offender constituting an ongoing threat). The appellants argued that this factor was *unconstitutionally vague and therefore lacked merit.* The Supreme Court rejected the argument, stating that future risk is no different from other predictions of behavior addressed in the criminal justice system (e.g., bail, parole). The Court acknowledged that the predictions may be difficult, but not impossible.

A subsequent case, *Estelle v. Smith* (1981), contested the methods used by the examining psychiatrist, Doctor James Grigson. After only a brief interview, Doctor Grigson concluded that Smith was a sociopath (because he did not show any remorse) and, since sociopaths commit criminal acts, Smith would be violent in the future. As distressing as this inadequate examination sounds, the US Supreme Court only addresses matters in which there may be a violation of the Constitution. Since Doctor Grigson did not make clear his role, leading Smith to believe that the interview was part of a Competency evaluation rather than an evaluation for future dangerousness (which could render him eligible for the death penalty), the Court found the misrepresentation to be a violation of Smith's Fifth (protection against self-incrimination) and Sixth (right to legal representation at a critical stage of the proceeding) Amendment rights. The case was reversed and remanded, with Smith sentenced to life in prison instead of death.

The case of *Barefoot v. Estelle* (1983) was also fundamental. In this case, the same Doctor Grigson (along with a Doctor Hollbrook) testified for the state. Not surprisingly, their responses to hypothetical questions conveyed an opinion that Barefoot would be violent. In fact, Doctor Grigson went so far as to say that he was *100% certain* Barefoot would kill again, even though he never examined him. Barefoot's attorneys argued that clinicians are not competent to predict future violence and the use of psychiatric testimony at a Sentencing Hearing constituted a violation of Barefoot's rights under the 8th (cruel and unusual punishment) and 14th (equal protection under the law) Amendments.

The Court rejected all of the petitioner's arguments in Barefoot's case, affirming the conviction and the sentence. In its opinion, the Court addressed many issues. Briefly, the Court cited the case of *Jurek v. Texas* as affirming the fact that dangerousness is a legitimate topic to be considered in capital cases, and that any methodological deficiencies could be "*cured by rigorous cross-examination*." Concerning the certainty with which Doctor Grigson made his predictions, the Court noted that such a declaration is a matter of weight to be given to the testimony, not to its admissibility. The use of hypothetical questioning was also deemed to be an acceptable part of the judicial process. In sum, the Court stated that calling for the elimination of psychiatric testimony would be akin to asking them to *disinvent the wheel*.

## Predicting Sexual Reoffending

The prediction of sexual recidivism is far from a new practice, as it can be traced back to the "Sexual Psychopath Laws" of the 1950s. Simply put, these laws allowed individuals who had difficulty controlling their sexual impulses to be committed to a psychiatric facility indefinitely. This *alternative* to incarceration was based on a belief that treatment could help the offenders gain insight into their deviant predilections and, as a result, they would stop engaging in the behavior. Given what is known know about the difficulties of treating sexual offenders, it is not surprising that the development of insight approach proved to be an efficacious failure. Along with this, civil liberties advocates argued that the laws were unconstitutional because, unlike fixed prison terms, these offenders could be hospitalized for the rest of their lives. The policies disappeared sometime in the 1980s, but it did not take long for them to make a comeback. The modern statutes, which emerged in the early 1990s, are referred to as "Sexually Violent Predator" (SVP) laws. These laws allow for

commitment *after* an offender has served his prison term. This legislation brought several issues to the attention of the US Supreme Court.

The case of Kansas v. Hendricks (1997), for example, involved an admitted pedophile, named Leroy Hendricks, who was challenging his commitment to an SVP treatment center. Hendricks argued that the commitment equated to double jeopardy as he had already served about 15 years in prison for the sexual offense. Since double jeopardy represents a violation of the US Constitution, the case was reviewed by the US Supreme Court. The Court ended up rejecting his argument, noting that the initial detention was meant to be punishment and the second detention was for treatment. The Court also recognized the lack of effective treatment, but clarified that it does not equal a total lack of treatment options.

In a subsequent case, Young v. Weston (1995), the Court reviewed the claims of a committed offender named Andre Young. Young had been sent to an SVP treatment center in the state of Washington and asserted that his commitment was technically double jeopardy since he was not receiving treatment. The Supreme Court did not deal with this quandary, but instead remanded it to the state of Washington for consideration of the adequacy of their treatment programs. Lastly, the Court came close to dealing with a perplexing issue in the case of Kansas v. Crane (2002): *What was the link between a mental illness and the inability to control sexual impulses?* The Court agreed that the involuntary commitment could only meet constitutional muster if the inability to control sexual impulses was linked to the mental illness and, if no such link existed, it would be more appropriately handled by the criminal justice system.

## Questionable Legislation and Ethical Conundrums

The statutory definitions of what constitutes a sexually violent predator are not without complication. While the precise wording differs slightly from state to state, the core requirement is that the individual has to suffer from "*a mental abnormality or personality disorder which predisposes*

*him to predatory acts of sexual violence*." This rather circular definition poses some very real problems for clinicians. First, according to the various mental health texts, there is no such thing as a mental abnormality. This term, which is so broad that it is virtually meaningless, does not actually identify any clear causal relation with sexually violent behavior. Further, there is no existing personality disorder that lists predatory acts of violence in its diagnostic criteria. This legal definition is essentially a legislative creation, a fiction that has nothing to do with what clinicians deal with in their practices. Thus, evaluators are stuck adopting the language spelled out in the statute, regardless of its lack of clinical meaning.

The laws dealing with involuntary commitment across the country also speak of the fact that there must be an imminent danger to self or others, which is usually defined as a recent overt act. Since this population has been incarcerated for a number of years, a recent overt act would not be present (with the exception of an exceedingly predatory prisoner). This has led some to describe sexual offenders as qualifying for a "*special kind of involuntary commitment*," in that the commitment can be based exclusively on the ability to "*predict future sexual offending*," which is not very accurate. Also of interest is the fact that these offenders are being committed for treatment when there is no efficacious treatment available. Many programs do what they think would be right, but there is little-to-no evidence to back up these theoretically based interventions (especially with long-term risk). As an example, one state contracted with a provider who purported to use a treatment called "rational self-counseling." There is no literature that describes rational self-counseling as an effective treatment for sexually violent individuals. One might just assume that "the price was right" and the state granted the contract to this group.

The way in which these laws are written also breed ethical dilemmas. As an example, the laws allow for the completion of an evaluation based solely on a review of records if the individual refuses to cooperate. Per the Code of Ethics delineated by the American Psychological

Association, one reaches a diagnosis, conclusion, or recommendation only when there is sufficient data to substantiate it, and, except in very rare circumstances, must include a personal interview. If the interview cannot be completed, then the limited validity must be reflected in the results. In the experience of one of the authors (D.S.), it is rare for an examiner to actually qualify his/her findings in this way. This also renders the aforementioned mental abnormality questionable as it is not possible to find sufficient data for a diagnosis that does not exist.

## The MacArthur Studies on Risk Assessment

As of the late 1970s, there remained only five studies gauging the veracity of the predictive practice. Hoping to address this deficit, Monahan (1981) audited the process and noticed an unsettling pattern: In our predictions of future violent behavior, we were essentially *wrong two out of three times*. These findings were based on results obtained over several years with institutional populations that had committed violence in the past (and had high base rates for it) and who were diagnosed as mentally ill (Monahan, 1981, p. 47). Monahan concluded that it may be better to utilize purely actuarial assessments rather than unaided clinical assessments.

Monahan further noted in his work that the best predictors of violent behavior among the mentally ill were, in fact, the same predictive factors found in populations that were not mentally ill. Of these factors, he concluded that the strongest was a history of past violence. The poorest predictors were those valued by clinicians (e.g., diagnosis). He was also critical of those who ignored base rates in their research. To clarify, a base rate is the percentage that identifies the occurrence of a particular behavior in a certain group. For instance, the base rate of violent behavior in the general population is about 2%. That is, 2 out of 100 individuals—on average—will act in a violent manner. Ultimately, the assessment of the prevalence of violent behavior among mentally ill patients is only meaningful

when compared to the base rate found in the general population. Despite Monahan's skepticism, as well as his statements that actuarial methods were superior to clinical judgment, he nevertheless became the principal investigator in the MacArthur Risk Assessment Studies. These studies, which inevitably grew into a rather comprehensive research-based assessment model, would became one of the bases for an approach called "Structured Professional Judgment" (SPJ).

In time, Monahan discovered three factors that seemed to be limiting the previous research. The first was *a constricted range of risk factors*. In other words, clinicians would try to predict future violent behavior after looking at a few demographic variables, or an impression from a clinical interview, or the results from one psychological test (making broad—yet shallow—statements). The second issue was *weak criterion measures*. Monahan found that most of the studies were using "rearrest" as the selection variable, which underestimates the true rate of violent behavior as such acts often do not lead to an arrest (like in cases of domestic violence) or, conversely, an alternative intervention may be used (e.g., hospitalization). Monahan found this to be the case with the patient population they were monitoring (i.e., males with a history of previous violence). Finally, the research was based on findings from a single site, meaning generalizations were made that ignored the possible effects of differences in background.

To rectify these limitations, the MacArthur research made a conscious decision to improve the study's reliability and validity by: (1) Studying a large, diverse array of risk factors; (2) Expanding the criterion variable of rearrest to also include patient's self-report and input from a large variety of collateral sources (e.g., family interviews and hospital records); (3) Including both male and female participants; and (4) Collecting data from multiple sites. It did not take long for the researchers to realize that greater focus needed be placed on risk factors that were relatively robust predictors compared to the previous, albeit limited, findings. Among these were: Psychopathy, difficulties regulating anger, violent thoughts, diagnosis, abuse as a child, delusions and/or hallucinations, a history of pre-

vious violence, and a variety of contextual variables. These efforts ultimately led to the replacement of the commonly used presumptuous terminology "prediction of dangerousness" with the term "risk assessment."

Violent behavior was conceptualized as the product of a complex array of interactions across four domains: Clinical, Dispositional (Demographic), Historical, and Contextual. This revealed a number of factors to consider using a "Classification Tree" model (Monahan, 2002). In other words, the exact questions asked during the assessment were based on the respondent's answer to the question that preceded it rather than a fixed list of questions.

With respect to the Clinical domain, the various diagnostic groupings were explored, including the impact of certain kinds of mental illnesses. A diagnosis of major mental disorder (e.g., depression, bipolar disorder, schizophrenia) reportedly had a weaker relationship with violence than a Personality Disorder diagnosis or a diagnosis of adjustment disorder (Monahan, 2013). Moreover, schizophrenia had a lower association with violence than either of the mood disorders (Monahan, 2013). The mere presence of auditory command hallucinations was found to be insufficient to prompt violent behavior; however, hallucinations involving violent content that persisted over time did appear to have the potential to be influential (Monahan, 2013). Delusions (in general) were not found to have an association with violence unless they involved a perception of harm. Also of note, nondelusional suspiciousness had an association with violence (Monahan, 2013). Finally, a co-occurring substance use diagnosis was found to be quite influential in violent behavior (Monahan, 2002).

The Dispositional domain included various demographic factors, like gender and age, as well as personality variables (e.g., anger and impulsivity) and neurological features (Monahan, 2013). Those who reported the endorsement of violent thoughts at intake proved to be at higher risk for future violence (Monahan, 2002), as did those who obtained higher scores on the Novacco Anger Scale

(1983) (Monahan, 2013). There were no gender differences observed in terms of prevalence rates of violence, but discrepancies were noted for the circumstances in which the behavior occurred. With male participants, for example, there were greater rates of medication noncompliance amongst those who acted violently, and violence was often preceded by the consumption of alcohol and/or illicit substances. For females, on the other hand, violence was more likely to occur in the home and be targeted at family members (Monahan, 2013).

The Historical domain addressed significant past events. Employment instability, for example, appeared to have a relationship with violence, as did childhood physical abuse (but not sexual abuse). Witnessing caregivers engage in maladaptive behavior (e.g., excessive substance use) also appeared to be associated with violence (Monahan, 2013). Contextual variables, on the other hand, addressed things, like support system, living arrangements, and access to weaponry. Indeed, Meloy (2000) noted the role that "popular cultural influences" play in behavior and urged clinicians to examine a person's propensity to use weapons (primarily firearms) carefully. He built on his suggestion by developing the Weapons History Assessment Model (WHAM), which assessed for the person's attraction to firearms, skill using the weapon, selection of reading materials, and the nature of his/her affective response to firearms.

Ultimately, the best predictors of violent behavior among the mentally ill appeared to be the same as that found in other populations. Further, the structures suggested by the MacArthur research conveyed probabilities concerning specific types of violence within a specific context. This approach, which is in stark contrast with the earlier "predictions of dangerousness," offers a far more precise picture of an individual's potential, in that it qualifies the circumstances under which violent behavior is more likely to occur. This was a major departure from the antiquated, "Yes, s/he will be dangerous" or "No, s/he will not be dangerous" once relied upon so heavily.

## The Awakening of a New Era

So far, we have discussed the mistaken impression that all mentally ill individuals will be violent and the fallacy that a violent person must be mentally ill. There is, however, a paradox in the data that suggests some slightly increased risk with certain symptoms.

Up until the mid-1980s, the general consensus within the mental health community was that there was no statistically significant correlation between mental illness and violent behavior. Basically, violence among the mentally ill had about the same base rate as violence in the general population when demographic and other historical factors were controlled for (around 2%). In an influential article published in the American Psychologist, Monahan (1992) spoke about a conclusion he did not want to reach: After looking at data from several different perspectives (not accounting for the sample of patients or their social/demographic factors), he discovered a relationship between mental illness and violence. That is, when mental illness was defined as psychosis or a major mood disorder, 13% of the sample reported acting violently; however, there were some complex methodological issues. Positive symptoms (e.g., delusions, hallucinations) had a positive correlation with violence, while negative symptoms (e.g., disorganized speech, emotional blunting) had a negative correlation. Quite often, these symptoms co-occur within the same person and it is very difficult to make accurate distinctions between which group is experiencing only positive symptoms and which is experiencing only negative symptoms. Ultimately, Monahan made it a point to emphasize that severe mental illness is rare, and any relationship between it and violence is moderate, at best. Truly, acting out is possible in all mentally ill individuals, although not equally so because behavior does not occur in a vacuum. Overwhelming stress and/or a recent loss tend to precede violent behavior.

Research continues to break from the "one size fits all" mentality, with recent studies exploring subtypes of individuals with a mental illness who act out. For example, Van Dongen, Buck, and Van Marle (2015) evaluated individuals with psychosis to determine factors more common in those who have offended. Three offender groups were identified: early starters (ES) (first arrest before mental illness onset), late starters (LS) (mental illness onset before first arrest); and late first offenders (LFO) (first arrest after symptom onset and older than age 35). The three offender groups shared four features that made them unique from the group of nonoffenders with a mental illness (i.e., lower education level, emotional neglect during childhood, and higher rates of both grandiose delusions and persecutory delusions). Higher rates of early onset substance use (before age 15) were found among the ES and LS, whereas the LFO endorsed the highest rates of persecutory delusions.

In a similar study, Simpson, Grimbos, Chan, and Penney (2015) found few differences among the ES and LS with regard to age, education, gender, or marital status. ES were more likely to have features of a Cluster B Personality Disorder (e.g., impulsivity and emotion dysregulation), psychopathic features, history of substance abuse, and instability in relationships and employment. Late-late starters (first arrest more than 10 years after mental illness onset and older than age 37) were more likely to be married and to have a spouse as the victim in the index offense. Truly, the "mad vs. bad" distinction is limited as the two are not mutually exclusive.

The exponential rise in neuroimaging studies has revealed some of the "hidden" risk factors to be amongst the most important. Bannon, Salis, and O'Leary (2015) synthesized the research and identified three ways structural abnormalities can play a role in violent behavior. The first is a history of head injuries, which (as the review outlines) is a factor commonly endorsed by perpetrators of intimate partner violence. Essentially, a history of TBI can predispose an individual to bouts of irritability, impulsivity, and a tendency to overreact to minor frustrations (particularly if the TBI interferes with communication). The second involves lesions in the brain. More precisely, lesions in the prefrontal and subcortical areas are noted, as well as lesions in the temporal and limbic areas. The interaction of

these areas is important for emotional regulation. Finally, observable (e.g., differences in size) and functional (e.g., differences in blood-flow) abnormalities have been revealed in imaging studies. The three domains are unique but, in the end, they can all lead to the same violent outcome (Bannon et al., 2015).

Indeed, there are some who argue that abnormalities in the brain may be at the root of predatory violence (e.g., Raine, 2013). Less efficient prefrontal lobe functioning—often seen in psychopaths—can result in impaired judgment and difficulty appreciating the long-term effects of decisions (Yang, Raine, Colletti, Toga, & Narr, 2009). Li, Wang, Zhang, Zhou, and Guo (2015) compared the brain activity of male schizophrenic patients and found that, amongst those with a history of violence, there was evidence of dysfunction in the prefrontal area of the brain. In addition, the size of the amygdala has been found to be smaller in individuals categorized as psychopaths relative to non-psychopaths (Yang, Raine, Narr, Colletti, & Toga, 2009). This region is thought to play a role in how our bodies process threat and is linked with feelings of fear. This may indicate that psychopaths experience less fear and autonomic arousal than do others. Taken together, predatory violence may be endorsed more in those who do not consider the consequences of their choices, are not worried about social judgment, and are primarily interested in instant gratification.

## Assessment Instruments

We now have a vast amount of data regarding risk assessment with a variety of measures at our disposal. Indeed, Neal and Grisso (2014) found 286 different tools in use while conducting an international survey of the methods used by forensic examiners. We also have groups of professionals writing articles proclaiming the "superiority" of their instruments; however, Singh, Grann, and Fazel (2013) found that studies authored by an instrument's designers reported validity rates almost twice as high as those found by independent researchers (which they identified as a result

of "authorship bias"). What are we to do with the dizzying array of options?

With the exception of unaided clinical judgment—which most do not utilize in modern practice—the assortment of approaches are fairly equal in their ability to assess violent behavior. A conceptual controversy that should be mentioned, though, has to do with the placement of the individual into a risk category or group. Just because a person is assigned to a certain category does not mean s/he will fit the entire pattern. Thus, when we obtain a predictive value for someone in a group, the actual predictive statement may be even higher or lower. For instance, if an individual scores in the moderate range on a measure but has a mental illness, is noncompliant with medication, has a history of self-medicating with illicit substances, presents with features of psychopathy and paranoia, is unemployed, and has a history of TBI, the risk would more likely be high than moderate. Thus, modifications to the overall likelihood should be considered. This is what the adjusted actuarial approach is about, but those advocating for the purely actuarial model contend that any adjustment is a throwback to clinical judgment. Those utilizing adjusted actuarial style argue that they use the actuarial model as an anchoring point, and then refine that anchoring point with idiographic data.

Let us now look at some of the more common assessment instruments, both actuarial and SPJ. We will start with the Psychopathy Checklist—Revised (PCL-R), a SPJ style instrument, as many of the actuarial tools incorporate a PCL-R score as one of their most robust items.

## Psychopathy Checklist Revised (PCL-R)

The PCL-R can be thought of as an update and combination of the 16 personality traits outlined by Cleckley (1976), who spoke of the psychopath as presenting "a mask of sanity." Hare updated this concept based on his own clinical experience and sought to build upon the existing knowledge by developing a system to assess for the construct. The resultant checklist (Hare, 1980) has

been revised twice since its introduction (Hare, 1991, 2003). The revisions were regarded by Hare as conservative and expanded the standardization data to encompass a greater variety of offenders (e.g., females, substance abusers, and young offenders; Hare, 2003). Interestingly, the PCL-R was not devised with an explicit focus on violence risk; yet it is identified as a variable on many risk assessment instruments.

The PCL-R contains 20 items, each of which gauges for an essential behavior pattern or trait inherent in the prototypical psychopath. These 20 items are divided into two groups, called Factors, and each Factor is subdivided into two groups, called Facets (Hare, 2003). Factor One addresses the interpersonal (Facet One) and affective (Facet Two) deficits. According to Hare (2003), the items that comprise Facet One are: Glibness and superficial charm; Grandiose sense of self-worth; Pathological lying; and Conning, manipulative interpersonal style. Facet Two includes: Lack of remorse or guilt; Shallow affect; Callousness, lack of empathy; and Failure to accept responsibility for one's actions. Factor Two, on the other hand, combines the antisocial behavior patterns (Facet Three) and chronic unstable lifestyle (Facet Four) characteristic of the prototypical psychopath (Hare, 2003). For Facet Three, the items are: Need for stimulation and proneness to boredom; Parasitic lifestyle; Lack of realistic long-term goals; Impulsivity; and Irresponsibility. Finally, Facet Four covers: Poor behavioral controls; Early behavioral problems; Juvenile delinquency; Revocation of Conditional Release; and Criminal versatility. There are two more items that are not listed in the Factors but have been identified as part of the construct: Promiscuous sexual behavior and Many short-term marital relationships (Hare, 2003).

The item concerning *Need for stimulation and proneness for boredom* is a characteristic that must not be undervalued as it tends to be one of the aspects that most often brings these individuals to the attention of law enforcement (Hare & Logan, 2015). It may be possible that this is one of the features that separates the more chronic criminals from the offenders who are able to avoid detection for extended periods of time (regarded by some as "*long-term evaders*").

The PCL-R is scored according to a three-point coding system, which identifies the degree to which a trait fits with the available information. If there is no evidence to suggest a trait is present, a zero is coded. If there is some indication, a one is coded. If the evidence suggests a trait is definitely present, a two is coded. A semistructured interview allows the evaluator to observe whether or not the offender endorses any of the traits (e.g., superficial charm, grandiosity, pathological lying). Each rating is based on the typical functioning over the course of the respondent's life (Hare, 2003). Hare (2003) underscores the need to use a variety of collateral information and cautions against relying exclusively on self-report.

The highest possible score for the PCL-R is 40, with 30 assigned as the cutoff score by Hare (2003) for a description of psychopathy. The final scores reflect a score for Factor One, a score for Factor Two, and an overall total score. The distribution of scores across the Facets can also be analyzed in terms of different profiles (Hare & Logan, 2015). Only those appropriately trained should administer this measure (Hare, 2003) as it requires a high degree of sensitivity to ensure that the coding is in line with that used during the tool's standardization.

There are two alternative versions, namely the *Psychopathy Checklist: Screening Version* (*PCL:SV*) (Hart, Cox, & Hare, 1995) and the *Psychopathy Checklist: Youth Version* (PCL:YV) (Forth, Kosson, & Hare, 2003). The PCL:SV is a 12-item scale based on a select subset of PCL-R items, many of which are Factor One variables. The Youth Version is helpful for the rapidly growing research concerning juvenile psychopaths and is distinguished from the PCL-R by its rephrasing of certain items to make the variables more applicable to juveniles.

### Actuarial Assessment Instruments

Actuarial measures employ a strict algorithmic formula that requires the evaluator to look for a concrete pattern of static, but also demographic, factors that have been "weighted." That is, the number of points assigned to an item is based on the purported strength of its relationship with violent behavior. Actuarial measures do not take

into account rare risk or protective factors, nor can they tell us which specific individuals in a category will be the ones that act out.

## Violence Risk Appraisal Guide (VRAG)

The VRAG is a 12-item tool designed to measure risk of future violent recidivism in adult males (Quinsey, Harris, Rice, & Cormier, 2006). The early stages of the VRAG's creation began with a review of the literature to determine measurable risk factors correlated with violence, after which statistical analyses were performed using samples of forensic psychiatric patients to determine the factors most predictive of violence (Harris, Rice, & Quinsey, 1993). This was a postdictive—rather than predictive—approach comparing factors that differentiated one group from another. The 12 items are: Separation from parents before age 16; Elementary school maladjustment; History of alcohol problems; Marital status; Criminal history for nonviolent offenses; Failure on prior conditional release; Age at index offense; Victim injury; Any female victim; Personality disorder (positively weighted); Schizophrenia (negatively weighted); and Psychopathy (Quinsey et al., 2006). Total scores are converted into a category of risk and correspond to 7- and 10-year probability estimates (Quinsey et al., 2006).

## Sex Offender Risk Appraisal Guide (SORAG)

Initially developed as a tool for determining risk of sexual recidivism (Quinsey, Rice, & Harris, 1995), the SORAG has been expanded to measure for the risk of any type of violent reoffending in adult male sexual offenders. Violent recidivism refers to both sexual and nonsexual forms of violence that involve physical contact with the victim (Quinsey et al., 2006). In a way, the SORAG represents a more specialized version of the VRAG. It consists of 14 items, 10 of which were retained from the VRAG. The items for which there is no overlap include: Criminal history for violent offenses; Number of previous convictions for sexual offenses; History of sex offenses only against girls under age 14, including the index offense; and Phallometric test

results (Quinsey et al., 2006). The total score is converted into a category of risk and correspond to 7- and 10-year probability estimates (Quinsey et al., 2006).

## Domestic Violence Risk Appraisal Guide (DVRAG)

The DVRAG is a 14-item tool designed to identify the level of risk posed by male perpetrators of intimate partner violence (Hilton, Harris, Rice, Houghton, & Eke, 2008). Construction of the DVRAG was inspired by the usefulness of the VRAG for gauging the risk of future wife assault in perpetrators of IPV (Hilton, Harris, & Rice, 2001). The items include: Number of prior domestic violence incidents; Number of prior nondomestic incidents involving physical assault; Prior custodial sentences of greater than 30 days; Failure on prior Conditional Release; Threats to harm or kill at the index assault; Confinement of the partner at the index assault; Concern of victim; Number of children; Number of biological children from a previous partner; Violence against others; Substance abuse; Assault on victim while pregnant; Number of barriers to victim's support; and Score on PCL-R (Hilton, Harris, & Rice, 2010). The score and likelihood of recidivism can be used for safety planning (Hilton et al., 2010). The instrument does not provide estimates for fatal assaults, but the presence of certain factors may indicate increased reason for concern (e.g., use of firearms, relationship termination) (Hilton et al., 2010).

## Rapid Risk Assessment for Sex Offender Recidivism (RRASOR)

The RRASOR is a brief measure that approximates the level of risk posed by adult males who have already been convicted of a prior sexual offense (Hanson, 1997). It should only be used as a screening tool to place offenders into relative risk levels until a more comprehensive assessment can be performed (Hanson, 1997). There are four items, including: Prior sexual offenses; Between the ages of 18 and 25; Victim gender; and Unrelated victims (Hanson, 1997).

## Static-99

The Static-99 is a ten-item tool designed to measure the level of risk for sexual or violent recidivism posed by adult male sexual offenders already convicted of at least one sexual offense against a nonconsenting adult or child (Hanson & Thornton, 1999). The instrument looks at three areas in an offender's life. The first (Demographic) asks about an offender's age and relationship history (Harris, Phenix, Hanson, & Thornton, 2003). The second (Criminal History) asks about prior: Nonsexual violence; Sex offenses; Sentencing dates; and Convictions for non-contact sex offenses (Harris et al., 2003). The third (Victim Information) inquires about past victim selection: Unrelated victims; Stranger victims; and Male victims (Harris et al., 2003). The total score is used to determine an offender's placement into one of four risk categories, which reflects the long-term risk potential for both sexual and violent recidivism (Harris et al., 2003).

Three variations of the measure have evolved over the years. The Static-2002 (Hanson & Thornton, 2003) is unique in its inclusion of theoretically based variables thought to drive sexual offender recidivism (Phenix, Doren, Helmus, Hanson, & Thornton, 2008), whereas the Static-99R and the Static-2002R (Helmus, Thornton, Hanson, & Babchishin, 2011) take into account the effect of aging on recidivism (that is, decreases in antisocial behavior).

## Structured Professional Judgment Measures

Structured Professional Judgment (SPJ) schemes attempt to connect all of the research regarding violent/sexually violent offending into a series of distinct categories, and then use a structured format to ensure all areas are adequately reviewed. As a result, there is some leeway for clinical judgment. In essence, it is an amalgamation of the actuarial and clinical methods.

## Historical Clinical Risk Management-20 (HCR-20)

The HCR-20 is an SPJ scheme designed to guide clinicians through a comprehensive, structured assessment of violence risk, with violence defined as any actual, attempted, or threatened harm (Douglas et al., 2014). It was crafted for use with forensic psychiatric, civil psychiatric, and offender samples (Douglas et al., 2014). The HCR-20 has been revised twice, each of which retained a focus on past behavior (Historical), present behavior (Clinical), and potential future circumstances (Risk Management). The third version (V3) is unique in that many of the items are accompanied by a number of subitems.

The Historical scale looks at past problems with: Violence (as a child; as an adolescent; as an adult); Other antisocial behavior (child; adolescent; adult); Relationships (intimate; nonintimate); Employment; Substance abuse; Major mental disorder (psychotic; mood; other); Personality disorder (antisocial, psychopathic, and dissocial; other); Traumatic experiences (victimization/trauma; adverse child-rearing experiences); Violent attitudes; and Response to treatment or supervision response (Douglas et al., 2014). The Clinical scale covers recent problems with: Insight (mental disorder; violence risk; need for treatment); Violent ideation or intent; Symptoms of major mental disorder (psychotic; mood; other); Instability (affective; behavioral; cognitive); and Response to treatment or supervision (compliance; responsiveness) (Douglas et al., 2014). Finally, the Risk Management scale assesses for future problems with: Professional services and plans; Living situation; Personal support; Response to treatment or supervision (compliance; responsiveness); and Stress or coping (Douglas et al., 2014).

A supplemental manual, entitled the "Female Additional Manual" (Vogel, Robbe, Kalmthout, & Place, 2014), outlines additional risk factors to consider in female respondents. There are four extra items for the Historical section (i.e., Prostitution; Parenting difficulties; Pregnancy at young age; and Suicidality/self-harm), two for the Clinical section (i.e., Covert/manipulative behavior and Low self-esteem), and two for the Risk Management section (i.e., Problematic child care responsibility and Problematic intimate relationships) (Vogel et al., 2014).

Scoring the HCR-20 is similar to the PCL-R in that it utilizes a similar three-point system and calls for all available information. Given that the

HCR-20 was designed to establish whether or not certain important risk factors are present (like a checklist), it may be better to list the results in terms of risk and protective factors rather than a numerical summation.

### Sexual Violence Risk-20 (SVR-20)

The SVR-20 is an example of an SPJ measure designed to identify individuals at risk of committing sexual violence (Boer, Hart, Kropp, & Webster, 1997). Like the HCR-20, this instrument assists in the review of critical factors (many of which are shared by the two tools). It is scored using a three-point system akin to the PCL-R and HCR-20.

The SVR-20 addresses three areas in an offender's life. The first (Psychosocial Adjustment) covers: Sexual deviation; Victim of child abuse; Psychopathy; Major mental illness; Substance abuse; Suicidal/homicidal ideation; Relationship problems; Employment problems; Past nonsexual violent offenses; Past nonviolent offenses; and Past failure on supervision. The second (Sexual Offenses) inquires about: High density of sex offenses; Multiple sex offense types; Physical harm to the victim; Use of weapons/threats of death in sex offenses; Escalation in frequency/ severity of sex offenses; Extreme minimization/ denial of sex offenses; and Attitudes that support/ condone sex offenses. The final area (Future Plans) includes: Lacks realistic plans and Negative attitude toward intervention (Boer et al., 1997).

### Spousal Assault Risk Assessment Guide (SARA)

The SARA is an SPJ measure designed to identify the level of risk posed by perpetrators of intimate partner violence toward partners or ex-partners, children, other family members, and other possible targets (Kropp, Hart, Webster, & Eaves, 1999). The SARA can be used with both male and female perpetrators.

The SARA is composed of 20 items divided into four domains (Kropp et al., 1999). Criminal History includes prior: Assault of family members; Assault of strangers/acquaintances; and Violation of conditional release/community supervision (Kropp et al., 1999). Psychosocial Adjustment addresses: Recent relationship problems; Recent employment problems; Victim of/witness to family violence as a youth; Recent substance misuse; Recent suicidal/homicidal ideation or intent; Recent psychotic/manic symptoms; and Personality disorder with anger/ impulsivity/behavioral instability (Kropp et al., 1999). Spousal Assault History entails the items: Past physical assault; Past sexual assault/sexual jealousy; Past use of weapons/credible threats of death; Recent escalation in frequency/severity of assaults; Past violation of no contact orders; Extreme minimization/denial of spousal assault; and Attitudes that support/condone spousal assault (Kropp et al., 1999). Finally, Current/ Most Recent Offense (Index Offense) includes the items: Severe/sexual assault; Use of weapons/ credible threats of death; and Violation of no contact order (Kropp et al., 1999). The SARA uses a three-point coding system and produces two overall risk estimates: Imminent risk of violence toward the partner/ex-partner and Imminent risk of violence toward others (Kropp et al., 1999).

## Observations and Limitations

Risk assessment measures, whether actuarial in nature or SPJ-based, typically have one major element in common: They produce results that are only slightly better than chance. On top of that, it is not uncommon for studies evaluating the predictive validity of such tools to produce results that conflict with the findings of another study. Clearly, this is a complex area and within this brief overview we cannot discuss it in detail. However, a few general comments are in order.

### Research Validity vs. Field Validity

Research validity refers to how valid a measure is when applied by researchers trained in the tool's administration. Field validity has to do with the validity of the same measure when used by clinicians. Often, the research validity surpasses the field validity because researchers are more familiar with the criteria used during development.

## Sampling Error

Sampling error is a term used in statistics in reference to discrepancies between the characteristics of a sample and the population it is chosen to represent, as well as when results are generalized despite it being inappropriate to do so. When we look at the predictive ability of risk assessment instruments, sampling error frequently comes into play and occurs when different groups of sexual or violent offenders are assumed to represent all such offenders. For example, a study that utilizes a sample of rapists to determine the predictive validity of a risk assessment tool for sexual recidivism is unlikely to produce the same results as would be obtained with a sample of child molesters. This is because the risk factors that predict recidivism in rapists are often distinct from the risk factors that predict recidivism in child molesters (Hanson & Morton-Bourgon, 2005). Given that these instruments are an amalgam of risk factors, it is not surprising that they have only moderate predictive validity. Honestly, it would be wiser to construct instruments that assess offense-specific risk factors or are geared toward specific offender subtypes than continue relying on a "one size fits all" approach.

Even the kinds of predictions may vary. During a presentation at the APA-ABA conference on Violence and the Family, Becker, Doran, and Matson (2014) noted that certain risk factors may predict violence (in general), while others may predict an initial sexual offense, while others may predict sexual recidivism. Becker further notes that not all child molesters or rapists have a paraphilic disorder, nor do all who are a diagnosed with a paraphilic disorder "act out." Incest offenders often have fewer victims, and extra-familial sex offenders are more likely to have deviant sexual preferences. Noncontact offenders (e.g., voyeurs, exhibitionists, and Internet offenders) tend to show more elements of compulsivity and a larger number of victims. In short, according to Becker, sex offenders are a heterogenous group, have no distinct profile, and come from all walks of life.

## Ethnic Differences

An offender's ethnicity can also influence the outcome of studies examining an instrument's predictive validity. For instance, the Static-99 and Static-99R have been found to be less effective with Latino offenders than they are with African-Americans and Caucasians (Varela, Boccaccini, Murrie, Caperton, & Gonzalez, 2013). A frequent occurrence, as observed in court by one of the authors (D.S.), is the tendency of forensic examiners to either be oblivious to these findings or just dismissive of them. So much for sensitivity to diversity.

## Location

The country in which a study took place has also been found to be influential. For example, in a meta-analysis exploring the accuracy of measures for risk of sexual recidivism, Hanson and Morton-Bourgon (2009) determined that the effect sizes produced by the tools were strongest in the UK and rather weak in the USA. Since the majority of the assessments originated in Canada and the UK, this is not particularly surprising as the USA has a more diverse ethnic makeup. Research is needed to determine whether these differences are attributable to ethnic differences, as well as the impact of cultural beliefs.

## Group vs. Individual Data

As noted before, the actuarial approach will only point to the fact that the individual belongs to a group that has a particular likelihood of reoffending. Therefore, while there are many claims that the actuarial approach is superior to the clinical approach, this really omits the fact that the current approach to risk assessment is primarily that of structured professional judgment, not unaided clinical judgment.

## Operational Definitions of Recidivism

Another area that may interfere with reliability has to do with the definition of recidivism. Depending on the study, recidivism may be defined as a new arrest, a new charge, or a new conviction. Therefore, it stands to reason that much of the research reportedly evaluating for the same outcome is really looking at different things.

## Base Rate Issues

Monahan observed that base rate data is frequently missing in risk assessment research and, therefore, any statistics relating to the likelihood of offending cannot be truly put within context. The results of an assessment are often adjusted to reflect the number of offenders who recidivate in a given area. Such estimates may be inaccurate because aggressive offenses frequently go unreported. Overall, inaccurate base rates inevitably create complications for in terms of the accuracy of violence risk measures (Szmukler, 2001).

## Actuarial Scoring of SPJ Measures

A validity complication unique to SPJ studies has to do with the way in which the instrument was coded. A good portion of the literature regarding SPJ efficacy is comprised of studies that did not score the instrument as it was intended, basing conclusion on absolute, numerical scores. Per Hanson and Morton-Bourgon (2007), this basically results in the measure being transformed into a "conceptual actuarial measure" (p. 3). Therefore, it would be inappropriate to extend the validity reported by such studies to that which might be found if the instrument were coded as intended, as it introduces sampling error.

## Inter-rater Reliability

Although SPJ measures were not intended to be actuarially scored, the benefit of such an approach

could be improved interrater reliability as summary risk judgments are often based on informed clinical judgment. Such judgment, however, may vary from one examiner to another. Certain examiners using the SARA, for instance, may give extra weight to stalking behavior endorsed by a perpetrator of interpersonal violence, while a different examiner may not. If such is the case, different summary risk ratings may be expected.

## Treatment vs. No Prior Treatment

Another area has to do with history of treatment. An offender's history of treatment may create additional confusion. There are many studies that have used offenders with a history of treatment or are currently in treatment, while others integrate offenders with no history of treatment. Clearly, some factors may apply in one group that would not apply in another, and in other areas where there is a purported use of the so-called "dynamic variables," the nature of participation in treatment is not known, nor the treatment orientations.

## Interpretation of Risk Factors

It is not enough to look at the number of risk factors present because this will only provide part of the picture. Further, deeming a person low risk because there are minimal risk factors present and, ergo, not in need of treatment is "arguably the main problem with risk assessment" (Large, Ryan, Callaghan, Paton, & Sing, 2014, p. 2). The authors articulate that an individual who is low risk should still be provided with resources to help them cope with possible future issues. In this case, it is more about what is done with the factors present. Another area in need of more research is the interaction of risk factors. Dvoskin and Dlugacz (2014), in the APA/ABA conference on Violence and the Family, noted the misperception propagated by the media that mental illness and violence are highly correlated. In fact, only 5–10% of violent crime can be attributed to severe mental illness alone. While most mentally

ill individuals do not act violently, the presence of other risk factors (e.g., unemployment, victimization, and child abuse) could be influential. Dvoskin also notes a high correlation between those few mentally ill individuals who do act violently and suicidal ideation/behavior on their parts. He recommends doing a suicide risk assessment as part of any violence risk assessment.

## Limited Consideration of Protective Factors

External factors may be more important than internal ones (LeBel, Burnett, Maruna, & Bushway, 2008). Indeed, there is a growing body of research supporting the importance of context. Chamberlain and Wallace (2016), for example, reported that in areas with a high concentration of parolees, the rates of recidivism varied according to residential stability. So, locations with a high rate of residential instability (e.g., high turnover) had higher rates of recidivism than areas with more residential stability. The authors concluded that residential stability may allow for more social control. Farmer, Beech, and Ward (2012) noticed that having a place within a social group/network was one of the distinguishing features in their group of sexual offenders who did not recidivate. Clearly, a risk assessment is not complete unless it captures the full picture, contextual interactions and all.

## Conclusions

In this chapter, we have covered the origins of modern risk assessment, including its legal and practical evolution. We have covered the court cases that have arisen in the name of predicting risk. Modern advances in the understanding violence—including the various underpinnings driving such behavior—provides the basis for greater awareness of which factors truly matter.

In other words, risk factors and myths about violence (particularly violence among the mentally ill) are important to be aware of as they carry implications for treatment providers.

It is true that many of the early cases heard by the Court suggested a rather unresponsive attitude with regard to the concerns of mental health professionals; however, some more recent cases have emerged which seem to indicate a growing sensitivity—on the part of Court—to the findings put forth psychological research. Further, there seems to be a greater emphasis given to proper standards for risk assessments. All in all, there must be a recognition of the nuances and the value of context inherent in such assessments. Truly, *one size does not fit all*.

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# Foundations of Threat Assessment and Management

Andre Simons and J. Reid Meloy

In June of 2014 a Seattle Pacific University student tackled and pepper-sprayed an active shooter on campus who had killed one person and injured two others ("1 dead, others hurt," 2014). In April of 2015 in Washington State, a North Thurston High School teacher confronted and overpowered a 16-year-old school shooter who had fired two shots inside the high school ("Teacher Tackles Shooter," 2015). In the summer of 2015, a heavily armed gunman opened fire on a high-speed train traveling from Amsterdam to Paris before being challenged by passengers, two of whom were US soldiers ("The Men Who Averted," 2015"). These disruptions were heroic, incredibly brave, and saved countless lives. The right people were in the right place at the right time; they recognized the signs of the attack and made the decision to challenge the offender.

Violent acts such as active shootings sometimes are disrupted in this way—when vigilant

bystanders recognize an attack and bravely intercede to confront the offender. These types of heroic acts that stop catastrophic attacks, however, are relatively rare. In colleges, K-12 schools, businesses, and law enforcement agencies there are professionals who work daily to detect and prevent these horrible acts from ever occurring in the first place. These less-publicized but equally impactful disruptions are carried out by *threat assessment* and *threat management professionals*. They include law enforcement officers, mental health care providers, and other security stakeholders collaborating in a structured effort to accurately assess and then mitigate the risk of violence. As events such as targeted shootings in public areas increase in frequency and impact (Blair & Schweit, 2014)—in contrast to the 30-year general downward trend in criminal violence (Decrease in 2014, 2015)—it is important for law enforcement, mental health, and criminology professionals to understand how threat assessment and threat management can be useful tools for thwarting violence.

Threat assessment and management (TAM) is broadly defined as the set of investigative and operational techniques used by law enforcement professionals to identify, assess, and manage the risks of targeted violence and its potential perpetrators (Fein, Vossekuil, & Holden, 1995). It has also been described as the process of gathering information to understand the threat of targeted

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violence posed by a person (Meloy, Hart, & Hoffmann, 2014), and determining the level of targeted violence risk posed by an individual or group toward a specific target (Association of Threat Assessment Professionals, 2006).

TAM may be a relatively new concept for many professionals. "The primary role of law enforcement professionals in violent crime has historically been reactive, rather than preventative. Most investigators are called upon to investigate violent crimes *after* they have occurred …." (Borum, Fein, Vossekuil, & Berglund, 1999, p. 324). In contrast, the primary objective of TAM is to detect and disrupt acts of violence *before* they occur. This contradicts the outdated concept of "police paralysis," where law enforcement action only occurs in response to a violent act. This reactive posture is no longer acceptable, or even reasonable, in a world with terrorist attacks, school shootings, and other violence, where preattack behaviors are often observable. Recognizing that holistic criminal justice includes both reactive and proactive strategies for mitigating violence, this chapter will focus on the use of TAM as a method for preventing terrible acts such as active shootings, assassinations, and other targeted violence attacks.

In many ways, law enforcement officials practice some form of threat assessment each day, whether during interviews of subjects on the street or during routine traffic stops. When a subject is first contacted, the law enforcement officer evaluates verbal and nonverbal behaviors and constantly looks for any indicators of imminent violence or predatory intent. The officer may probe to assess the subject's stability, ability to comply with set boundaries, and history of violence. After determining the potential for violence, the vigilant officer or investigator takes actions to mitigate the risk of escalation and prevent an attack. In a similar manner, a TAM professional engages in a process of analyzing behavior in an effort to interrupt the trajectory toward a violent act.

Perhaps the most important concept to understand is that TAM is not a method of *predicting* future violence. No law enforcement officer, psychologist, profiler, or TAM professional can definitively ascertain if or when an individual

will commit an act of targeted violence. Rather than trying to predict future violence, TAM professionals are engaged in the deliberate and structured effort to *prevent* these acts. Prevention does not require prediction.

Some have compared TAM interventions to public health approaches, similar to how seat belts and speed limits prevent injuries without predicting who will crash a car (Miller, 2014). Perhaps no analogy better highlights this concept than the cardiologist and the patient at risk for experiencing heart failure. When meeting with a patient, no competent cardiologist would be audacious (or foolish) enough to advise the patient that he or she is guaranteed to experience a heart attack within the next several months. Such predictions would be enormously problematic and continually disproven to a degree that the cardiologist's credibility would be jeopardized. At the same time, a good doctor would never tell a sincerely concerned patient, "I can't help you until you've had a heart attack. Come back after you have one." Instead, a competent cardiologist would seek to prevent the heart failure from ever happening in the first place by assessing the patient's risk factors (e.g., diet, family history, smoking, lack of exercise, alcohol intake) along with any presenting symptoms (e.g., elevated blood pressure, elevated lipid levels in the blood, fatigue, occasional chest pains). By blending the most relevant research findings with his or her own clinical experience, the cardiologist can assess the level of risk to the patient and identify appropriate interventions. The interventions (e.g., medication, lifestyle changes, surgery) vary in their intensity, may be multipronged, may change over time, and are implemented in order to reduce the overall risk of heart failure. The doctor's priority is therefore proactive prevention, not prediction. There is little doubt patients are better served if heart failure is prevented rather than simply responded to.

The authors suggest this example elegantly demonstrates many of the core concepts involved in the successful detection and disruption of targeted violence through TAM. A professional using TAM evaluates the presenting risk factors and warning signs (or "symptoms") that indicate an individual is on a trajectory toward a violent

attack. Like the cardiologist, the TAM professional must rely upon research and experience to accurately assess the individual's risk factors and warning signs across multiple spectrums; this assessment then informs the development of interventional strategies to mitigate the potential the individual will act out violently. The interventions may vary in intensity and intrusiveness, but all are ultimately designed to reduce the risk of a violent attack. Like the good cardiologist, prevention is the primary objective. With this in mind, the authors suggest that TAM currently represents the most promising avenue for the detection and disruption of acts of targeted violence; it is an emerging cornerstone in the education of the modern law enforcement, mental health, and criminology professional.

## History of Threat Assessment and Management

The practice of TAM has evolved over time and has taken its cues from violence risk assessments conducted by psychologists and other mental health professionals (Meloy, Hart, et al., 2014). For many years, methods for assessing risk of general recidivism and violence have been utilized for determining relative risk of a specific person during the adjudicative process (Borum et al., 1999). These methods have frequently relied upon the "clinical" process (face-to-face evaluations by mental health professionals) or the "actuarial" approach (the use of statistical probabilities to predict future behaviors) (Monahan, 1981). Recognizing that subjects may present with highly individualized historical, clinical, and contextual issues (Monahan, 1996), TAM has evolved and currently relies upon "structured professional judgment," a process that utilizes clinical and/or operational expertise within a structured application or protocol (Douglas, Cox, & Webster, 1999; Grove & Meehl, 1996) which does not provide an actuarial estimate of risk.

The field of TAM also has been influenced by trends in violent behaviors, including stalking, workplace violence, school massacres, campus attacks, assassinations, and other acts of intended or targeted violence. There are several specific attacks that have shaped our understanding of predatory (i.e., instrumental, intended, targeted) violence (Meloy, 2006) and contributed to the development of TAM:

- Actress Rebecca Schaeffer was stalked by Robert John Bardo for nearly three years. On July 18, 1989, he appeared at the front door of her apartment in West Hollywood and shot her to death. Schaeffer's death helped prompt the 1990 passage of America's first anti-stalking laws in California and prompted the Los Angeles Police Department to form the Threat Management Unit (Dunn, 2014).
- Between 1970 and 1981 there were four attempted assassinations of public figures, including presidential candidate George Wallace, President Gerald Ford (on two occasions), and President Ronald Reagan. These attacks and others prompted the US Secret Service's (USSS) research on violence and protective intelligence culminating in the publishing of the landmark Exceptional Case Study Project (Fein & Vossekuil, 1999).
- In April of 1999, Columbine High School students Eric Harris and Dylan Klebold attacked their school using makeshift bombs and guns, killing 13 and injuring 21 before committing suicide ("Columbine High School," 2015).
- In April of 2007, Virginia Polytechnic Institute student Seung-Hui Cho attacked individuals within two separate buildings on campus, killing 32 and wounding 17 before killing himself ("Columbine High School," 2015).
- In December of 2012, Adam Lanza shot his way into Sandy Hook Elementary School in Newtown, Connecticut. Once inside, he killed 20 children and six adults before killing himself (Connecticut Department of Emergency Services and Public Protection, 2013).

At first these tragic incidents seem to be unconnected attacks with little in common. However, each features an offender or offenders who engaged in *targeted violence*, a methodical, predatory, and deliberate effort to carefully craft a plan of violence against a person or institution

followed by a calculated attack (Fein et al., 1995; Meloy, 1988, 2006). These offenders planned their attacks over days, months, and sometimes years. At some point in their trajectory from thought to action, each decided that violence was the best—or perhaps the only—solution to their particular grievance or perceived problem. Another shared trait between these seemingly disparate offenders is their display of preattack behaviors that gave clues as to their violent intent. Oftentimes such clues are observed by others but are not immediately recognized as indicative of an imminent attack (Fein et al., 2002).

Each of these incidents—and many other acts of stalking, assassinations, and shootings—have been scrutinized and studied by TAM professionals in an effort to learn about offenders' psychological and behavioral trajectories in the lead up to their respective attacks, often with a particular focus on identifying observable behaviors. This research has propelled the development of the field of practice of TAM as law enforcement and mental health care professionals work to refine methods for detecting and disrupting similar attacks. For instance, the attack at Columbine High School, which had been preceded by a number of school shootings throughout the USA, prompted a "general recognition of the need for school-based threat assessment" (Mohandie, 2014, p. 126) and sparked a national conversation on police tactical responses and preventative TAM strategies. Similarly, the attack at Virginia Tech spurred the Virginia Commonwealth's General Assembly to mandate in 2008 that all institutions of higher education in Virginia have threat assessment and management capability (Virginia Law, n.d.). Several review panels convened after the 2007 attack concluded that "having a threat assessment and management (TAM) process was critical for enhancing early identification and intervention with situations that posed a risk of violence or significant disruption to the campus environment" (ASME Innovative Technologies Institute, 2010; International Association of Campus Law Enforcement Administrators, 2008; National Association of Attorneys General, 2007, as cited in Deisinger, Randazzo, & Nolan, 2014, p. 107).

Since that time other states have mandated that colleges and universities have threat assessment teams accessible as a resource for detecting and disrupting targeted violence on campus (Illinois General Assembly, n.d.; Office of the State Department of Education, 2014; OLR Bill Analysis, n.d.). The spread of TAM as a remedy to the increase in targeted violence attacks was also demonstrated in 2013, six months after the attack at Sandy Hook Elementary School, when the Virginia Commonwealth's General Assembly became the first state legislature in the USA to require that all K-12 schools in Virginia have TAM capability (Virginia Law, n.d.). As more corporations, workplaces, schools, colleges, and law enforcement agencies recognize the value of TAM and acquire prevention capabilities, it becomes increasingly important and relevant for law enforcement, mental health, and criminology professionals to understand basic principles, key terms, and ways in which TAM can help to prevent violence.

## Key Terms

To develop a working understanding of TAM and the core concepts involved, professionals should be familiar with the following key terms and definitions:

- *Threat*—a perceived possibility of harm; or a statement conveying an intention to cause harm (Meloy, Hart, et al., 2014).
- *Violence*—any actual, attempted, or planned injury of other people; it is intentional, non-consenting, and without lawful authority (Meloy, Hart, et al., 2014).
- *Affective violence*—reactive, impulsive, defensive, emotional violence, preceded by autonomic arousal, caused by a reaction to a perceived threat, and accompanied by intense feelings of anger and/or fear (Meloy, 1988, 2006). This is the most common mode of violence.
- *Predatory violence*—instrumental or offensive violence characterized by the absence of autonomic arousal and emotion, the absence of an imminent threat, and involving planning

and preparation before the attack (Meloy, 1988, 2006). This is a typically more dangerous and less common mode of violence.

- *Targeted violence*—the operational term for predatory, instrumental, or offensive violence. Perpetrators preconceive their violence (focused on individuals, groups, or locations) and engage in behaviors that precede and are related to their attacks. They consider, plan, and prepare. These behaviors are often detectable, which provides an opportunity for disruption of the intended violence by utilizing a comprehensive, multidisciplinary approach for assessment and intervention (Fein & Vossekuil, 1998; US Department of Defense, 2012).
- *Structured professional judgment*—an organizing methodology for conducting threat assessments that relies on clinical and/or operational expertise within a structured application or protocol; it operationally defines risk factors, allows for idiographic (case specific) risk factors, and focuses on threat management and prevention (Grove & Meehl, 1996).
- *Precipitating events*—Events, circumstances, and contextual stressors that can increase the likelihood of a targeted violent act or strengthen commitment to the violent plan (e.g., divorce, termination, financial crisis, and substance use). Often it involves a loss of love or work.
- *Stabilizers and buffers*—Variables or values that can mitigate the likelihood of an act of violence (e.g., supportive family members, mental health treatment, fear of losing a job or going to jail, loss of reputation, and anticipated guilt).

## Threat Assessment and Management Process

In a landmark effort, the Exceptional Case Study Project (ECSP) was published in 1999 by the USSS (Fein & Vossekuil, 1999). After conducting an in-depth analysis of 83 assassinations and attempted assassinations of public figures and elected officials, the USSS discerned that prevention of these acts of targeted violence flowed from three distinct yet highly interconnected phases: identification, assessment, and management. As a

follow-up to the ECSP, in 2002, the USSS collaborated with the US Department of Education to produce the Safe Schools Initiative (Fein et al., 2002), a very useful document created to guide TAM professionals or law enforcement officers in conducting threat assessments and management efforts in K-12 settings. In studying assassins and schools shooters, the USSS and the US Department of Education subsequently identified six core principles that serve as the foundation for the threat assessment process. They include:

1. Targeted violence is the end result of an understandable, and oftentimes discernible, process of thinking and behavior.
2. Targeted violence stems from an interaction among the individual, the situation, the setting, and the target.
3. An investigative, skeptical, inquisitive mindset is critical to successful threat management.
4. Effective threat management is based upon facts, rather than on characteristics or "traits."
5. An "integrated systems approach" should guide threat assessment inquires and investigations.
6. The central question in a threat assessment inquiry or investigation is whether a person poses a threat, not whether the person has made a threat (Fein et al., 2002).

These principles frequently serve as the foundation for TAM professionals and teams when they address a threatening person or communication. When an incoming request for a threat assessment is received, a TAM professional should apply the accepted best practices within the field of TAM, which suggest that a team approach is preferable to addressing the threat as an individual assessor or manager. The "Lone Ranger" approach is ill advised. As the American National Standard for Workplace Violence Prevention and Intervention (ASIS, 2011) noted, "an important maxim that applies to both prevention and incident management is the notion that no one 'goes it alone.'" (p. 16). Thus, a typical interdisciplinary TAM team will involve law enforcement officials, mental health care professionals, security officials, human resource

specialists, legal counsel, and other experts as needed, depending on the context of the situation. The current authors understand that assembling a TAM team may not always be feasible; however, we nevertheless strongly encourage the use of a TAM team when possible.

When a new threat is received, the law enforcement officer or TAM professional first should conduct a triage to appropriately consider the urgency and imminence of the potential threat. With the understanding that each threat must be considered individually and within the totality of the unique circumstances that present, the authors recommend that an effective triage (Deisinger et al., 2014; Meloy, 2011) consists of the following questions:

1. Are there indicators the subject has developed and/or operationalized plans for suicide?
2. Are there indicators the subject has developed and/or operationalized plans for violence toward others?
3. Are others around the subject frightened, anxious, and/or concerned the subject will use violence against them or others?
4. Does the person have access, or are they trying to gain contextually inappropriate access, to a weapon such as a firearm or explosives, often through clandestine or deceptive means?
5. Is the subject demonstrating any last resort warning behaviors, such as the preparation of a legacy token or other final preparatory acts?

The goal of this screening is to quickly determine if violence is imminent—therefore necessitating immediate protective or law enforcement intervention—or if the circumstances allow for more information collection and evaluation over time by the TAM team (Deisinger et al., 2014). If the triage determines that violence is imminent and plans for an attack are highly operationalized by the offender, immediate interventions (such as arrest, emergency physical security measures such as "lockdowns," or other urgent measures) should be considered. If the triage determines no imminent or immediate threat exists, the TAM may proceed to gather additional information regarding the potential offender. Once the triage

is conducted, an initial assessment can be generated and assigned appropriately based on the level of concern for significant and/or imminent violence.

Any law enforcement official or TAM professional assigned to investigate threat cases quickly learns that threat assessment generally involves two distinct genres: the assessment of threatening communications and the assessment and management of persons who may become violent. Both have very different requirements and challenges for the law enforcement professional.

## Threatening Communications

As previously noted, one of the core foundational concepts of threat assessment is that oftentimes there are many differences between those who *make* threats of violence and those who *pose* a threat of violence (Borum et al., 1999; Calhoun, 1998; Calhoun & Weston, 2003; Dietz, Matthews, Martell, et al., 1991; Dietz, Matthews, Van Duyne, et al., 1991; Meloy, 2000). Offenders who have committed acts of targeted violence—such as active shootings or assassinations—rarely, if ever, issued a direct communicated threat to their intended target prior to attacking (Meloy & Hoffmann, 2014). When considering the predatory nature of targeted violence, this should not be surprising. A threatening communication typically sparks a predictable response which includes heightened security, increased vigilance, and additional barriers between the offender and the target, all of which are undesirable to an offender who truly wants to commit violence (Simons & Tunkel, 2014). In cases involving acts of targeted violence, it is rare to find an offender who wants to directly alert a target *before* an attack happens, thus sacrificing the element of surprise and compromising his plans.

Yet, as frequently demonstrated, threatening communications can be extremely disruptive, problematic matters that demand police attention and drain investigative resources. Law enforcement and TAM professionals are routinely called upon to evaluate threatening communications,

particularly with the proliferation of social media and the ubiquitous nature of online connectivity. For instance, in 2015 numerous airline flights were disrupted by short threats that were broadcast via Twitter; these communications prompted the rerouting of planes mid-flight and caused widespread anxiety ("Twitter Terror," 2015). In 2012, several major universities and institutions of higher education in the USA and abroad received anonymized, rerouted electronic threats that prompted mass evacuations and necessitated costly safety sweeps by law enforcement and other campus safety professionals ("String of Bomb Threats," 2012). Additionally, the use of letters containing white powder continues to represent a unique and disruptive challenge to victimized businesses as well as the hazardous materials first responders who must dedicate extreme caution and significant time. It is likely that such threats used by offenders to provoke fear, anxiety, and to harass or intimidate the victim recipient, will increase as options for diverse and anonymous methods of delivery continue to expand.

When evaluating threatening communications, a TAM professional will examine the mode of delivery, characteristics of the victim, context of any relationship between the threat author and the victim recipient, and possible motives. He or she will also look for evidence of operationalization of a plan; search for indicators of the author's resolve for violence; and assess for signs of imminent acting out (Simons & Tunkel, 2014). Generally, a thorough and thoughtful assessment of a threatening communication will help answer two primary concerns: (a) how does the victim recipient react to the communication (e.g., evacuation of a facility), and (b) who is the likely author of the communication?

While direct threatening communications are rarely indicative of future violent intent in matters involving targeted violence, all communicated threats are initially taken very seriously because any individual may act subsequent to his threat (Meloy, Sheridan, & Hoffmann, 2008). Additionally, there is substantial evidence to suggest that threatening communications issued between intimate or former intimate partners may be highly correlated to future violence; this originally was theorized by Calhoun and Weston (2003) and is referred to as "the intimacy effect."

## Persons of Concern

The more daunting challenge for the TAM professional may be the identified *person of concern*, an individual who has or is currently demonstrating behaviors suggestive of potential future violence. A person of concern typically comes to the attention of law enforcement or TAM teams because he or she has made statements, generated communications, or behaved in such a way that others have grown anxious or frightened. Once identified, law enforcement and TAM professionals must attempt to accurately and fairly assess the individual's propensity for violence, balancing the safety needs of the community with the individual's constitutional rights, including his right to privacy.

This process of assessment relies heavily upon the examination of the constellation of the person's behaviors, and specifically seeks to determine if there is evidence to indicate that he or she is moving from an idea to action (Calhoun & Weston, 2003). The objective of the TAM professional or team in conducting this assessment is to determine: (a) if the behaviors and conditions demonstrated by the person of concern are consistent with preattack preparations, and (b) if the subject appears to be moving toward or away from an attack (Fein et al., 1995).

To assess the person of concern and their efforts to operationalize any contemplated plan of attack, it can be helpful to understand a theoretical model commonly referenced in TAM literature and practice: the "pathway to violence" (Calhoun & Weston, 2003; Fein et al., 1995; Meloy, Hart, et al., 2014). Originally conceptualized by the USSS in their examinations of assassins and school shooters, the stages for this model were further described by Calhoun and Weston (2003). The model suggests that attackers first develop a profound *grievance*, a sense of anger and resentment at an undeserved injustice that is perpetrated upon the subject by a person or

institution. The grievance often may be exacerbated by an underlying robust but ultimately fragile narcissism laced with a sense of entitlement, privilege, and/or ability that is susceptible to compromise and "bruising" when unrecognized by others. Real or perceived insults to the subject's self-identity may result in an ego-dystonic state where the subject's rage and violent fantasy (*ideation*) provide the only compensatory relief to his sense of humiliation. As described by Dietz (1986), Hempel, Meloy, and Richards (1999), and Knoll (2010a, 2010b), a warrior or "pseudocommando" mentality begins to saturate the offender's thoughts while simultaneously inflaming his narcissistic grandiosity. The subject is unable to find satisfaction or repair outside the violent fantasy.

> "For the pseudocommando, revenge fantasies are inflexible and persistent because they provide desperately needed sustenance to his self-esteem. He is able to feel better by gaining a sense of (pseudo) power and control by ruminating on, and finally planning out his vengeance" (Knoll, 2010a, 2010b, p. 90).

Undoubtedly many persons of concern experience a profound grievance and harbor ideas of violence without actually moving on to commit a violent act. However, it appears that some offenders become so enthralled by the violent ideation and psychologically intoxicated by the compensatory relief it provides to their fractured ego, that they lose the desire or ability to pursue other, healthier means of resolution. "Toxic levels of envy and narcissism … can fracture the personality, hold it hostage and in thrall, by being fueled by triumph and contempt" (Knoll, 2010a, 2010b, p. 703). The developing pseudocommando must hold fast to his "hatred of anything such as growth, beauty, or humanity which is an advance over a bleak, static interior landscape" (Knoll, 2010a, 2010b, p. 710). The subject, having fully embraced the idea that violence remains the only remedy for the grievance, decides to pursue the operationalization of his violent fantasy. Referenced as a "violent action imperative" (Mohandie & Duffy, 1999), the subject determines that all alternatives have evaporated, and violence remains the only option. This flawed

perception may have been demonstrated by Kip Kinkel, who attacked at Thurston High School in Springfield, Oregon, in May of 1998, killing two classmates before being overpowered by students and staff. During a police interview after the attack, Kinkel kept repeating the phrase, "I had no choice. I had no other choice." (Kirk, 2000). It is often during the ideation phase that subjects begin to exhibit a fascination with previous attacks and attackers, demonstrating recognition of the notoriety that often accompanies high profile acts of targeted violence (Meloy, Mohandie, Knoll, & Hoffmann, 2015).

It is crucial for the law enforcement officer to understand that ideas of violence without action are often protected under the First Amendment as freedom of speech and—generally speaking—may not constitute a criminal act. However, these violent fantasies sometimes serve as the springboard for the offender who decides that real, operationalized violence is the only option, and as a result these fantasies cannot be ignored by the TAM professional or team.

Once the evolving offender escalates beyond ideation into action, he or she begins to engage in *research and planning*. Research and planning may be described as the offender's first steps toward bringing a plan to fruition, bridging the gap between an idea and an act. Examples of research and planning can include selecting the target, photographing targeted areas (e.g., classrooms, hallways, theaters); charting out areas for explosive devices; ordering weapons, ammunition, or ballistic armor online; or practicing with weapons with the goal of killing persons (versus improving marksmanship). Research and planning differs from ideation in that the offender is now taking concrete steps to get ready for an attack. When viewed in totality, there is evidence the offender has dedicated effort and energy toward a goal and is taking steps to accomplish the goal.

The offender then may graduate to the step characterized as *preparation*. In this phase, he or she accumulates all of the necessary weaponry, ammunition, clothing, tools, or other practical materials needed for an attack. Simultaneous to the logistic preparation, he or she is now becoming psychologically ready for the attack.

An offender may be at heightened risk for an imminent attack if he or she demonstrates behaviors consistent with the next phase, *breaching*. To be in close physical proximity to the targeted institution or person an offender must circumnavigate or overcome any barriers or obstacles that exist between him and the target. Without routine or normal access to a targeted facility, an offender may breach by conducting a "dry run" penetration test, such as intruding into a facility where he or she has no legitimate access for the express purpose of collecting intelligence on security countermeasures. Another example of breaching is an offender who, commensurate to the attack, surreptitiously smuggles weapons into a classroom or theater and then waits to attack.

The final phase is, of course, the *attack* itself. In this moment an offender lashes out in a destructive, nihilistic fashion in an attempt to completely dominate the targeted institution or person. For the offender the attack typically represents the manifestation of two desired states: perceived infamy and notoriety resulting from inevitable media coverage of the attack, and a sense of robust—albeit transient—omnipotent control. As originally described by Freud (1914) and forensically applied by Meloy (1988), the offender's depleted narcissism fuels an overwhelming desire for omnipotent control over the target. Although the offender may consciously realize the attack will result in his or her arrest or death, the momentary control experienced during the attack is perceived as not only restorative, but transformative. Paradoxically, as Bion (cited in Grotstein, 2007) noted, the narcissistic defenses have been *reduced* to omnipotent control, and at a terrible cost to the offender and others.

As familiar as TAM professionals should be in understanding conceptual models such as the "pathway to violence," it is equally important for them to recognize that pathway behaviors may not be demonstrated in every situation or by every potential offender. In exploring typologies to identify patterns of behavior consistent with preattack behaviors and violent intent, Meloy and colleagues formulated a model of risk factors based on research and experience (Hempel et al., 1999; Meloy, Hoffmann, Guldimann, & James,

2012; Meloy, Hoffmann, Roshdi, & Guldimann, 2014; Meloy & O'Toole, 2011). In this model of "Warning Behaviors," the pathway to violence is one pattern of proximal behaviors that a TAM professional or team should consider when conducting an assessment. Meloy's model of Warning Behaviors include:

1. *Pathway warning behavior*—any behavior that is part of research, planning, preparation, or implementation of an attack (Meloy et al., 2012. These are the final stages of the pathway as enunciated by Calhoun and Weston (2003).
2. *Fixation warning behavior*—any behavior that indicates an increasingly pathological preoccupation with a person or a cause (Mullen, Pathe, & Purcell, 2009). It is measured by (a) increasing perseveration on the person or cause, (b) increasingly strident opinion, (c) increasingly negative characterization of the object of fixation, (d) impact on the family or other associates of the object of fixation if present and aware, and (e) angry emotional undertone. It is accompanied by social or occupational deterioration.
3. *Identification warning behavior*—any behavior that indicates a psychological desire to be a "pseudocommando," (Dietz, 1986), have a "warrior mentality" (Hempel et al., 1999), closely associate with weapons or other military or law enforcement paraphernalia, identify with previous attackers or assassins, or identify oneself as an agent to advance a particular cause or belief system (Meloy et al., 2015).
4. *Novel aggression warning behavior*—an act of violence that appears unrelated to any targeted violence pathway warning behavior and is committed for the first time. Such behaviors may be utilized to test the ability (de Becker, 1997) of the subject to actually do the violent act and may be a measure of response tendency, the motivation to act on the environment (Hull, 1952), or a behavioral tryout (MacCulloch, Snowden, Wood, & Mills, 1983). When homicide occurs within this warning behavior, it may be "proof of kill"

(G. Deisinger, personal communication, February 2011).

5. *Energy burst warning behavior*—an increase in the frequency or variety of any noted activities related to the target, even if the activities themselves are relatively innocuous, usually in the hours, days, or weeks before the attack (Odgers et al., 2009).

6. *Leakage warning behavior*—the communication to a third party of intent to do harm to a target through an attack (Meloy & O'Toole, 2011).

7. *Last resort warning behavior*—evidence of a "violent action imperative" and "time imperative" (Mohandie & Duffy, 1999); increasing desperation or distress through declaration in word or deed, forcing the individual into a position of last resort. There is no alternative other than violence, and the consequences are justified (de Becker, 1997). The subject feels trapped (S. White, personal communication, October 2010). Within this pattern there may be observable changes in behavior such as the preparation of a *legacy token*—a communication (e.g., video and manifesto) created by the offender and delivered or staged for discovery (Simons & Tunkel, 2014). In creating a legacy token, the offender attempts to: (a) claim credit as the mastermind and primary attacker, (b) articulate the motivations and reasoning behind the attack so others may fully understand the offender's grievance, and (c) perpetuate the media cycle of coverage that inevitably emerges in the aftermath of the attack. The legacy token, particularly if delivered via social media or online, helps the offender achieve a degree of notoriety or infamy that he or she desperately craves, even when paired with the realization it will be gained posthumously. A disturbing trend in legacy tokens that follows social media technological advances is the self-recording of targeted violence as it occurs. This was observed in the attack by Vester Flanagan on a reporter, a camera operator, and an interviewee in Roanoke, Virginia, in the fall of 2015. He self-recorded his double homicide and then uploaded the gruesome video to Twitter and Facebook during his flight and final hours of his life before he committed suicide (Ingram, 2015). This *innovation* in legacy tokens may portend imitations by others, including the Internet broadcasting attacks *in real time* via various social media platforms and applications. Such "instant legacy tokens," propagated through viral views, reposts, and the media, provide a tantalizingly immediate and stimulating gratification for the offender as he chases infamy and recognition.

8. *Directly communicated threat warning* behavior—the communication of a direct threat to the target or law enforcement beforehand. (Note again that this particular feature is infrequently linked with assassins or active shooters, and more commonly associated with intimate and former intimate partners). In one study, five of the warning behaviors (pathway, fixation, identification, novel aggression, and last resort) were able to significantly discriminate with large effect sizes between a sample of German school shooters and other students of concern (Meloy, Hoffmann, et al., 2014).

When conducting a threat assessment, the TAM professional should be alert for dramatic changes in behavior that may indicate preattack preparation. For instance, an interesting finding has emerged in the relationship between alcohol/drugs and the two modes of violence. Intoxicating drugs such as alcohol are very common in cases of affective violence, but very infrequent in cases of predatory or targeted violence. Why? In affective violence, alcohol often disinhibits the impulsive behavior; in predatory violence, alcohol may cloud the consciousness of the perpetrator and reduce the probability of a successful attack. The attacker wants a clear mind to enhance his "predatory acuity" (Meloy et al., 2012). TAM professionals assessing a subject's potential for targeted violence therefore should be alert for any sudden or inexplicable cessation of alcohol or drug use, as the person of concern may be "cleansing" in order to prepare for the impending attack. Such cleansing was demonstrated by George Sodini, who shot and killed female gym members at an aerobics class in Pittsburgh, Pennsylvania in 2009.

Sodini wrote in his online blog on Monday, August 3rd, the day before the attack: "*I haven't had a drink since Friday at about 2:30. Total effort needed. Tomorrow is the big day*" ("*Full text*," 2009).

The evaluation of warning behaviors and other factors helps the TAM professional evaluate the motivation and intent of the person of concern, while gaining insight into the direction of energy and effort toward an attack, or away from it (Fein et al., 1995). At the end of the assessment, the TAM professional or team should be able to answer the following questions (Fein et al., 1995):

1. Does it appear more or less likely that violent action will be directed by the subject against the target(s)?
2. How close is the subject to attempting an attack?
3. What might change in the person of concern's life to increase or decrease the risk of violence?

## Threat Management

Threat management is the process of developing and implementing plans to mitigate the threat of violence posed by a person (Meloy, Hart, et al., 2014). The interplay between threat assessment and threat management is a dynamic and continuous process—the threat assessment forms the basis for the threat management strategy, which, once implemented, begins to influence and modify the assessment, which in turn shapes the next intervention (Meloy, Hart, et al., 2014). Successful management of a threatening situation generally requires substantial time and effort. As eloquently described by the US Secret Service and the US Department of Education in *Threat Assessment in Schools* (Fein et al., 2002), the management of these situations comprises three related functions:

1. Controlling/containing the situation and/or person of concern in a way that will prevent the possibility of an attack;

2. Protecting and aiding possible targets; and
3. Providing support and guidance to help the person of concern deal successfully with his or her problems. (p. 63)

Once assessed, the challenge for TAM professionals in addressing a person of concern is how to operationalize the assessment via the development and implementation of a meaningful threat management strategy. In effective threat management, the TAM professional or team exploits information derived from the assessment to remove, suppress, reframe, or minimize threat-enhancing factors (e.g., job or academic stress) while simultaneously enhancing or amplifying threat-mitigating factors (e.g., mental health care treatment, support systems). Examples of threat management strategies with varying levels of intensity (Calhoun & Weston, 2003) include:

- Waiting, watching, and monitoring (low intensity);
- Routine but informal voluntary "status-check" meetings with law enforcement or
- security personnel (low to moderate intensity);
- Voluntary counseling via Employee Assistance Programs, campus counseling
- centers, or other outpatient mental health care services (low to moderate intensity);
- Disciplinary actions, such as relocation or boundary-setting measures to modify
- behavior (moderate intensity)
- Temporary suspension/exclusion from a facility or institution (moderate to high intensity);
- Mandated mental health evaluations to assess "fitness for duty" or formally
- evaluate for violence risk (moderate to high intensity);
- Termination, exclusion, and/or expulsion (high intensity);
- Arrest or involuntary emergency mental health care hold (high intensity);

Each intervention impacts and influences the subject and thereby modifies the original threat assessment. The ongoing management of a person of concern necessitates that the TAM professional

continuously monitor and consider the impact the threat management strategy has upon the subject. While each threat management strategy hopefully reduces the overall level of concern, the TAM professional must be vigilant for a threat management strategy that potentially exacerbates the situation by increasing the subject's propensity for violence. For example, a paranoid and delusional individual who believes the government is targeting him with radio waves may not respond favorably to routine interviews and welfare checks from uniformed law enforcement officers representing a local, state, or federal government agency.

## Clinical/Mental Health Issues

The relationship between mental illness and targeted violence remains a complex and oftentimes confusing area for TAM professionals. There has been voluminous research over the past 40 years by distinguished academics on this topic; some studies indicate mental illness does not increase general violence risk (e.g., Elbogen & Johnson, 2009; Monahan et al., 1981) while other studies suggest it does increase violence risk (e.g., Douglas, Guy, & Hart, 2009; Mullen et al., 2009). Often, the disparity in findings is a result of definitions, sample selection, and timeframe measurements. For example, is the independent variable a diagnosis of severe mental illness (e.g., schizophrenia or bipolar disorder), noncompliance with medications in those with severe mental illness, the presence of psychosis, or the length of time between the onset of psychotic symptoms and the violent act? Are samples drawn from psychiatric clinics, hospitals, or communities? Are they random or nonrandom? Did the researcher measure violence over the course of hours, days, weeks, months, or years? Are the data collected through self-report, official records, collateral contacts, or all three? Are we studying violence among the mentally ill, or mental illness among those who are violent? While each of these variables can affect the findings, we can arrive at some preliminary conclusions: (a) psychosis, as a generic term that refers to a loss of contact with

consensual reality and the creation of an internal, idiosyncratic, and bizarre reality, does account for a small proportion of the effect size when considering increased risk of violence; (b) other variables, most notably drug use and psychopathy, increase violence risk at a much greater magnitude; (c) the mentally ill will show greater frequencies of violence when they use illicit drugs compared to those without a mental illness who use illicit drugs; (d) the findings in nomothetic (large group) studies should anchor each risk assessment, but final opinions should be individualized, and structured professional judgment instruments should be utilized to do so; and (e) there remains much work to be done in exploring a possible link between mental illness and targeted violence, as the history of violence and mental illness research has often neglected to distinguish between affective (emotional, reactive) violence and predatory (targeted, intended, instrumental) violence (Meloy & Hoffmann, 2014; Viding & Frith, 2005).

The relationship between mental illness and targeted violence consequently remains unclear. An expert panel convened in 2013 by the American Psychological Association found that although many highly publicized shootings have involved persons with serious mental illness, persons with serious mental illness commit only a small proportion of firearm-related homicides; the problem of gun violence cannot be resolved simply through efforts focused on serious mental illness (Webster & Vernick, 2013). This finding is supported by the observation that in the USA approximately 82 individuals per day were killed by a firearm between the years 2003 and 2012; of these, 61% were suicides (Wintemute, 2015). But what about mass killers or active shooters, especially those who kill in public spaces? Are those in this very small group of offenders more likely to have a mental illness?

In exploring the prevalence of mental illness among mass killers, Meloy et al. (2004) examined the psychiatric histories of 30 adult mass murderers and 34 adolescent mass murderers (with mass murders defined as the killing of three or more persons during a single event). Fifty percent of the adult subjects and 23% of the

adolescent subjects had a psychiatric history. The adults typically met criteria for paranoid schizophrenia, delusional disorder, or major depression. Sixty-three percent of the adolescents who killed in schools had depressive symptoms at the time of the crime. However, only 6% of the adolescents evidenced signs or symptoms of psychosis (behaviors that inferred the presence of delusions, hallucinations, or loss of contact with consensual reality) at the time of the mass murder. This finding is in stark contrast to the 40% of adult mass murderers who were judged to be psychotic and the additional 27% who exhibited behaviors suggestive of psychosis. Only one-third of the adult mass murderers showed no evidence of psychotic symptoms at the time of the killings (Meloy et al., 2004). In a more recent and much larger study of mass murderers (*N* = 235), Stone (2015) found that approximately 20% were psychotic at the time of the killings, a much lower figure than the older studies of Hempel et al. (1999) and Meloy et al. (Meloy et al., 2004; Meloy, Hempel, Mohandie, Shiva, & Gray, 2001). Stone wrote, "all told at least 33 of the 46 cases can be viewed as disorders within the schizophrenic spectrum" (p. 77). Most of these cases had a decidedly paranoid dimension to them.

How do these figures compare to the general population? Statistics compiled by the National Institute of Mental Health (NIMH) suggest that approximately one in five adults (18.5%, translating to roughly 43.8 million Americans) experience mental illness in a given year. Additionally, 1 in 17—about 13.6 million people—live with a serious mental illness such as schizophrenia, major depression, or bipolar disorder (NIMH, n.d.-b). Approximately 20% of adolescents ages 13–18 experience severe mental disorders each year (NIMH, n.d.-a). For the TAM professional or team, the challenge becomes how to interpret the data in the overall, holistic context of the situation.

Generally, the TAM professional should look for evidence or hallmarks of depression—hopelessness, desperation, and/or despair and paranoia—when evaluating a person of concern or a threatening communication (Fein et al., 2002).

The presence of these indicators may suggest the individual has lost the energy, will, or ability to consider alternatives to violence. He may attribute his problems and plight to others, sometimes in the manner of an active conspiracy against him. Evidence of contemplated or attempted self-harm, suicide, or other self-destructive behaviors should be carefully considered by the TAM professional as a threat-enhancing characteristic: suicide risk positively correlates with homicide risk, although most suicides will not result in an accompanying homicide.

The TAM professional must carefully consider each case individually, assessing the impact that any mental illness may have on the person of concern in their particular circumstance and situation. For the overwhelming majority, a properly managed mental illness will not increase or impact their propensity for violence. For others, the mental illness may inhibit or repress the individual's ability to effectively leverage coping mechanisms against contextual stressors.

## Access to Firearms

While intense public discussions concerning access to firearms emerge in the aftermath of each tragic attack, there are two findings that are not in question: first, firearms are a weak predictor of violence in general; and second, firearms can be a strong predictor of lethality risk when in reach of a person of concern to a threat assessor. The TAM professional or team needs to approach this topic not from a political perspective, but from that of evaluating a potential offender's operationalization of a violent plan. As noted by the authors of the *Safe Schools Initiative* (Fein et al., 2002): "…when the idea of an attack exists, any effort to acquire, prepare, or use a weapon or ammunition, including bomb-making components, may be a significant move in the attacker's progression from idea to action" (p. 24). Firearms continue to be the most commonly used weapons in mass attacks, with approximately 80% of workplace homicides and 54% of college campus attacks involving the use of guns (Drysdale, Modzeleski, & Simons, 2010; Harrell, 2011).

It is valuable for a TAM professional or team to specifically consider the *contextually inappropriate* use or attempt to access firearms that may be inconsistent with the subject's past history. For example, a subject in crisis with no previous interest in firearms who suddenly develops an urgent need for a high-capacity rifle may represent a much different level of risk when compared to the longtime gun enthusiast who does not deviate from his or her routine firearms behaviors. Individuals planning and preparing for an act of targeted violence, particularly against multiple targets, may often accumulate weapons *in secret*; the gun enthusiast, on the other hand, will openly purchase a new firearm with great pride and cannot wait to show it to his best friend who appreciates his collection. Meloy et al. (2004) also found (anecdotally) that mass murderers in the planning and preparing stage purchase multiple firearms over time, each one of increasing caliber, and each purchase will be made sooner than the last. At least one study indicated that an average of three firearms typically are brought to the scene of a mass murder (Hempel et al., 1999). TAM professionals and teams should look for other contextually inappropriate behaviors related to firearms such as an unexplained, sudden, and urgent interest in acquiring or accessing firearms; unexplained and sudden escalation in any firearms practice; and/or the incorporation of violent fantasy into firearms-related activities (e.g., using targets featuring pictures of specific persons familiar to the subject, staging targets on the ground).

## Careers in Threat Assessment

There are many growing career opportunities for law enforcement or criminal justice professionals within threat assessment and management, including:

- *Police and federal law enforcement*: Several local police agencies, such as the Los Angeles Police Department, have TAM teams who routinely address issues of targeted violence. Many federal law enforcement agencies, such

as the FBI's Behavioral Analysis Unit, the USSS's National Threat Assessment Center, the US Marshals Service's Behavioral Analysis Unit, and the US Capitol Police's Threat Assessment Section provide threat assessment and management services for matters involving potential acts of targeted violence. TAM teams or units often hire experienced investigators/agents and analysts who then receive extensive training in TAM principles, processes, and management strategies. Additionally, the Department of Defense and the Department of Homeland Security have initiated several TAM programs such as the Threat Management Unit (TMU) at the Naval Criminal Investigative Service and TMU at the US Coast Guard Investigative Service, respectively.

- *Psychologists, psychiatrists, and mental health care practitioners*: Psychologists, psychiatrists, school counselors, and other mental health care practitioners are increasingly involved as core members of a TAM team. While not every potential attacker has a mental disorder, some do, and many will be struggling with contextual stressors that can overwhelm their coping mechanisms and mental wellness. Having a psychologist, psychiatrist, or other mental health care professional can increase the team's effectiveness, particularly when developing and implementing threat management strategies. Additionally, mental health care providers functioning as members of an Employee Assistance Program (EAP) can provide counseling to employees of concern as part of a remedial or corrective plan (ASIS, 2011). As University of Virginia psychologist Dr. Dewey Cornell noted, "We don't intervene because we predict someone is dangerous, we want to intervene because they're troubled or there's conflict or people are worried about them. Prevention becomes a bonus or a secondary gain from dealing with the underlying issue." (Miller, 2014).

- *Chief Security Officer/Private Corporate Security*: most major corporations have developed internal policies and regulations concerning workplace violence and the prevention

of violent acts on facility grounds. In recognizing the importance of prevention, some companies have aggressively developed TAM teams to proactively intervene when an employee provokes anxiety and concern among colleagues. TAM teams in the corporate environment are often led by the Chief Security Officer, Global Director of Security, or other security personnel that have specific training and experience in TAM matters.

- *Human Resource Professionals*: in the continuing effort to prevent violence in the workplace by employees and former employees, human resource professionals represent a crucial component for any functioning TAM team. "Human Resources will often contribute key skills to incident management including—but not limited to—escalating the report to appropriate personnel, conducting or assisting in the investigatory process, communicating with affected or involved employees, and providing input as the organization attempts to address and resolve a report through the imposition of disciplinary action or other remedial or preventative measures" (ASIS, 2011, p. 8).

- *Research Analysts*: many universities, government agencies, and nonprofit organizations are engaged in research regarding targeted violence, the causes and motivations behind the acts of violence, and the methods for detection and disruption. As TAM continues to grow as a professional field of social science, the need for research regarding behavioral indicators of violence will likely increase.

- *Cyber Analyst/Social Media Analysts*: there is a growing focus in TAM on the assessment of social media for content and sentiment analysis and indicators of violent intent. Not surprisingly, there are many examples of offenders who expressed leakage of violent intent via social media interactions prior to or immediately commensurate to the attack. The tragic attack in Roanoke demonstrates the growing fascination with and use of social media concurrent to an act of targeted violence. Whether used as a platform to express leakage or as a podium from which to announce and glorify the attack, social media appears to have a growing prominence in attackers' quests for infamy and notoriety via violence. The thorough examination of a subject's social media—conducted with respect to privacy and First Amendment freedom of speech—may help inform a TAM assessment and develop insight into the subject's grievances, plans for violence, and movement from thought to action.

## Conclusion

Law enforcement officials, mental health care professionals, and criminologists increasingly are involved in the effort to accurately assess and manage persons of concern who may be planning an act of targeted violence. These TAM professionals do not attempt to predict violent behavior but instead work diligently and collaboratively to prevent these acts from occurring. TAM teams and professionals first triage and assess a person of concern using structural professional judgment to determine if the person is on a pathway toward a violent act. This assessment is highly contextualized and focuses on a holistic evaluation of the person's historical, clinical, dispositional and situational factors (Elbogen & Johnson, 2009; Monahan et al., 2001). The assessment drives and informs the development of a dynamic threat management strategy that varies in intensity and intrusiveness depending on the person and the situation.

With the continued rise in the number of active shootings in the USA it is very likely that as you read this chapter, someone who is filled with rage is contemplating an attack, planning a shooting, and preparing to inflict catastrophic violence against an unsuspecting classroom, workplace, or community. The prevention of such acts may well rely upon the dedication of a skilled legion of law enforcement and mental health professionals who combine research and experience to assess and manage these potential attackers away from devastation, guiding them off the pathway to violence and on to a more positive trajectory.

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# Neuropsychology of Violence

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Aggression has many neurobiological causes. It may arise from documented but uncommon disorders of the oldest parts of the brain, which include the limbic system and result in uncontrollable rage or under conscious control. Of most interest in neuropsychology, however, are those violence-related disorders which involve the frontal lobes of the brain, with special focus on the anterior parts of the frontal lobe (located behind the forehead and above the eyes), an area responsible for the control of our emotions in adults as well as for higher cognitive processes which differentiate adults from children and humans from animals. Much of the neuropsychological research has focused on the specific role of the left hemisphere in cases of criminal violence (Volavka, Martell, & Convit 1992). Other studies have focused on specific psychological attributes such as impulsivity in relationship to aggression. Neuropsychological assessments are most often used in forensic cases where there have been major crimes which require an understanding of why those

crimes occurred. A review of the research reveals a complex interaction between psychological and neuropsychological factors.

## Research Review

It has been theorized that individuals with a brain injury (most often head injuries in the younger groups seen in forensic studies) have impairment to the frontal lobes, resulting from the sensitivity of the frontal lobes to the impact or acceleration type injuries. For example, an early study assessing violent offenders used the Luria Nebraska Neuropsychological Battery, finding that violent offenders were significantly more impaired on all of the summary scales of the test suggesting impairment in multiple cognitive skills, but especially in more complex skills associated with the frontal and tertiary areas of the brain. In a mixed population with both violent and nonviolent offenders, 73% of those who had committed violent crimes showed evidence of brain injury, as compared to 28% of the nonviolent offenders (Bryant, Scott, Tori, & Golden, 1984).

The violent offenders showed evidence of more left (dominant) hemisphere injury than right hemisphere. While their ability to do basic functions of daily living and functioning were unimpaired, processes that required them to integrate and analyze information were impaired compared to nonviolent individuals. They

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performed poorly when needing to anticipate the consequences of their own behavior or when they needed to recognize they were making errors. They rarely showed brain injury related patterns of motor or sensory impairment, which are traditionally evaluated in neurology. Their histories rarely showed a clear single cause that would account for their deficits, but often had history of head injury from accidents, fights, and sports along with a poor history of school performance. Williams et al. (2010) found that criminals with a TBI history were younger (16.4 years) than those with no TBI history (20.1 years) when they first were convicted of a criminal offense. Individuals with TBI reported more time incarcerated as well over the previous 5 years. Fazel, Lichtenstein, Grann, and Långström (2011) examined criminals with violent tendencies using Swedish population registers from 1973 to 2009. Their findings demonstrated 8.8% committed the violent crime after a TBI. They also suggested that the presence of epilepsy increased the chance of violence.

Stoddard and Zimmerman (2011) utilized a longitudinal study, over 8 years, to assess for the impact of head injury on interpersonal violence. Participants were followed from mid-adolescence to the transition in adulthood and were recruited based on their risk to become a high school dropout. Results showed a relationship between self-reported head injury and future reports of violence. While brain injury led to an increase in violence overall, it did not do so in every case. Thus, it is necessary to look at individual factors which may have influenced the outcome. Such factors may include: (1) a tendency towards violence or impulsiveness prior to the head injury which is exacerbated by the injury; (2) environmental levels of stressors; (3) the opportunity for violence in which a larger patient used to controlling others may be more likely to act out; (4) the degree and location of the brain injury; (5) the response of the environment to the client's behavior which may act to exacerbate or ameliorate the client's reactions; and (6) the expectations of the environment for the client which may place undue pressure for the client to perform as they did prior to the injury, leading to substantial frustration and the buildup of anger.

Ferguson, Pickelsimer, Corrigan, Bogner, and Wald (2012) attempted to determine the prevalence rate of traumatic brain injury among South Carolina prisoners. Sixty-five percent of the male population and 72% of the female population reported a TBI history. Frierson and Finkenbine (2004) completed what they noted to be the largest study to date ($n = 270$) analyzing the psychiatric and neurological characteristics of accused murderers in the USA. Results indicated that substance use and mood/adjustment disorders were common. Furthermore, neuroimaging was abnormal in 18% of subjects and was associated with lower Performance IQ. However, they found that EEG and neurological exam findings were not associated with measured cognitive impairment. While 16% of subjects had a FSIQ < 70, only 6% were diagnosed with mental retardation. The retrospective record review also found that subjects who utilized a knife were more likely to have a psychotic disorder or anxiety. Nevin (2000) found an association between gasoline lead exposure and long-term trends in changes in violent crime and unwed pregnancy. Subsequent trends in murder rates going back to 1900 were also strongly associated with paint and gasoline lead exposure.

Bergvall, Wessely, Forsman, and Hansen (2001) evaluated prefrontal cognitive processing in violent offenders undergoing a forensic psychiatric assessment. Results indicated that violent offenders exhibit impairments in inhibitory control. They had difficulty adjusting their behavior in response to changes in the emotional significance of stimuli and they also showed difficulty shifting attention between categories. Other studies have attempted to look at the relationship between aggression and impulsivity. Sanford, Houston, Mathias, Villemarette-Pittman, and Helfritz, and Conklin (2003), suggested that aggressive behavior be classified as either predominately impulsive or predominately premeditated. Their results indicated that most individuals fall into a "mixed" group, emphasizing the complex nature of these issues and the need to look at the developmental level of the actual behavior. Lindberg et al. (2004) found that habitually violent men with Antisocial Personality

Disorder were found to have higher rates of an abnormal sleep structure and childhood ADHD, believing that the two disorders seem to partly share a deficit linked through the attentional/impulsivity systems within the brain.

One study investigated the role of impulsivity among incarcerated women with antisocial and violent behavior (Komarovskaya, Loper, & Warren, 2007). Female violent offenders, in contrast to their male counter parts, did not display higher levels of impulsivity than nonviolent offenders. Enticott, Ogloff, Bradshaw, and Daffern (2007) compared ten violent male offenders (inpatients in a forensic psychiatric hospital) with a mean full scale IQ of 103.43 to 10 "healthy" controls matched for age and IQ. The author's hypothesis was not confirmed, as group poor behavioral inhibition was not linked with inpatient aggression.

Levi, Nussbaum, and Rich (2010) utilized the IVA continuous performance task to look for differences between predatory, irritable, and nonviolent offenders. Significant differences were found on the Auditory, Visual, and Full Scale Response Control quotients. The irritable aggressors scored in the lower limit of the low average range on all three Response Control Scales signifying a higher level of impulsivity and inability to inhibit responses according to the demands of the task and commission errors were made on both auditory and visual stimuli. However, the predatory offenders did not display the tendency to respond impulsively, with their scores similar to the nonviolent group. With regard to Attention, significant differences were found on the Auditory, Visual, and Full Scale quotients. Cohen et al. (2003) found that batterers in a domestic violence program showed symptoms of increased impulsivity on cognitive tasks.

Retz and Rosler (2010) suggested that ADHD is associated with social problems and aggressive behavior. As hyperactive-impulsive traits are core symptoms of ADHD, it has been hypothesized that reactive-impulsive violence is more likely related to ADHD psychopathology than proactive-instrumental violence. According to DSM-IV, 16.5% subjects fulfilled diagnostic criteria for ADHD, 23.6% were diagnosed as ADHD in partial remission, and 59.8% had no ADHD. Results revealed that both ADHD groups had higher reactive violence ratings when compared to those with no ADHD diagnosis. The opposite was found regarding proactive violence ratings. When age, gender, and comorbid substance use disorders were controlled for, childhood ADHD psychopathology and current ADHD significantly increased the risk of reactive violence and decreased the risk of proactive violence, with a significant difference of proactive violence found in males.

Kaplan and Cornell (2004) looked into the presence of psychopathy and ADHD in adolescent male offenders. Results demonstrated a weak relationship between ADHD and psychopathy. Lopez-Leon and Rosner (2010) compared the IQ of subjects between the ages of 14 and 16 who had been convicted of committing a violent crime. They found that lower IQs in the violent group on all Wechsler IQ indices except Working Memory. Nearly half of the aggressive group had a documented history of head injury, with three having lost consciousness. Over half had a reported substance abuse history. Busch, Zagar, Hughes, Arbit, and Bussell (1990) evaluated adolescents convicted of murder. They found lower perceptual and full scale IQ scores, and increased educational difficulties. Diamond, Morris, and Barnes (2012) reported that an inmate's IQ, along with the average IQ of the prison unit, was negatively related to violent prison misconduct, even after controlling for age, race/ethnicity, and education.

Hanlon, Coda, Cobia, and Rubin (2012) found that the verbal memory ability of homicidal schizophrenic individuals was significantly worse than nonviolent/noncriminal schizophrenic.

## Frontal Lobes

A 2011 study by Kramer, Kopyciok, Richter, Rodriguez-Fornells, and Münte showed that high trait aggressive participants were found to evidence more impulsive behavior than low trait aggressive participants on the Tower of London (TOL). A longitudinal study by Barker et al. (2007) found that frequent physical violence was

associated with lower executive functioning and verbal performance. They suggested that lower cognitive performance, both on executive functioning and verbal performance tasks, was found with frequent physically violent participants. Better cognitive performance for both executive functioning and verbal performance tasks was found within nonviolent criminals.

Hoaken, Allaby, and Earle (2007) found that violent offender groups performed significantly poorer on a facial-affect recognition task than nonviolent offenders and controls. Further, these poor scores were significantly correlated with executive deficits.

A review by Brower and Price (2001) concluded that research has shown a connection between aggressive behavior and brain injury, specifically involving the frontal lobes in individuals with a history of violent and criminal behavior. The review further reported that focal frontal lobe dysfunction was associated with aggressive dyscontrol. The most support was found associating focal prefrontal damage and an impulsive subtype of aggressive behavior. The authors concluded that dysfunction of the prefrontal cortex was associated with increased rates of aggressive and antisocial behavior compared with subjects who had no injury or non-frontal brain injuries. These findings were alsWWo evidenced with prefrontal network deficits in aggressive and antisocial subjects in studies utilizing neuropsychological testing, neurological examination, EEG, and neuroimaging.

Hanlon et al. (2012) found significant differences on executive functioning tasks between homicidal schizophrenic individuals and nonviolent schizophrenic individuals. Executive functioning deficits were also noted on FAS (a verbal fluency task). Results suggested that a psychotic individual with deficits in response inhibition may have more difficulty inhibiting aggressive actions, specifically impulsive actions. Also, the tendency to exhibit perseverative thought patterns may translate to the inability to formulate nonviolent alternatives to deal with persecutory delusional beliefs. Lastly, the poor executive functioning scores in the homicidal schizophrenic patients suggests that, given they have difficulty adjusting their behavior with direct feedback, they may not be able to understand the consequences of their aggressive behavior.

Broomhall (2005) investigated the extent of executive function deficits in a population of 25 violent offenders. The population was separated into primarily instrumental and primarily reactive offenders based on their offence characteristics. It was hypothesized that there would be evidence of executive dysfunction in the sample and that in comparison with the primarily instrumental group, the primarily reactive group would show significant impairment on the executive function measures. Results supported these hypotheses; the primarily reactive group was significantly impaired on tasks that assessed higher-order executive functions. The primarily instrumental group was largely intact on executive function measures, although it showed a tendency to be selectively impulsive on several executive function measures depending on how important the task was judged to be. These findings suggested that primarily reactive offenders may have difficulty controlling their behavior (acquired sociopathy) while primarily instrumental offenders may choose not to control their behavior (selective impulsivity) and may not benefit from behaviorally based treatment.

Marsh and Martinovich (2006) researched the role of executive functioning in domestic violence. Their goal was to replicate prior studies linking traumatic brain injury in partner-abusive men and to further demonstrate the occurrence of executive functioning deficits, which have been reported with violent behavior and brain injury. Twenty-two percent reported at least one TBI with LOC with severity including 32% mild, 18% moderate, and 50% severe. Results of executive functioning measures showed impairment in about one-quarter of the population.

Yechiam et al. (2008) attempted to research the cognitive processes of offenders (81 offenders consisting of violent offenders, drug and sex offenders, drivers operating a vehicle while impaired, and 18 matched controls) were evaluated and the results were contrasted with results of neurological patients with focal brain lesions in the orbitofrontal cortex and drug abusers.

Utilizing the Iowa Gambling Task, they found that violent offenders (those charged with assault and/or murder) typically focused on immediate outcomes and made less consistent choices, resulting in poor decision making. Their results were more similar to the patients with orbitofrontal damage. A second study utilizing the Iowa Gambling Task (Levi, 2010) found that the irritable and predatory aggressors group exhibited the most difficulty, suggesting these two groups did not learn from environmental feedback. Verbal and design fluency measures were also included as an executive functioning measure, although no significant differences were found between the three groups.

Cohen, Rosenbaum, Kane, Warnken, and Benjamin (1999) attempted to examine impairments in executive functioning among batterers. Results exhibited significant deficits on executive functioning measures. They also evidenced poorer performance than controls on memory, learning, and verbal skill tasks. Further analysis showed that while traumatic brain injury accounted for some of the variance, it was not the primary factor in the significant findings. Cohen et al. (2003) conducted a follow-up study, finding significant differences between groups of batterers and non-batterers on several tasks of executive functioning.

Hancock, Tapscott, and Hoaken (2010) found that scores from executive measures were connected to the severity and frequency of violent offending, but not total offending or non-violent offending. Poor performance on impulsivity measures were connected to those with a large number of violent offenses. The more deficits in inhibiting verbal responses, the more likely they committed a serious violent offense.

## Personality

The role of personality in the neuropsychological evaluation has always been somewhat ambiguous, often not seen as a central purpose but more to rule out psychotic disorders or malingering and exaggeration in a client. This is a curious problem as personality and emotional function-

ing are as much aspects of neurological and neuropsychological functioning as are cognitive skills. One difficulty with personality is that it is much harder to measure effectively and to fully quantify. In addition, personality is much more complex to relate to specific neurological processes and locations, as many areas—including those involved in information processing and integration—are involved in determining personality. Personality is seen as being shaped more strongly by environment, although Luria (1966) and others would argue that cognitive skills, especially those which are more complex, are also heavily influenced by environment, but that the relationship between cognitive style and processes with environment may be less easily observed.

Personality also offers a challenge in that how one expresses personality traits and emotions may be more situationally determined. A client may be very aggressive when working with females, but very passive when working with males. The passivity with males may only be seen with males in positions of physical and/or administrative power rather than all males. An individual may be aggressive only when around others who encourage or model aggression, but otherwise be passive. A single number does not easily capture such variations in personality or the pathological dimensions typically captured in tests like the PAI or MMPI-2.

While research relating personality and aggression is common, research relating this to neuropsychological functioning is less common. Hartmann, Nørbech, and Grønnerød (2006) found significant differences between psychopathic violent offenders and non-psychopathic violent offenders suggesting more aggressive, cognitive, and interpersonal difficulties among psychopathic violent offenders, as measured by the Rorschach. Violent offenders scored significantly higher than university students and inpatient schizophrenics on aggressive measures.

Levi et al. (2010) assessed predatory, irritable, and nonviolent offenders, finding greater banger, aggression, and drug use in the violent group. They found greater elevations in subjects classified as irritable aggressors compared to subjects

classified as predatory aggressors. Most of the PAI subscales adequately discriminated between the aggressive and nonaggressive participants. Notably, the PAI Aggressive Attitude scale was the only measure that successfully discriminated among all three groups.

Edwards, Scott, Yarvis, Paizis, and Panizzon (2003) explored impulsiveness in spousal abusers in an attempt to demonstrate the relationship between impulsiveness, impulsive aggression, and physical violence. Impulsiveness and impulsive aggression had significant correlations with physical aggression. Impulsiveness and impulsive aggression were correlated with measures of Borderline Personality Disorder and Antisocial Personality Disorder. The violent and nonviolent groups differed on impulsive aggression and on Borderline Personality Disorder. A high-violence group had higher pathology scores on nearly all clinical scales of the Personality Assessment Inventory.

Valliant, Gristey, Potter, and Kosmyna (1999) examined risk factors in violent and nonviolent offenders. Results evidenced offenders with violent crimes were elevated on the Psychopathic Deviate, Paranoia, and Schizophrenia scale of the MMPI-2. Test age quotient scores were lower on the Porteus Maze task. They further demonstrated elevated scores on the Psychopathy Checklist Revised psychopathic orientation and violence risk of the Violence Risk Scale.

Barkataki et al. (2012) investigated individuals with antisocial personality disorder (APD) and violent and nonviolent individuals with a diagnosis of schizophrenia. Overall, four groups were looked at: (1) those with APD and a history of serious violence, (2) those with a diagnosis of schizophrenia and a history of violence, (3) those with a schizophrenia diagnosis and no history of violence, and (4) healthy controls. A neuropsychological battery designed to investigate intelligence, memory, executive functioning, processing, and attention was utilized. There were statistically significant group differences for performance and verbal IQ scores. PIQ and VIQ scores were lower in schizophrenia groups as compared to the controls and the APD group

performed lower than controls, but better than the violent schizophrenia group. Mean FSIQ scores were significantly higher for the APD than the Violent Schizophrenia (VS) group and both schizophrenia groups showed lower FSIQ scores than the control group.

On memory measures, those with antisocial personality disorder performed significantly better than the violent and nonviolent schizophrenia group on Logical Memory I and II. There were no differences between the APD and control groups, however the VS and nonviolent schizophrenia (NVS) groups performed significantly worse than controls. On executive functioning measures, the NVS and VS groups made more perseverative errors than the APD and control groups.

Performance on the Stroop processing score showed significant differences. Both the NVS and VS groups exhibited lower processing scores than the control group while APD scores were comparable to control and NVS groups. Performance on a measure of attention, the Continuous Performance Test, evidenced poorer performance for the NVS and VS groups as compared to controls. No significant differences were found between the APD and control group. Lastly, there were significant group differences on processing speed scores as the APD, NVS, and VS groups all showed significant impairment when compared to the control group. No significant differences were found on measures of motor speed.

This was an interesting study in its attempt to relate violence, personality, and neuropsychological measures. Unfortunately, the test battery was limited and did not include a wide range of executive measures. A reliance on the Wechsler tests is very traditional but does not always address the necessary questions. This is even more limited when the focus is on index scores rather than subtest scores. Also, while schizophrenia is a dimension of personality pathology, it is a very broad group which includes individuals with a wide range of neurobiological etiologies and a wide range of neuroradiological abnormalities. As a result, generalization of results can be very difficult.

## Malingering

Malingering and exaggeration is an important and necessary dimension of any forensic case in which a neurological or psychiatric pathology is claimed by a client or their attorney. Such exams should rely on multiple measures of malingering rather than single measures as was often done in the past. It would be appropriate as well to include both embedded and stand-alone measures whenever possible as well as both verbal (such as the SIRS) as well as performance measures (such as the TOMM or MSVT). Research with individuals accused of extreme aggression is rare at present, although the authors have been impressed clinically at a very low rate of malingering in this population.

When looking at malingering, one must also be clear to recognize that malingering is a deliberate (conscious) attempt to mislead, not just a belief on the part of the client that they are very impaired which may elevate scores on tests like the MMPI-2. In some cases, the patient's distress may cause an overreaction to their situation leading to impairment across a wide variety of tests in a manner inconsistent with their actual potential. However, in cases like this, such performance is not deliberate and thus does not represent malingering but rather invalidity. This phenomenon is seen more frequently in civil rather than criminal cases, but must be considered when examining individuals in these cases,

Myers, Hall, and Tolou-Shams (2013) researched the prevalence and assessment of malingering in homicide defendants. Researchers utilized the Mini-Mental State Examination (MMSE) and the Rey 15-Item Memory Test (FIT). Results demonstrated a malingering rate of 17% within the sample. In attempting to determine the worth of utilizing the MMSE and FIT, it was found that MMSE and FIT scores were highly correlated. However, scores on these tasks were only able to identify two-thirds and one-half of the malingering cases. Interestingly, the MMSE proved to better detect malingering than the FIT. This is surprising as the MMSE is traditionally a bedside measure of cognition, not a malingering test. It was able to identify two-thirds of the malingering cases. Overall, there

was no significant advantage to utilizing both tasks together to aid in the detection of malingering.

## Miscellaneous

Jovanovic, Novakovic, Salamadić, Petrovic, and Maric (2012) examined inmates convicted of homicidal and non-homicide acts to determine if there was a significant difference in intelligence between the two groups. The intelligence of homicide inmates was 97.4 and non-homicide inmates was 94.09. With regard to Verbal intellectual ability, the homicide inmates was 91.22, and non-homicide inmates was 91.10. Nonverbal or manipulative IQs were found to be average within both groups.

Langevin and Cunroe (2013) evaluated a sample of 1533 sex offenders (based on files from 1966 to 2009) to determine if a psychological profile of sex offenders using weapons in their crimes existed. Results determined that among offenders using a weapon, the most frequently used weapon was a knife (50.1%) followed by firearms (25.2%), other objects, such as bats (29.1%), and unspecified (9.7%). They found that those using weapons were significantly less educated, were more frequently placed in special education, and were less intelligent. Weapons users had twice as many learning disorders. Significantly more weapon users had been rendered unconscious in the past.

Levi et al. (2010) set out to classify offenders into predatory, irritable, and nonviolent offenders. They hypothesized that scores on personality and executive functioning measures would aid in differentiating violent from non-violent offenders. Eighty-nine male inmates were voluntarily recruited from a Correctional Institute. Statistical procedures did not find a significant difference between the two violent groups on age, education, or IQ. Significant differences were found in that the nonaggressive participants were older, had higher education, and scored significantly higher on IQ than the aggression groups.

The authors used discriminant analyses, based on test results, to differentiate all violent offenders

from nonviolent offenders and selected and retained five variables: Letter Fluency, IVA Full Scale Attention Quotient, TCI Cooperativeness Scale, STAXI-II Trait Anger, and Block 5 from the IGT. The discriminant analysis, based on the aforementioned variables, was able to classify 84.2% of the aggressive participants and 73.3% of the nonaggressive participants, leading to an overall success rate of 80.5%. A second discriminate analysis was utilized in an attempt to discriminate between predatory and irritable aggressors. This included six variables: PAI Drug Scale, PAI Aggressive Attitudes scale, PAI Physical Aggression scale, IVA Full Scale Attention, and STAXI-II Trait Anger, which allowed for a classification success rate of 78.1% of irritable offenders, 68% of predatory offenders, and an overall classification success rate of 73.7%. The study concluded that discrimination between these offender types could be successfully negotiated with a selected battery of neuropsychological tests.

Baker and Ireland (2007) investigated the association between dyslexia, impulsivity, self-esteem, and executive functioning within offender and non-offender samples. Results indicated that offenders were more likely to exhibit dyslexic traits than non-offenders, with violent offenders exhibiting significantly more traits than non-violent offenders. Similarly, offenders performed poorer on executive functioning tasks, but no differences were found on a measure of impulsivity. Overall, dyslexic traits proved to predict offenders, where self-esteem, executive functioning, and impulsivity did not.

## Discussion

While the research findings are inconsistent, an overall look at the findings and the neurobiological findings clearly support the concept that neuropsychological factors and injuries can increase the likelihood of violence. However, it is equally clear that this not a one-on-one relationship between any particular injury or deficit and violence, with these deficits only enhancing the likelihood of violent behaviors. Understanding what this complex

relationship requires an understanding not only of brain processes but also how they interact with environmental and experiential variables.

## Organization of the Brain

Understanding the human brain requires an appreciation of the interaction between the more basic parts of the brain we share with many other animals along with an understanding of those changes in the brain, which makes the human brain unique. For these purposes, the brain can be divided into three basic units (Luria, 1966). These units include the older and more basic areas of the subcortical brain, the posterior areas of the neocortex which are responsible for understanding language and perceptual functions in general, and the anterior areas of the neocortex responsible for motor functions (including motor speech) and the prefrontal lobes responsible for higher levels of executive functions. These units do not work independently, but rather, rely on intensive intercommunication and intercooperation.

There has been extensive focus on the functions of the first unit, since this represents the areas of the brain, which clearly are responsible for aggressive behavior in lower animals. The first unit is responsible for basic attentional, memory, and focusing cognitive abilities, as well as basic temperament and the "fight or flight" reactions responsible for survival and strongly related to all forms of aggression. Aggression can biologically be regarded as a survival and protective response. Structures, such as the amygdala and the limbic emotional system, monitor the world for threats, which need to be responded to for the organism to survive and to succeed when faced with external competition. People are born with inherently different levels of a tendency towards outward aggression or avoidance based on genetic history, which can be seen early on in infants and children whose response to the same stimuli may be inherently different, as are levels of activity, sleep patterns, competitive motivation, and general temperament.

In most cases, we all fall within the normal curve for levels of aggression and tendencies to respond externally to environmental stimuli. This, in turn, can be modified by other neurobiological factors (such as the amount of testosterone available which increases aggression) and by the environment: environments which are more supportive and protective may lead to less observable aggression while those in which the child is placed under stress or in extreme cases threatened with an inability to survive, aggressive impulses will be exaggerated. In other cases, we use social learning to either encourage and reward aggression and competition or we use social learning to emphasize cooperation and sublimating aggressive instincts. Aggression can be channeled into competition in sports or other activities, or it can be channeled into passive-aggressive activities where aggression is present but less obvious. There can be a continual conflict psychologically between aggression/survival/competition instincts and needs for social contact, support, and involvement.

While most of us fall within the normal range for these abilities, there are those born with more extreme tendencies towards aggression or towards withdrawal on the other extreme. Even in extreme cases, however, the environment can still impact the level and expression of aggression so that it can be expressed in more socially acceptable ways. Moreover, the more extreme the neurobiological substrate of aggression, the more the environment must make a greater effort to modify the individual: an individual not prone towards aggressive responses may remain unaggressive even when faced with a mildly adverse environment, while the high aggression child may react with extreme aggression in the same setting. This interactive effect means that the same environment is not ideal for all individuals: the more aggressive individual needs a calming and supportive environment; if the environment pushes aggression or competition at all, these individuals may become extreme. The less aggressive individual may blossom in such an environment, moving them to a balance of aggression and cooperation.

It should be mentioned that aggression per se is not bad. Aggression in many forms is as noted necessary for survival and for overcoming environmental stressors and barriers. Aggression in a milder form is simply competition to win or to do well, whether at sports, academics, socially or vocationally, which can lead to great success. A total lack of aggression would lead to passivity, dependence, and an inability to deal with normal challenges. At both extremes, these tendencies can lead to socially inappropriate behavior and to mental disorders.

The goal is always for a balance in humans; rarely do we see extreme violence in individuals, which is simply biological in nature or automatic as we see in animal models. Aggression in humans is a more complex phenomenon, which represents an interplay between the basic biology of aggression along with the interaction of the environment and the neocortex, the more recently developed parts of the brain. The development of higher cortical centers has not changed the role of the first unit of the brain, but has added addional layers which are capable of controlling and inhibiting the functions of the lower areas of the brain, giving humans (and other social animals) the ability to restrict these fundamental impulses and to channel them in a way that animals with less brain development are unable to show. Thus, surgeries or injuries to the amygdala in animals may result in rage reactions, while the same lesions in humans rarely lead to the same results because of the control of the higher levels of the brain.

One of the most important functions of the neocortex is the development of the understanding of speech (the second unit of the brain) and the use of speech to regulate behavior and interact with others (the third unit of the brain). Speech not only allows communication between individuals, but equally important acts as what Luria (1966) calls the "second signaling system." Speech and verbal processes allow the higher areas of the brain to communicate, control, and inhibit other areas of the brain. Thus, even when we may feel threatened or the need for aggressive behavior at the level of the first unit of the brain, we can use reasoning (internal speech) to find alternate behaviors to outright aggression. Just

about everyone finds themselves in multiple situations in which the first instinct is aggression: the need to win, the feeling of being offended, direct injury, being cheated, being physically challenged, protection of others, and many other diverse situations. Two dogs may fight chasing a single ball to see who gets it; humans can follow rules to see who gets it without resulting to violence (although not always, as discussed later). We can be nearly killed by someone driving erratically, which can result in violence or we can use internal speech and reasoning processes to recognize that such violence may be inappropriate or we can channel the aggression into a verbal rather than physical assault.

Nearly all of these alternatives are based on the use of internal speech. Not surprisingly, individuals whose speech ability is limited as the result of injuries or genetics are less able to use these modifying skills. This has resulted in the common finding in the literature previously reviewed that individuals with low verbal IQ, learning deficits, or poor educational attainment are overrepresented among criminals charged and convicted of crimes of reactive violence. These crimes are those which are more impulsive and reflect little planning: the individuals becomes angry or afraid and reacts with violence for revenge or perceived protection. These crimes are unplanned and represent in most cases the inability of the neocortex to control impulses arising from the first unit of the brain quickly enough to stop an unnecessary act of violence or turning the impulse into a more socially acceptable response. When the verbal system is weak, this is more likely to occur given the right circumstances.

The presence of a verbal deficit does not mean that a person will be violent whether we are discussing severe or milder cases of violence. These reactive crimes depend upon the situation and the specific environment. For example, if one is angry after a car accident and has a gun, we may see the impulsive use of the gun. If there is no gun or other weapon, there may be only yelling curses and threats. If there is no weapon, there may be physical fights but not necessarily extreme violence. If the car accident never

occurs, there will be no fighting at all. Most of these events, which become crimes arise from a lack of inhibitory control combined with an unfortunate combination of circumstances.

The verbal system can lead to other forms of provocation, which are not physical, or the result of needs for survival or protection. These are situations where we feel angry and combative as a result of something people say: insults, verbal threats, and perceived insults due to poor reasoning. These additional provocations can lead to impulses towards violence, which may not be controlled in the presence of a weak second signaling system. This becomes especially serious when the higher areas of the brain act to cause negative emotional reactions even when there is no actual physical threat.

The second signaling system allows for the more sophisticated development of the brain in the tertiary frontal lobes, the most biologically complex area of the brain and the area which truly separates humans from other animals. This is the last area of the brain to develop with the major part of development occurring between the ages of 12 and 25. Cognitively, this area allows for more complex pattern analysis and a host of other important cognitive skills including flexibility, planning, evaluation, anticipation of consequences, empathy, insight, and similar skills at an advanced level. It also allows for greater inhibitory control over the other areas of the brain, allowing for a much greater control over lower level impulses or automatic behaviors.

Equally important, the tertiary frontal lobes allow for the development of internalized self-control rather than external control. External controls are those which are imposed on us because of our fear of the consequences of those behaviors. We do not commit crimes because we do not wish to go to jail, not because we see committing the crimes as wrong behavior. Pedophiliacs may restrict their behavior to looking at pictures and stories because they are afraid of the consequences of acting out on their impulses. In children as well as many adults, these external barriers control their behavior.

The frontal lobes allow for the internalization of these behavioral restrictions. Here we avoid

behaviors because they are wrong, not just because of the consequences. The externally controlled individual—when convinced they will not be caught—will go ahead with committing the theft or attacking a child. The internally controlled person will not commit the crime even when they are absolutely convinced that they cannot be caught. Unfortunately, far too many people limit their behavior based only on external issues rather than the development of internal controls. One interesting thing about this lack of internal controls is that it is unrelated to intelligence; a concept which better reflects the functions of the second unit of the brain. Indeed, the presence of high intelligence and a lack of internal controls can lead to multiple crimes, ranging from Ponzi schemes and other financial crimes, to murders for hire or murders for revenge, monetary gain, elimination of a rival, elimination of a spouse, or other forms of gain which are performed when the individual believes they cannot be caught. In such cases, their intelligence is used not in the service of ethics but rather to plan ways to avoid consequences.

The lack of internal controls can most obviously result from defects within the frontal lobe, but they can also arise from learning. Even when the frontal lobes are biologically intact, internal controls or ethical standards must be learned. In environments where one is taught to use others to maximize one's own gains, this does not occur. Even in environments which teach internal controls, the controls taught may not be prosocial: someone may be taught to take care of their own family, but allowed to use and manipulate others as necessary to obtain these goals. Thus, not all crimes are the result of any level of neurobiological dysfunction, even the most horrendous mass murders. Comprehensive evaluations must be employed to understand whether brain disorders play a role.

## Interference between the First and Third Units of the Brain

In the normal adult, the frontal lobes (the third unit of the brain) use the descending reticular activating system to control the lower emotional centers, allowing most of us as adults to control violent and other inappropriate emotional responses, which, in turn, allows us to live in highly social and crowded conditions better than other animals.

However, there is also an ascending reticular activating system, which extends from the most basic areas of the brain into all areas of the cortex. This system allows for differential arousal of different areas of the brain when necessary to respond to internal and external demands, as well as the ability to decrease arousal to relax and initiate sleep. While this system is essential to normal behavior, it can fail in multiple ways. In some cases, emotional and arousal issues in the primitive areas of the brain cause over-arousal of the frontotemporal lobes which is perceived as anxiety or danger. When these factors are extreme, individuals may suffer from the most extreme psychological disorders. In milder cases, the individual can function well except under stress where the over-arousal interferes with the functioning of the higher levels of the brain, resulting in what is essentially a regression to the behavior of a child or adolescent rather than an adult. These patterns of frontal–temporal dysfunction arise without any actual damage to those areas. When there is damage to the frontal–temporal areas, the impact of this phenomenon is exaggerated and magnified. In either case, problems in basic attention, arousal, or impulsivity may be evident at an early age.

In other cases, the damage is not to the more fundamental areas of the brain but only higher cortical levels. In such cases, early development may be normal as the frontal–temporal levels do not develop the ability to significantly control lower levels until adolescence. When the ability to control is developed by a damaged frontal–temporal area, then there may be a decrease in emotional control as the dysfunctional area takes control of the brain. In such cases, there will often be later onsets of dysfunctional behavior. These individuals will frequently never show any deficits in the basic attentional skills.

For example, the studies referenced earlier about adolescents convicted of serious aggression clearly have dysfunction associated with

multiple areas of the brain at an early age. They develop not only aggression but many other maladaptive patterns. However, it remains important to recognize that not all have brain injury. In many cases, we are dealing with individuals whose problems can be traced at least in part to severe environmental issues. We must, however, recognize that many individuals from the same environment do not develop psychiatric or criminal behavior. It appears likely that the presence of neuropsychological factors aids in predisposing these individuals to being unable to handle the demands of the environment. In such cases, we would expect the dysfunction to be in the more primitive areas of the brain, which have the greatest influence on childhood development.

Ultimately, in all individuals, there is likely a balancing issue between neurocognitive and emotional resources and stability and the stressors as experienced by the individual. The greater the available resources, the more stressors, which can be tolerated, although this likely has a temporal component: stressors, which are bunched together, are more likely to overwhelm resources than those which are spread out. Stressors over time may also reduce total available resources. In these analyses, the stressors are not only pressures from the environment, but pressures from medical conditions, substances, and those which are generated internally through attitude and misidentification.

Clearly, the presence of brain injury itself does not predict violence or provide an explanation of why someone committed violence without integrating neuropsychological data, environment, history, the circumstances of the crime, and other data relevant to the particular circumstances of an individual case. In court, it is often argued that since all people with brain injury or all people with frontal injuries do not commit murder or even violence, then there is no role for such injuries in explaining violence. Similarly, others have argued that simply because an individual has a brain injury as confirmed by a neuroradiological test or a neuropsychological test then that explains their violence. Both of these arguments are fallacious and in court simply act as a way of distracting the judge or jury from the more funda-

mental and important issues which underlie any given case. It is essential that neuropsychologists do not support such arguments for whatever side they represent as this allows these fallacies to be taken seriously.

## Drugs

Another issue is the impact of drugs, alcohol, and other bioactive substances in general on the function of the brain. This clearly includes both street drugs as well as prescribed medications. Some drugs may accentuate emotional reactions, making the impulses arising from the subcortical areas extremely powerful, overwhelming even the normal and well-developed frontal lobe. Other drugs may impair the functioning of the frontal lobes, allowing more impulsive behavior which is not supervised or inhibited by the higher cortical areas of the brain. Such individuals will unquestionably appear to have acute symptoms of brain injury, but they will not necessarily show any impairment when withdrawn from the drugs.

The impact of substances will however be greater in those with preexisting brain disorders, even though any damage seen may not reflect the effects of the drugs when they are not taking the drugs. In one study we conducted, we found evidence of verbal damage in young adults with long histories of drug involvement; however, inspection of their school records showed that these verbal problems preexisted their first drug use. In such cases, the weak verbal skills may have led to frustration at school and poor controls sue to a weak second signaling system which in turn was the cause rather than the effect of the drug use.

## Designing a Neuropsychological Test Battery

Comprehensive assessment of the functions described above is required in any case where neuropsychological factors are considered a potential cause. The first and most fundamental issue of any examination is not the testing but rather the history. In capital cases as well as other cases, history

should be gathered from multiple sources. While the need to work with the client is obvious, most murder suspects are poor historians for a wide variety of reasons. First, they simply may be exaggerating or ignoring events in their life or even be unaware of medical problems, head injuries, and other potentially significant issues.

The history must be taken in such a way as to become an integral part of a psychological formulation. Is there evidence that a disorder has existed throughout the individual's life? If we conclude this, however, we must be able to show that the client's behavior was truly affected by the disorder, rather again ignoring the absence of such behaviors. In some cases, the abnormal behaviors may be absent because the client had structure and the behavior appeared only after the death of a parent or the departure of a spouse. In cases with lifelong problems, it is usually not possible to identify specific etiologies. However, it is always useful to indicate a range of factors ranging from genetics and neonatal injuries to later head injuries which correspond with the known onset of problems which are supported by school records and other independent sources.

If the disorder has a later onset, it is often necessary to show previous behavior "within normal limits" as well as a clear single or multiple etiology for the case. Later onset cases generally need to be more specific about causes and to have more extensive neuroradiological support as discussed in the next section. The abnormal behavior should then develop from that point with appropriate independent support.

While attentional deficits rarely enter directly into formulations involved with intentional planned violence, assessment of attention is important in cases of reactive violence. Primary attentional disorders likely indicate subcortical frontal–temporal disorders while their absence points to a more cortical focus. They also are useful in correlating with claims of life long disorders such as ADHD or those arising from acquired brain injuries.

Intelligence tests are clearly among the most often given tests in forensic and murder evaluations. This arises from the early emphasis in the field on the diagnosis of mental retardation which was reinforced by the Supreme Court decision banning capital punishment in cases of mental retardation, those generally with Full Scale IQs below 70. While this was a landmark and important decision, it unfortunately placed far more emphasis on one score and missed the meaning of the broader context of the scores and the equally important contributions of other measures. Thus, while IQ tests should be included, interpretation should take into account far more than full scale IQ.

The inclusion of motor and sensory measures has generally been considered an integral part of the neuropsychological examination. This began with the outgrowth of neuropsychology from neurological and neurosurgical centers with large stroke and localized lesion populations where motor and sensory "hard" signs were considered the most reliable indicators of lesion localization, especially when compared with "softer" cognitive signs of impairment. While undoubtedly useful in such cases, they play a much lesser role in cases of aggression. To some degree, this is because individuals with significant motor and sensory problems are much less likely to successfully attack another individual and when that does occur, their deficits are obvious to everyone. In addition, such deficits rarely speak directly to the cognitive impairments which are the essence of the psychological formulation.

Memory is clearly an important evaluative category when doing neuropsychological rehabilitation, but again plays a lesser role in the evaluation of the aggressive individual. Traditional memory measures rarely enter into the ability of an individual to stand trial or into the understanding of how neuropsychologically a crime occurred. Although one can point to cases of clear dementia where this may be an exception, few serious violence cases are directed against individuals who have a likelihood of a dementia diagnosis. On the other hand, severe memory deficits in the presence of normal intelligence and attention can be indicators of temporal lobe dysfunction which can enter into a diagnostic workup.

Executive function tests are an absolutely necessary aspect of any evaluation of the severely aggressive individual and in capital murder cases. Most theories explaining violence involve the issues of impulse control, anticipation of consequences, planning, emotional control and organizational skills which are all aspects of executive functioning. Executive functions are difficult to measure well because they are not a single skill and often involve responses to stressors and emotions better evaluated by emotional and historical data than cognitive testing.

Evaluating executive skills is difficult not only because they represent such a wide range of individual specific abilities but also because of the concept of recapitulation (see Luria, 1966). Recapitulation is the basic concept that the neuropsychological and physiological underpinnings of cognition change as the brain matures and with interactions with the environment. For example, although a 3-year-old can be taught to read, the manner which the child reads—no matter who how well she reads—does not reflect the same cognitive or physiological processes as seen in the mature adult reader.

The role of personality measures to infer neuropsychological functioning faces the complex challenge of separating out emotional issues which may be due to neurological dysfunction and that due to environment and experience (although one may argue that such a separation is itself artificial as the two are so intertwined that arguments are reduced to the level of whether the chicken or the egg came first). Traditional personality tests are divided into objective and projective measures and both can be appropriately used in these examinations.

When the issue of psychopathy is raised in a formulation, the Hare Psychopathic Checklist (PCL-R) is considered the gold standard in terms of diagnosing the presence of psychopathy, an issue brought up in a larger number of cases involving severe violence. The PCL-R is completed ideally through a combination of clinical interview and a comprehensive records review. Because of the misuse of this term in court, the PCL-R should be administered by a skilled and practiced clinician in every case in which this issue is brought up.

The final area of evaluation in nearly every case is the issue of exaggeration or malingering, although the belief that this is very frequent is not really supported by the data. Tests or procedures for detecting this phenomenon can be contained within the test or may be freestanding tests. In addition, tests may be based on actual performance or based on an interview format. Freestanding tests of effort/malingering fall into two categories: performance based tests and question–answer tests. Early performance based tests like the Rey 15 item test have generally fallen out of general use because they are too simplistic and inaccurate. Most used today are the Test of Memory Malingering (TOMM) and the MSVT. Both are memory tests with the TOMM looking at visual memory and the MSVT at paired associate verbal memory. Both are designed to look more difficult than they are but are in reality quite simple.

In terms of question-answer tests, the gold standard for psychiatric malingering is the Structured Interview of Reported Symptoms (SIRS-2). The SIRS is at present the most reliable and valid of the tests which reflect genuineness of response sets insofar as psychiatric symptoms but is weaker with regard to cognitive feigning. The SIRS is also weak when a client is responding in a genuine manner in terms of being truthful when the client's view of the truth is distorted. Such individuals may show a normal SIRS (they are being genuine) when, in fact, they are providing misleading information. Such individuals are obviously not malingerers so the SIRS is accurate but one must not confuse being genuine with being correct.

Because none of the tests are perfect measures of effort or malingering, a combination of both within test and independent tests of effort are strongly recommended. This should include at a minimum the SIRS (not an abbreviated version in these cases) plus either the TOMM or MSVT or both along with using any embedded processes from other tests which are administered as part of a full battery.

## Summary

Including neuropsychological assessments in cases of violence can add substantially to an understanding of those personality and psychological factors which led to the violence. Such an understanding can yield useful insights for the criminal justice system as well as a better understanding of the likelihood of future violence by the individual. While there are no one to one correlations between any of these factors and a specific act of violence, a full understanding of the many factors involved generates as complete an understanding as currently possible, However, evaluations—to be effective—must be comprehensive and well thought out.

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# Alcohol, Drugs, and Crime

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## Introduction

There is a substantial body of research, beginning
in the 1950s that supports an association between
alcohol, drugs, and crime. Much of this research
has focused specifically on violent crime.
Research shows that either the perpetrator or the
victim, or both, is under the influence of drugs or
alcohol at the time of an offense or has used some
substance 24 h prior (e.g., Haggård-Grann,
Hallqvist, Långström, & Möller, 2006; Karberg
& James, 2005; Moore et al., 2008). From this, it
is easy to assume a direct causal link between

substance use and criminal activity, particularly
violent crime. However, the relationship is far
more complex.

One of the key complexities is that the rela-
tionship between substance use and violent crime
varies depending on the specific substance of con-
cern. The most convincing evidence for a causal
influence comes from research on acute alcohol
consumption (e.g., Boles & Miotto, 2003; Exum,
2006). For other substances, however, the associ-
ation between substance use and crime appears to
be the result of a combination of psychopharma-
cological, contextual, and other factors. Differing
effects also exist between violent crime and other
forms of crime, such as property or drug-related
crime (e.g., Mumola & Karberg, 2006).

A second area of complexity involves the
potential influence of mental illness. There is a
common perception that individuals with mental
illness are prone to violence. This perception
arises from the deficiencies in reasoning, percep-
tion, and functioning that often accompany men-
tal illness (Choe, Teplin, & Abram, 2008), facets
that may increase the likelihood of maladaptive
behavior, and subsequently violent and/or crimi-
nal behavior (Sacks et al., 2009). Data from the
criminal justice system show some support for
this as individuals with mental illness represent a
significant portion of people who are incarcer-
ated in the USA, and this number has tripled over
the past 30 years (Torrey, Kennard, Eslinger,
Lamb, & Pavle, 2010). Moreover, there is

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evidence to suggest that the comorbidity of substance use leads to a significant increase in risk for both aggressive behaviors and crime among those with mental illness (Van Dorn, Volavka, & Johnson, 2012).

The purpose of this chapter is to provide a comprehensive review of the empirical and theoretical literatures that examine the etiological associations between alcohol, drugs, and crime. Taking a critical approach, our review examines empirical associations between alcohol, drugs, and crime, along with explanatory models, and the impact of mental illness.

## Theoretical Models of the Role of Alcohol and Drugs in Crime

Researchers have offered various theoretical models to explain the association between alcohol/drugs and crime (e.g., Fagan, 1990; Goldstein, 1985; Walters, 2014a, 2014b). Most of the models focus specifically on violent crime rather than crime more generally. Although many of the models are not mutually exclusive, one can broadly distinguish them on a conceptual level between those focused on the psychopharmacological effects of substances, those focused on the interpersonal/social context of substance use, and those focused on predisposing factors which increase the likelihood of substance use and criminal behavior.

### The Psychopharmacological Model

Models focused on the psychopharmacological effects posit that the short or long-term ingestion of a specific substance affects certain neurotransmitters and associated brain regions, thereby increasing the risk for irrational, aggressive, and potentially criminal activity (Boles & Miotto, 2003). These models, which usually focus on the acute effects, suggest specific mediating variables involving attentional, perceptual, or memory processes that increase the likelihood of violence (see Kuhns & Clodfelter, 2009). Moreover, it is clear that whether these cognitive processes increase violence is conditional on person and situation characteristics. As early as 1972, Carpenter and Armenti observed that any effect of alcohol depended on the "mood of the occasion, … the personality of the subject, whether the subject is alone or with others … and so forth (p. 540)." One of the key moderators is the predisposition to aggressive and violent behavior. For such individuals, the acute effects of a substance on cognition may alter their already low threshold for enacting aggressive and violent behavior (Kuhns & Clodfelter, 2009).

There are also psychopharmacological implications that extend beyond the acute effects of a single substance. With respect to alcohol, there are clearly dose dependent effects (Duke, Giancola, Morris, Holt, & Gunn, 2011), along with effects that are moderated by tolerance (LaPlace, Chermack, & Taylor, 1994). Although not studied with respect to aggression, other substances also have dose dependent effects that depend upon the user's experience with the substance. Also, individuals may take several substances or the substances taken may contain varying amounts of the expected ingredient, as well as other psychoactive ingredients that are unknown to the user. All of these factors may impact the risk for criminal behavior. Moreover, low doses of some drugs, such as opiates or benzodiazepines, may have a pharmacologic impact of reducing violent behavior (Miczek et al., 1994; Pietras et al., 2005).

### The Interpersonal/Social Context of Substance Use Model

This model proposes that the relationship between crime and alcohol or drug use is driven by the social, cultural and contextual factors associated with acquiring and/or using the intoxicants. This model, which is a key element in Goldstein's Tripartite model (1985), is most relevant for illicit drugs and are acquired through illegal activities. In Goldstein's Economic Compulsive Model, a drug user may engage in criminal behavior with economic goals in mind, for example, to procure resources to support a

drug habit. Individuals who ordinarily do not commit crimes may be motivated to do so to acquire drugs in order to avoid withdrawal. Often, these crimes will be nonviolent in nature, such as robbery, burglary, and shoplifting, and focus more on providing the user with money for their next high (Powell, 2011). Another example is systemic violence, in which the criminal behavior, often violent, is part of a socio-cultural set of norms. In this case, the link between substances and crime arises in the distribution system and is considered a necessary tool to remain in business. Examples of systemic violence could be drug-related murders that function as retribution or to control a territory.

When considering alcohol, this model applies more to the availability of environments to consume alcohol and how these establishments may attract individuals with certain criminal proclivities, and create environments that are conducive to violence. For example, Gruenewald (2007) suggested that an increased density of bars breeds competition and efforts to cater to specific markets. As a result, some bars choose to target heavy drinkers or seedier elements of the neighborhood, resulting in increases of violence and crime in and around these establishments. Some research supports this idea (e.g., Quigley, Leonard, & Collins, 2003; Toomey et al., 2012). For example, Quigley et al. (2003) interviewed more than 300 men who were frequent bar patrons about their usual bar and classified the bar as violent vs nonviolent. Patrons attending violent bars scored higher on alcohol dependence and anger. Also, violent bars had characteristics that were more conducive to violence than nonviolent bars (noisier, more crowded, other illegal activities and have lower drink prices).

## The Common Factor Model

According to this model, there are certain individual characteristics or personality features that contribute independently to substance use and violence (Fagan, 1990). The most clearly delineated position in this regard views substance abuse and aggressive, antisocial behaviors as out-

growths from a general propensity for externalizing behavior that is characterized by impulsivity and irresponsibility (Krueger, Markon, Patrick, Benning, & Kramer, 2007). Despite substance use and aggression arising from this general propensity, both are also influenced by unique factors as well (Latzman & Vaidya, 2013). While the characteristics that result in increased substance use and/or the involvement in crime may be more trait-like, there may also be situations in which the individual features are more transitory and situational, such as marital stress or relationship problems, which could increase drug/alcohol use and separately lead to behaviors resulting in criminal activity (e.g., intimate partner violence).

## Epidemiological Studies of Alcohol and Drug Use and Crime

### Research on the Global Association of Alcohol/Drug Use and Crime

#### Offender Population Studies

Research concerning the epidemiology of drugs, alcohol, and crime often uses convenience samples of individuals in treatment or incarcerated offenders in prisons and jails. This research consistently finds that drug and alcohol use coincide with the commission of a crime (e.g., Office of National Drug Control Policy (ONDCP), 2010), and that this is consistent across nations (Payne & Gaffney, 2012). According to data collected in 2004 (Mumola & Karberg, 2006), 50% of federal inmates and 56% of state prison inmates reported drug use 1 month prior to the offense that led to incarceration. Approximately 50% of offenders met the criteria for drug dependence or abuse (53% of state prisoners and 45% of federal prisoners) (Mumola & Karberg, 2006). Similar rates of drug dependence/abuse (53%) were found among individuals in local jails (Karberg & James, 2005). When also considering alcohol abuse and dependence, this number rose to 68% of jail inmates. In addition, many offenders reported using drugs at the time of the offense (26% of federal inmates and 32% of state

inmates). According to a 2002 survey, the rates of drug use at the time of the offense were somewhat lower for individuals incarcerated in a jail-setting at 16.5% (Karberg & James, 2005).

Such high rates of substance use and substance use disorder among offender populations may suggest a strong relationship between drug/alcohol use and crime. However, the relationship is more complex. When comparing the rates of substance use, abuse, and dependence to the general population, there is a clear excess among incarcerated individuals. In the 2014 National Survey on Drug Use and Health (Hedden, 2015), 10% of individuals age 12 years and older in the USA used illicit drugs. Of these individuals, 8% met criteria for a substance use disorder (DSM-5; American Psychiatric Association, 2013). Even though these rates are much lower than the incarcerated population, a causative relationship cannot be assumed. Most individuals who use drugs or alcohol, or have a substance use disorder, do not commit any crimes, suggesting that other factors account for the criminal behavior. Moreover, controlling for other variables that differ between these populations reduces and sometimes eliminates prevalence differences in substance use and disorder (e.g., Zhang, Wieczorek, & Welte, 1997).

Another important consideration is that those offenders who are caught and convicted are not necessarily representative of all individuals committing crimes. For example, it is well known that a large proportion of violence never comes to the attention of the police and if it does, it does not always result in an arrest (Kuhns & Clodfelter, 2009). Acute alcohol or drug intoxication may increase probability of apprehension, arrest, and conviction. However, the research is equivocal in this regard. Both Feder (1998) and Robinson and Chandek (2000) examined police records and found that offenders who were using alcohol or drugs were not more likely to be arrested in domestic assault cases than non-using offenders. In contrast, Hoyle (1998) studied police calls for domestic violence in England and found that intoxicated men were more likely to be arrested than non-intoxicated men, largely because they were more belligerent with the police. Gondolf and McFerron (1989) examined intake interviews of women presenting at battered women's shelters and found that the women reported a greater likelihood of arrest if the batterer had "abused alcohol when physically abusive" (p. 432). Further, how individuals with chronic substance use may be treated differently by the court system and the ultimate outcome has not received very much empirical consideration. It may be that these individuals are less able to defend themselves in court or are viewed differently by the court or juries, resulting in a disproportionate amount of substance users becoming incarcerated.

## Gender Differences

Arrest records, victimization reports, and incarceration statistics continue to show lower rates of crime among women than among men (Kruttschnitt, 2013). Similarly, studies of aggressive behavior show lower aggression among women (Hyde, 2014). Moreover, rates of substance use disorders are also substantially lower among women (Goldstein, Smith, Dawson, & Grant, 2015). Despite these clear gender differences, the research regarding the differential association between alcohol/drug use and crime in women and men is less clear.

Men and women who are incarcerated show similar rates of substance use. For example, rates of substance use in the month prior to the offense are similar for males and females in both federal and state facilities. For drug dependence and abuse, women have higher rates than men (60% versus 53%). At the time of the offense, the type of substance used differed for men and women. In a jail population, women were more likely to be using drugs at the time of the offense (34%) than men (28%), but for alcohol, the opposite trend was observed, with more men using alcohol (34%) than women (22%) (Karberg & James, 2005). Similar disparities were evident for rates of alcohol versus drug abuse or dependence.

Studies that have specifically examined violent crimes provide somewhat conflicting results. It is clear that many violent women have alcohol use disorders. Eronen (1995) found that 31% of women who had committed a homicide had alcohol abuse or dependence while this occurred for <1% among women in the general population. In

addition, women who commit violent offenses tend to use more alcohol than those who commit property or drug-related crimes (Phillips, Nixon, & Pfefferbaum, 2002). In a sample of women who were either incarcerated or hospitalized for committing a violent crime in Finland, Weizmann-Henelius, Putkonen, Naukkarinen, and Eronen (2009) found that 80% of the women were intoxicated at the time of the crime and three quarters met criteria for substance abuse or dependence, which is higher than most studies of men. However, a recent meta-analysis of homicide offenders found that female offenders used alcohol at the time of the offense in 44% of the cases, while male offenders were positive in 49%, a difference that was not statistically significant.

## Drugs and Alcohol Use among Individuals with Mental Health Problems

Mental illness further complicates the relationship among drugs, alcohol, and crime. A US Department of Justice report found that that 56% of inmates in state prisons, 45% in federal prisons, and 64% in jail had mental health problems, (James & Glaze, 2006). For individuals with a mental health problem, the rates of substance use disorders are much higher than the rates for offenders without a mental health problem. For example, 74% offenders in a state prison with a mental health disorder also have a substance use disorder, while 56% of offenders without a mental health disorder had a substance use disorder. These high rates are consistent with what has been found in other offender populations with serious mental illness (e.g., Hartwell, 2004).

Despite the public assumption and scientific evidence that severe mental illness is associated with aggressive and violent behavior (Fazel, Långström, Hjern, Grann, & Lichtenstein, 2009), the association between mental health issues and violence is not entirely clear and there is a dearth of research on distinct patterns of violence among violence-prone subgroups of individuals with serious mental illness (Swanson et al., 2008). We do know that individuals diagnosed with severe mental disorders are significantly more likely to engage in assaultive behavior than people without

a mental illness (Walsh, Buchanan, & Fahy, 2002). Importantly, the violence risk increases threefold with the comorbidity of substance abuse or dependence (Swanson, 1994). However, we understand very little about the joint impact of specific mental illnesses and substance use disorders on violence.

## Drug and Alcohol Use by Type of Crime

Rates of drug and alcohol use have a clear association with crime; however, the association varies as a function of the type of crime. Differing rates of use are associated with violent offenses (e.g., homicide, sexual assault, robbery, and assault) versus property offenses (e.g., burglary, larceny/theft, motor vehicle theft, and fraud). Regarding inmates in state correctional facilities, rates of drug use both at the time of the offense and 1 month prior are generally higher for property offenses (38.5% and 64%) compared to violent offenses (27.7% and 49.6%), with the exception of robbery (40.7% and 66.6%) (Mumola & Karberg, 2006). Again, this trend is consistent with data collected from individuals in jails, with 22% using drugs prior to violent offenses and 32% for property offenses (Karberg & James, 2005). The opposite trend emerges for inmates in federal facilities, with drug use more associated with violent offenses versus property offenses. Unlike drug use, violent offenders are more likely to have used alcohol at the time of the offense (37.6%) than property offenders (28.5%) in jail inmates. This finding is consistent with research examining rates of alcohol use among adolescence and young adults (Popovici, Homer, Fang, & French, 2012) and in women (Weizmann-Henelius et al., 2009).

## General Population Studies

There have been few studies regarding the incidence of crime, including violent crime, in the general population. Zhang et al. (1997) examined the chronic and acute effects of alcohol on 625 male youth from the Buffalo, New York area. Adolescents who consumed alcohol before an offense and used more alcohol than average were the most likely to engage in assault. However, when examined over time, the influence of alcohol

use was conditional, that is, relationships between deviant attitudes, levels of aggression and hostility, and the likelihood of committing assault were higher among heavier drinkers, suggesting that alcohol acted as a moderator, increasing the probability of violence among individuals with personality traits associated with aggressive behavior.

Most studies examining drugs, alcohol, and crime focus on adult offender populations. Extrapolating results found among adult populations to adolescents may lead to false conclusions about how the relationship may manifest in a younger population. Further, research using adolescents may help shed light on how patterns between substances and crime may develop and manifest later on as adults. The National Longitudinal Study of Adolescent Health (Add Health) included a nationally representative sample of adolescents from grade 7 to 12 and followed these individuals across four subsequent waves spanning 13 years (Popovici et al., 2012). The study designs employed important controls for individual characteristics that may have increased the association between alcohol and crime in other studies. Alcohol consumption not only had differing effects based on the type of crime, but increasing frequencies of use was associated with greater risk for commission of crime. Alcohol was more associated with property crimes versus predatory crimes, though the probability of someone committing either exponentially increased as someone binge drank monthly to multiple times per week (Popovici et al., 2012). While the association was not as strong for women, the same trend was evident.

## Event-Based Studies

Research focused on the self-reported experience of incarcerated offenders has obvious limitations. In particular, the retrospective report of alcohol and drug use at or near the time of the criminal act may be imprecise and inaccurate, as well as self-serving. A more exacting approach would assess the degree of substance intoxication prior to the event. However, scant research exists regarding substance use in temporal proximity to the criminal act.

Perhaps the closest approximation of this is provided by the National Institute of Justice's Arrestee Drug Abuse Monitoring Program II (ADAM II) (ONDCP, 2010). Across ten sites, new male arrestees entering the system through local jails, mostly urban, or police stations have been asked to voluntarily agree to an interview and urinalysis. More than 85% agree to the interview or to the urinalysis, and as of 2010, 71% tested positive for any drug and 22% were tested positive for multiple drugs (ONDCP, 2010). However, because drugs are detectable in the human body from days to weeks after use, a positive test may not indicate that the arrestee was "under the influence" at the time of the crime. As a result, this data does not provide insight into the potential acute effects of drugs.

In a very innovative study, McClelland and Teplin (2001) had trained observers ride along with police and catalog over 1200 police-citizen encounters. The observers rated the alcohol use/intoxication of the victims and suspects according to their behavior, whether the incident took place in a bar, whether witnesses reported that the victim or suspect had been drinking. Using nonviolent crimes as a comparison, alcohol was more than twice as likely to be involved in "violent crime and sexual assault" and in "spousal abuse." This impact of alcohol was apparent both for suspects and for victims; that is, relative to nonviolent crime, alcohol use by the victim increased the likelihood of the crime being violent, and alcohol use by the suspect increased the likelihood of the crime being violent. Although analyses were not conducted, alcohol was present in 3% of victims of nonviolent crimes, 6% of victims of spouse abuse, and 15% of violent crime and sexual assault. In contrast, alcohol was present in 16% of suspects in nonviolent crime, but 25% of suspects in spouse abuse, and 26% of suspects in violent crime and sexual assault, suggesting that alcohol plays a role in the suspects of violent crime and spouse abuse, but alcohol may be less relevant in the victims of spouse abuse.

## Offender Reports of Alcohol/Drug Use at the Time of the Crime

Notwithstanding the inherent limitations, self-report of substance use by offenders provides a temporally relevant perspective of the link between

substance use and crime. In one of the larger studies, Felson and Staff (2010) examined the extent and degree of alcohol intoxication for different offenses among 14,000 state and 4,000 federal prison inmates. They used a retrospective report of the amount of alcohol consumed, body weight, gender, and hours spent drinking to estimate blood alcohol concentration at the time of the crime. Variables such as history of criminal activity, alcohol use within the last year prior to the offense, location of the offense, and intoxication of the victim were used as statistical controls. Compared to drug offenses and property offenses (robbery, burglary, and theft), intoxicated individuals were much more likely to commit sexual assault, physical assault, and homicide, with rates four times higher than drug offenses for homicide and assault. Drug-related offenders were more likely to be using drugs at the time of the offense, compared to violent and property offenses.

An important variable in this study concerned the offender's report of substance use by the victim at the time of the offense, at a rate of 39% (Felson & Staff, 2010). Concerning alcohol, victims were most likely to be consuming alcohol for homicide and physical assault. When controlling for this variable, the influence of offender alcohol intoxication on homicide and physical assault was substantially reduced, though was unchanged for sexual assault. Felson and Staff (2010) concluded that the consumption of alcohol was associated with "dispute-related violence than predatory violence in part because these offenses also tend to involve intoxicated victims" (p. 1352). Even when offenders drank in moderation (under the legal driving limit), there remained a link between alcohol use and homicide and physical assault.

## Victim Reports of Perpetrator's Alcohol/Substance Use

Reports from the victims of crime provide an alternative means to evaluate the presence of alcohol and drugs at the time of the offense. Ample research exists regarding victim's report of the offender's drug or alcohol use during an offense, though there are obvious limitations. Often times,

victims do not know everything an offender may have taken prior to committing a crime or their degree of intoxication. At other times, particularly when the offender is unknown to the victim, they may not know whether the offender had taken a substance prior to the offense. Given the effects violent crime may have on a victim, relying on victim self-report of offender substance use should be viewed with caution. In addition, sometimes the victim was using substances at the time of the offense. Moreover, particularly in instances of assault, the difference between someone becoming a victim versus an offender is degree of intoxication at the time of violence. That is, if someone is too intoxicated, this may actually compromise their ability to adequately follow through with an intended violent act. Regardless of these concerns, victim reports provide a valuable perspective differing from the report of the perpetrator.

One source of victim reports is the Bureau of Justice Statistics National Crime Victimization, which gathers information about victims' perceptions of offenders' substance use at the time of the crime (Rand, 2008). Figures are most recently available for 2008, where 24% of victims believed that their perpetrator was using drugs or alcohol at the time of the crime, though rates for rape or sexual assault at 30% were markedly higher. Individual reported rates for violent crime were as follows: 15% for alcohol, 4% for drugs, and 4% indicated both. In many instances, the victim did not know if the offender was under the influence.

Examination of the victimization experience of college students also finds high rates of perceived offender substance use (Hart, 2003). In the Bureau of Justice Statistics 1995–2002 analysis of Violent Victimization of College Students, 41% of victims reported that offenders were using drugs or alcohol at the time of the offense. Rates for rape and sexual assault were similar, but compared to general violence crime, more victims knew that the perpetrator was not using 38% versus 22%. Lowest rates of perceived substance use were for robbery at 25%, though it was also the crime that victims were most likely to be unsure about use (59%).

## Perpetrator and Victim Reports of Alcohol/Substance Use Prior to Marital Violence

Evidence from recent meta-analysis and review of epidemiologic data provide robust support for substances substantially influencing both the perpetration of intimate partner violence (IPV) and subsequent victimization across genders, though the effects of substances vary (Moore et al., 2008; Smith, Homish, Leonard, & Cornelius, 2012). There have been a number of event-based studies of occurrences of partner violence that have shown alcohol use as a proximal predictor. Studies have compared retrospective accounts of different types of events have found that alcohol is more likely to be consumed in episodes of partner violence than in verbal conflicts, and that this is the case for newlywed couples (Leonard & Quigley, 1999), couples with an alcoholic husband (Murphy, Winters, O'Farrell, Fals-Stewart, & Murphy, 2005), and couples with a substance-abusing wife (Kaufmann, O'Farrell, Murphy, Murphy, & Muchowksi, 2014). Among those in treatment for a substance use disorder, Chermack et al. (2010) found that acute cocaine use was associated with the occurrence of violence and injury of partners. Acute alcohol, although significant for overall violence, was not significantly associated with partner violence. Recently, research has used daily diary procedures to collect information regarding drinking and couple's behaviors. For example, Testa and Derrick (2014) asked each partner in the couple to report drinking and the couple's behaviors, both positive and aversive, for 56 days using interactive voice response technology. Alcohol use was associated with the perpetration of both physical and verbal aggression within 4 h of drinking among both men and women. Victimization was also associated with alcohol use. Across a variety of methodologies, it is clear that alcohol consumption is associated with the occurrence of partner violence and that it is temporally proximal, although research with respect to other substances is largely lacking.

## Studies of the Acute Influence of Specific Substances on Aggressive Behavior

Much of the literature associated with substances and crime focuses on violence. In light of this, we will explore research pertaining to the study of the acute use of substances on aggressive behavior. Much of this research is derived from experimental studies, although some is from event-based.

## Effects of Alcohol

Experimental studies of aggressive behavior involve laboratory tasks that serve as analogs to real-world aggression. Among these paradigms, the two most well represented are the Taylor Aggression Paradigm (TAP; cf Taylor & Leonard, 1983) and the teacher-learner task (Exum, 2006). In the TAP, participants are presented with a competitive situation where they are prompted to provide electrical shocks to, but also receive them from a competitor (although none exists; for review, see Taylor & Leonard, 1983; Taylor & Chermack, 1993; Taylor, 1993). In the teacher-learner paradigm, the participant serves as a "teacher" to an unseen "learner" (though there is none). The teacher provides feedback based on the learner's response, utilizing perceived shocks to the learner for wrong answers. While both of these paradigms have been criticized for failing to fully capture real-world conceptualizations of aggression (see Tedeschi & Quigley, 1996), others have provided support for the validity of them (see Giancola & Chermack, 1998).

A recent review of available meta-analysis for studies using these paradigms concluded that sufficient evidence exists to conclude that "alcohol had a causal influence on violent behavior" (Exum, 2006, p. 141), though the exact route of this mechanism remains controversial. However, the meta-analyses uniformly failed to show any increases in aggression from a placebo, while active doses of alcohol did lead to increased aggression, suggesting that some aspect of the

pharmacological effects of alcohol are responsible, rather than the perception that one had been drinking. Exum's review also suggested that alcohol's effect was moderated by affective and methodological factors (Exum, 2006). In experimental paradigms that elicited high levels of affective states including inhibitory conflict, provocation, and frustration, alcohol was more likely to result in increased aggression. Concerning methodological factors, aggression is increased when consuming alcohol for male participants, when the alcohol consists of distilled spirits, large amounts of alcohol, "victim retaliation is possible and … nonaggressive response options are absent." (Exum, 2006, p. 142). Based on the results of numerous experimental studies, the relationship between alcohol and aggression appears unequivocal, although this causal influence is neither necessary nor sufficient.

## Effects of Other Drugs

### Cannabis

Few studies appear to have examined the effects of exposure to the psychoactive ingredient in marijuana, delta-9-tetrahydrocannabinol (THC) in humans and those studies that do exist occurred decades ago. Using TAP designs, men exposed to moderate or high dosages of THC typically show less aggression than at low dosages, even when levels of provocation steadily increase (Myerscough & Taylor, 1985; Taylor et al., 1976). Using a different aggression paradigm, Cherek and Dougherty (1995) found that marijuana administration reduced aggression under high provocation, but had no impact under low provocation. In experimental paradigms creating social settings, THC administration was associated with decreased hostility levels (Salzman, Van der Kolk, & Shader, 1976).

Although these experimental findings suggest that marijuana reduced aggression, there is at least one event based study that suggests that marijuana is associated with an increased propensity for aggression. Recently, Ansell, Laws, Roche, and Sinha (2015) asked participants to report on daily use of marijuana via a smart phone application. Same day use of marijuana was associated with increased impulsivity, hostile behavior, and an increased tendency to perceive hostile intent in others. In this sample of individuals who used both alcohol and marijuana, these effects of marijuana were independent of alcohol, which was found to have no relationship with interpersonal violence for same day usage.

From an acute perspective, it is possible that withdrawal in chronic users might be associated with increased aggression. For example, Kouri, Pope, and Lukas (1999) found that among chronic marijuana users, increases in aggressive behavior were noted 3 and 7 days following onset of abstinence. Similar findings have been reported with respect to self-reported withdrawal. Using the National Epidemiologic Survey on Alcohol and Related Conditions, Smith, Homish, Leonard, and Collins (2013) found that reports of marijuana withdrawal in the past year were not associated with general violence, but were linked with current relational aggression, but only for individuals who had a history of aggression. They hypothesized that marijuana use may have suppressed aggressive tendencies for these individuals and when use terminated, their underlying propensity to aggress reemerged.

### Opiates

Under conditions of acute administration of opiates, multiple animal species and humans appear to show a decreased likelihood for violent behavior (Miczek et al., 1994). This result makes intuitive sense given the effects of heroin in increasing feelings of well-being and euphoria. The effects of withdrawal after chronic use of opiates appears to deviate depending on animal species, with some showing clear signs of increased aggressiveness (field mice and hamsters), to more mixed reactions of aggression and submission in rhesus monkeys. In humans, there are clear alterations in mood states associated with opiate withdrawal; however, Miczek et al. (1994) asserted that no evidence exists that supports this leading to violent behavior. The period of withdrawal after chronic opiate use may create a state of vulnerability toward exhibiting aggressive behavior in

response to provocation or instrumental aggression with the function to obtain more drugs. Considering the acute effects of opiates including heroin, no evidence exists that support an association with violence (Boles & Miotto, 2003; Parker & Auerhahn, 1998) or violent crime (Ball, Rosen, Flueck, & Nurco, 1982).

## Cocaine

Acute cocaine use may cause physiological states such as hyperawareness and hypervigilance (Kosten & Singha, 1999) that may contribute to aggression, and may cause "irritability and physical aggression" (Boles & Miotto, 2003, p. 167). However, there is also evidence reviewed by Spronk, van Wel, Ramaekers, and Verkes (2013) that acute cocaine increased inhibitory control, which should reduce aggression. However, in terms of experimental studies of cocaine and aggression, Licata, Taylor, Berman, and Cranston (1993) found that a high dose of cocaine led to increased aggression in the TAP. There are clearly many gaps in our understanding of cocaine. However, the limited experimental research and the available event-based research suggest that cocaine, and perhaps even more so, crack cocaine, can result in increased violence (Kleber, 1995; Pihl & Peterson, 1993). There have also been suggestions that the aggressive behavior potentially produced by acute cocaine ingestion may become compounded for those susceptible to experiencing psychotic symptoms upon use and particularly for individuals who already have a psychotic disorder (Roth, 1994).

## Amphetamines and Methamphetamines

Boles and Miotto (2003) concluded that abundant research exists to substantiate a link between amphetamines with "pharmacological and systemic violence" (p. 167). Use of amphetamines have been found related to violence to a greater degree than other psychoactive drugs, having a strong link with crime (Kosten & Singha, 1999 as cited in Boles & Miotto, 2003). However, its connection to violence may better be associated with effects of chronic use and its probability of inducing psychotic-related symptoms. Miczek et al.

(1994) concluded that among several animal species, acute administration of amphetamines did not increase aggression, a result mirrored in humans using a TAP design, even at high doses (Beezley, Gantner, Bailey, & Taylor, 1987). Psychosis related to amphetamine use occurs at a much higher probability versus other stimulants due to increased lengths of activity in the body (Kosten & Singha, 1999 as cited in Boles & Miotto, 2003). Chronic use further increases the risk of developing psychosis, with associated paranoia, which may then explain the higher risk for aggressive behavior (Fischman & Haney, 1999).

## Benzodiazepines

Benzodiazepines are commonly prescribed drugs, often used in outpatient and inpatient psychiatric settings to treat anxiety, insomnia, and agitation (Ben-Porath & Taylor, 2002), although many people obtain them through illicit means. Many assume that through its sedating action, benzodiazepines should reduce aggression. Albrecht et al. (2014) concluded, in a recent review article, that while there is a paucity of research examining the relationship benzodiazepines may have with aggression, it has at least a moderate effect. Results should be viewed with caution as even though 70% of available research supported the connection, it was usually due to a very small amount of participants in any particular study showing aggressive behavior. For example, in a small study of eight participants, while seven showed decreased aggressiveness in response to administration of lorazepam, for unknown reasons one participant exhibited increased levels (Pietras et al., 2005). Despite these warnings, some preliminary conclusions may be drawn. The most studied benzodiazepines are Diazepam, which shows the strongest association with potentially producing aggression with five out of six experimental studies, and Alprazolam, with two experimental studies in Albrecht et al.'s review (2014). Unlike some drugs where a dosing effect appears evident, results are inconclusive for benzodiazepines, with findings showing increases in aggression with acute and chronic administration. However,

there appears a greater risk when considering long acting benzodiazepines such as Diazepam versus short acting. For example, Diazepam may carry the greatest risk of producing aggressive responses at acute high doses and continued high doses following chronic administration.

As with many of the drugs reviewed here, the contribution of trait-level personality features cannot be ignored, although much of the existing research has methodological limitations that preclude drawing any definitive conclusions (Albrecht et al., 2014). Some link does seem apparent for Diazepam, with individuals showing a low degree of trait anxiety (Wilkinson, 1985) and high degrees of trait hostility (Cherek & Lane, 1999) showing greater likelihood to become aggressive when taking the drug. Ben-Porath and Taylor (2002) found participants with the highest degree of character-related hostility, coupled with the highest doses of Diazepam exhibiting the most aggression, compared to placebo. Differences between the moderate and no hostility individuals compared to placebo was negligible. For individuals with aggressive traits, the disinhibiting effects of benzodiazepines may act as a catalyst for producing aggression, much the same way alcohol does (Ben-Porath & Taylor, 2002).

Beyond the potential ties between benzodiazepines and aggression, its relation to crime is unclear. Most studies examining drugs and crime do not appear to ask about acute or chronic benzodiazepine use. In one offender population, Diazepam was the drug most blamed for engaging in offending behavior; and when it was coupled with self-report alcohol use, it was significantly related to current incarceration for violent offending and having gun charges (Forsyth, Khan, & Mckinlay, 2011).

### Phencyclidine (PCP)

While it appears widely assumed that PCP is linked with violent behavior, the actual evidence supporting this belief is lacking (Boles & Miotto, 2003; Hoaken & Stewart, 2003; Parker & Auerhahn, 1998). Results of experimental work with animals found that PCP triggers aggression, but in only specific circumstances within a study,

leaving our ability to draw definitive conclusions impossible (Russell, Greenberg, & Segal, 1984; Wilmot, Vanderwende, & Spoerlein, 1987). As no human experimental studies exists (Boles & Miotto, 2003), our knowledge of PCP and aggressive behavior must largely be drawn from case studies and retrospective self-report. The effects of PCP appear mixed, sometimes producing a pleasant response for the users and other times quite bad outcomes, including violence and psychotic symptoms (Marrs-Simon, Weiler, Santangelo, Perry, & Leikin, 1988; Roth, 1994; Schnoll & Weaver, 1999). Overall, given such mixed and inconsistent results, our understanding of the actual pharmacological action of PCP is limited (Boles & Miotto, 2003).

In summary, limited conclusions can be drawn about any association PCP may have with crime. Its actual incidence among criminal offenders may be limited. Results of the most recently available Arrestee Drug Abuse Monitoring Program II (Office of National Drug Control Policy, 2010) found that incidence of PCP use through urinalysis testing was "almost nonexistent" (p. 36) across ten sites, except for Washington, DC and that was only 5% of arrestees.

## The Complexity of the Alcohol-Crime Relationship

The role of individual characteristics as a significant factor in the connection between alcohol use and crime cannot be ignored. These variables not only influence who may commit crime, including violence while intoxicated, but becomes a confounding factor in attempts to analyze the relationship between alcohol and eliciting criminal activity. Popovici et al. (2012) pointed out that failing to control for these individual characteristics creates biases that pollute findings in cross-sectional designs, resulting in overestimations regarding the link between alcohol and crime. This leads to questions considering a chicken or the egg paradigm, that is, does alcohol use cause crime or do individual traits lead to substance use (Macdonald, Erickson, Wells, Hathaway, &

Pakula, 2008)? In reality, the effects of alcohol work in concert with stable personality traits, having differing effects based on the type of crime committed (Popovici et al., 2012).

Given recent evidence, explaining the relationship between alcohol and criminality requires an approach that considers multiple sources of causality (Macdonald et al., 2008). Additive models, such as Walters' (2014a, 2014b) and Walters and Magaletta (2015) "worst of both worlds" hypothesis, work to marry these disparate views to posit that deviant behavior and substance use both derive from early risk factors, which compound on each other over time to increase risk for both behavior, leading to more chronic courses of criminal activity and substance use.

Despite the important and unique contribution of individual characteristics to the commission of crime, when studies control for these variables an association between alcohol and crime remains. In one large study examining adolescents, use of alcohol increased the chances of committing property crime more than other types of crime, including predatory (Popovici et al., 2012). Overall, the authors concluded that after removing the effects of spurious variables, consumption of larger portions of alcohol increased risk for "engaging in criminal activity and being the victim of predatory crime" (Popovici et al., 2012, p. 8). Other studies also find a link between frequency and dosage of alcohol use and violent behavior, establishing a temporal order between alcohol preceding the onset of behavior, burgeoning the evidence for a direct pharmacological influence on criminal activity (Boles & Miotto, 2003; Felson & Staff, 2010; Haggård-Grann et al., 2006; Lundholm, Haggård, Möller, Hallqvist, & Thiblin, 2013; Macdonald et al., 2008; Sacks et al., 2009).

Felson and Staff (2010) argued that if there is a causal pathway between alcohol use and crime, the influence of alcohol across different forms of criminal behavior should be uniform, although this is not what studies find. They hypothesize that alcohol becomes connected with certain types of crime due to the certain differentiating variables. For individuals who commit more serious crimes or ones involving more risk due to

confrontation, alcohol may serve as a disinhibiting factor, allowing someone to engage in a behavior that involves more social taboo or carries a greater risk. Alcohol may also significantly influence dispositional conflict where both individuals may be drinking and alcohol intoxication serves as a catalyst to escalate the situation, leading to more serious outcomes (e.g., homicide). Felson and Staff's (2010) large study examining 18,000 state and federal inmates found the most support for the confrontation hypothesis, some support for the dispute hypothesis, and no support for the seriousness hypothesis.

In other circumstances, given common beliefs in society about the perceived relationship between alcohol and commission of deviant behavior (Quigley & Leonard, 2006), some researchers suggest that offenders may use this common perception to provide an excuse for their criminal behavior as a means to avoid taking responsibility and being held accountable (Felson & Burchfield, 2004; Felson & Staff, 2010; Payne & Gaffney, 2012). This idea relates to the expectancy theory explaining the relationship between alcohol and aggressive behavior. In summary, this theory purports that aggressive behavior may arise while consuming alcohol due to the expectancy that alcohol causes aggression and that intoxication provides an allowable context to engage in behavior that contrasts with normal social expectations (known as the deviance-disavowal hypothesis; Quigley & Leonard, 2006). A recent review of the literature regarding expectancy theory concluded that limited evidence exists to confirm the validity of the deviance-disavowal hypothesis (Quigley & Leonard, 2006). Expectancies regarding aggressiveness while intoxicated appears to vary on circumstances that lead to "an alcohol cue and an aggressive cue together," which may override other expectations an individual may have concerning alcohol intoxication (p. 494). The influence of expectancy may also differ based on perspective. Results of recent research suggest that an individual's overarching beliefs about aggression and alcohol are less important than expectancies of how alcohol affects their own behavior (Kachadourian, Homish, Quigley, & Leonard, 2012).

## Conclusion

The relationship between alcohol, drugs, violence and crime is a highly complex and influenced by various factors, including demographics, gender, type of substance used, situational factors, personality characteristics, mental health problems, and the type of crime. As highlighted in the chapter, there is a tremendous amount of research in this area and a number of theoretical models have been proposed to provide an explanatory framework for the inter-relationship, including the Psychopharmacological Effects Model, the Social Context Model, and the Common Factors Models. These models can be broadly conceptualized as direct effect and indirect effect models, with the former referring to the ingestion of a substance facilitating an irrational and/or illegal act and the latter referring to intermediary mechanism between the ingestion of the substance and criminal behavior.

Large epidemiological studies have provided a wealth of knowledge about the association between alcohol, drugs, violence and crime. These studies have brought attention to the enormous problem substance use represent both in the community and in the criminal justice system. Event-based studies, in which the proximal effects are examined, have provided valuable information on the physiological, cognitive, and behavioral modifications that accompany intoxication and precede the criminal act. However, despite these studies, it is important to note that a diagnosis of a substance use disorder or the indication of a positive drug test does not necessarily mean that it was the substance use that *caused* the criminal offense. Other factors may also have contributed significantly.

For example, as pointed out in this chapter, mental illness adds substantial complexity to our understanding of the substance use/criminal behavior models. The prevalence of mental health problems among offenders is substantially higher than the prevalence in the general population. Even more troublesome is that among those offenders with mental health problems, the rate of substance use problems is much higher than among offenders without mental health concerns. However, despite these findings and the public

assumption mental illness is associated with violent and criminal behavior, the association between substance use, mental health issues and crime continues to be poorly understood.

In fact, there is a dearth of research examining the temporal association between the use of substances and violence/crime in individuals with mental illness. As a result, little is known about the direct causal relationship. It is also worth noting that the vast majority of individuals suffering from mental health problems do not have aggressive tendencies and will not act out violently (Stuart, 2003) or commit crimes. In fact, the severely mentally ill are significantly more likely to be victims of violence than they are to be perpetrators (Teplin, McClelland, Abram, & Weiner, 2005). To fully understand the causal relationship between alcohol and drugs on the one hand and violence and crime on the other hand, further study is warranted that thoroughly examines the preceding events and the substance use occurring prior to criminal behavior, and does so among individuals with comorbid substance use and mental illness.

In summary, a vast amount of resources has been allocated toward research that advance our understanding about how alcohol and drug use can lead to violence and criminal behavior. This large body of research has also informed clinical practice, such that treatment is more targeted and effective. However, as a note of caution, we are far from solving the substance use problem and it continues to be a major public concern. Clearly, we need to address the role of multiple substances and to utilize more sophisticated methodological approaches to this issue among at risk populations if we are to fully understand and address the role of alcohol and drugs in the development of crime and violent behavior.

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# Criminal Profiling Investigative Strategies for Arson Investigations

Ronald F. Tunkel

In 1986, the Bureau of Alcohol, Tobacco and Firearms (ATF) entered into a unique joint venture with the Federal Bureau of Investigation (FBI) by detailing a veteran special agent to what was then the Behavioral Science Unit (BSU), a component of the National Center for the Analysis of Violent Crime (NCAVC), located at the FBI Academy in Quantico, Virginia. The ATF agent began an intensive 9-month training program at the NCAVC in the relatively new discipline of Criminal Personality Profiling. Known as the NCAVC Police Fellowship Program, the training was offered to selected criminal investigators and detectives from throughout the United States and abroad (i.e., Canada, Australia, and the Netherlands), and certain US Federal law enforcement agencies. At the end of the training, the ATF agent remained at Quantico to provide criminal profiling services—primarily related to arson and bombing crimes—to ATF, the FBI, and other Federal, state, local, and international law enforcement agencies upon their request.

Additionally, this first agent and the ones who followed partnered with their FBI colleagues to conduct research into the behaviors and motivations of arson and bombing offenders, resulting in a number of foundational publications in the field (Sapp, Gary, Huff, & James, 1994; Sapp, Huff, Gary, & Icove, 1995; Sapp, Huff, Gary, Icove, & Horbert, 1994; Sapp, Huff, Gary, Icove, & James, 1993; Sapp, Huff, Kelm, & Tunkel, 2001). Thus began a partnership, little known in mainstream media, that has lasted over 30 years. The current author, an ATF Special Agent and FBI-certified Behavioral Analyst, was assigned to the BSU's successor, the Behavioral Analysis Unit (BAU)—for nearly 18 years.

In addition to investigative case consultations and research, BAU agents provide extensive training for national and international law enforcement agencies in the discipline of criminal personality profiling, also known by the more encompassing term, "criminal investigative analysis." Arson and bombing profilers developed a core course specifically related to arson and bombing behavioral analysis; a version of this class has been given to new personnel at the ATF National Academy since 2004. Accredited by the Federal Law Enforcement Training Center (FLETC) in early 2013, it provides students with a history of this program and then introduces them to the services offered by behavioral analysis units: crime analysis, unknown offender profiling, investigative strategies, interviewing/

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negotiation strategies, statement analysis, threat assessment, media strategies, prosecution and trial strategies, expert witness testimony, and geographic analysis. The course then describes the techniques and concepts of the discipline such as victimology; models of criminal behavior; methods for relating offense characteristics to an offender; target selection; crime scene factors that suggest *modus operandi*, ritual, and staging; temporal analysis; and, finally, arson motives. The training is designed to motivate agents at the outset of their careers to begin thinking *behaviorally*, and to consider applying behavioral analysis principles to their investigations.

So much has been written about the discipline of criminal personality profiling since its inception at the FBI Academy in the late 1970s. The early writings and publications introduced some of its fundamental concepts to the law enforcement community (Ault & Reese, 1980; Dietz, 1985; Douglas & Burgess, 1986; Douglas, Burgess, Burgess, & Ressler, 1992; Douglas & Munn, 1992; Geberth, 1983; Hazelwood, Ressler, Depue, & Douglas, 1995; Lanning & Hazelwood, 1988; Pinizzotto & Finkel, 1990; Rider, 1993). Many of these works were compiled into two NCAVC Publications: *Criminal Investigative Analysis—Sexual Homicide* (NCAVC, 1990) and *Deviant and Criminal Sexuality, 2nd Edition* (NCAVC, 1993).

The memoirs of some of the original luminaries in this field—John Douglas (Douglas & Olshaker, 1995), Robert Ressler (Ressler & Shachtman, 1992), Roy Hazelwood (Hazelwood & Michaud, 1999), and Roger Depue (Depue & Schindehette, 2005)—brought it to the attention of mainstream America and most probably fueled the public's apparent fascination with profiling. Kim Rossmo (2000) can be credited with the development of a parallel discipline, *geographic profiling*. Additional critical studies and memoirs followed (McCrary & Ramsland, 2003; Morton & McNamara, 2005; Neer, 2011; O'Toole, 2000; O'Toole & Bowman, 2011; Safarik, Jarvis, & Nussbaum, 2000). More recently, and significant to this effort, retired ATF profiler Kelm (2012a, 2012b, 2013) published a landmark, three-part series of peer-reviewed articles in *Fire and Arson*

*Investigator*, entitled "Behavioral Investigation of the Arsonist." They are recommended as companion pieces to this chapter.

In the area of criminal profiling it is difficult to clearly identify everyone who should be credited with originating or furthering an idea, thought, theory, or method of practice. The methods involved were created and underwent continuous development within a group/consultative framework. Many of the techniques originally were designed to be a part of a cold-case review of primarily serial sexual homicides and rapes—cases that had remained unsolved despite significant forensic and traditional investigative work—and subsequently evolved to a discipline that now is almost a first response to major violent or unusual crimes. It is fair to say criminal profiling has expanded exponentially over the last 30 years.

If you were to ask a conference of profilers to explain their discipline, most would probably agree that a crime scene reflects the personality of the offender and that profiling seems to work best when applied to serial crimes reflecting need-driven behaviors (e.g., serial arson, rape, and murder) and those where more emotional needs (e.g., power and anger expression) rather than material needs (e.g., money via fraud, theft, and arson-for-profit) are being met. Most profilers would also say that studying the crime scene behaviors of *modus operandi*, ritual, signature, and staging can help link crimes and hone the behavioral assessment of an unknown subject (UNSUB) to better understand his or her underlying motive(s). Most initially triage a crime scene on a continuum from "disorganized" to "organized" as a useful starting point to developing the personality portrait of the unknown offender (this is especially true with serial arson cases). The group would agree that a detailed study of the victim and his or her personality, lifestyle and habits is critical to understanding his or her interaction with the offender and ultimately why he or she was targeted. Finally, most would opine that techniques such as communications analyses, geographic analyses, and temporal analyses of offense behavior can suggest a great deal about an offender's schedule and

awareness space. Yet although we follow the same basic principles of this discipline, each of us imparts our own nuanced understanding of those principles onto the requested product, be it an unknown offender profile, an interview strategy, an investigative suggestion, etc., by drawing on our individual backgrounds, training, specific experiences, and specialties.

Although a profile—a list of biographical, personality, and behavioral traits of an unknown offender—is the product from which this discipline got its colloquial name, a far greater majority of the services we provide involve investigative suggestions—to include media and interviewing strategies—that often include *statement analysis* (discussed below). This chapter provides suggestions relevant specifically to arson investigations that have proven helpful during nearly 30 years of investigative experience. The goal is to provide the reader with a general sense of this work and its potential value to investigations, as well as suggest resources for further study. Although this chapter is arson-focused, the material herein may be applied to the broad spectrum of violent crimes.

One of the best examples of how criminal profiling assisted in an arson investigation occurred in late 1992 to early 1993 in the greater Seattle area. The city had been besieged by a serial arsonist; this individual initially set fire to small vacant structures but soon escalated to targeting occupied dwellings late at night, putting residents in mortal danger. In a 3-month period he set more than 70 fires. An Arson Task Force was established to bring all available resources to bear and an ATF profiler was assigned to the case. A profile was developed and delivered to the Task Force and, in a then-unusual tactic, was published along with several witness sketches of the suspect. At that time the number of fires attributed to the arsonist had reached more than 100. Within days an area resident called investigators and reported that he and his family were concerned the person depicted in the release was his son, Paul Keller. Guided by another onsite visit by ATF and FBI profilers, investigators arrested and successfully interviewed Keller (G. Gary, per-

sonal communications, June 2004, February 2016; Schwartz & Wise, 2000).

## Media Strategies

When the Arson Task Force released the suspect sketch and aspects of Paul Keller's behavioral profile to local media they set in motion events that ultimately would lead to his identification, arrest, and successful interrogation. This relatively little-known and rarely researched aspect of criminal profiling—the development of media strategies—has provided crucial assistance to law enforcement in a number of notorious cases of serial, violent offenders.

For example, the Christmas Day, 1956 publication of a psychological profile of New York City's so-called "Mad Bomber" led to the identification and arrest of George Metesky, a toolmaker living in Waterbury, Connecticut. Metesky's 16-year campaign of using improvised explosive devices to target libraries, theaters, and Consolidated Edison offices had terrorized the city of New York and resulted in at least ten injuries (Brussel, 1968). Another example of the strategic use of media involved the so-called "Unabomber," a serial killer who engaged in a 17-year bombing campaign. In 1996, at the behest of the FBI, the *New York Times* and *Washington Post* published the bomber's *Manifesto*. Theodore Kazynski's sister-in-law read the treatise, recognized the writing as likely that of her long-estranged brother-in-law, and notified authorities (Fitzgerald, 2004; J. Fitzgerald, personal communication, February 1997). Dennis Rader, the self-dubbed "BTK" (*Bind–Torture–Kill*) killer of ten victims, was tricked into sending a floppy disk to authorities after they engaged in a series of communications with him via a local newspaper. Although Rader had erased the disk, its critical metadata led to his identification and arrest (R. Morton, personal communication, May 2015).

Arson profilers frequently offer media strategies in unsolved serial or unusual arson cases, particularly those exhibiting a rich behavioral element to the crime scene, or those involving a homicide. Based primarily on anecdotal experience, but also drawing on research and success-

ful techniques related to interviewing witnesses and suspects, BAU agents have developed this profiling technique into somewhat of a *boutique* service.

Media strategies are based on a *three-pronged approach*. The first prong is communicating with witnesses, both those who are unaware of the value of the information they have, and those who have suspicions or actually know the value of their information but, for whatever reason, are hesitant to contact authorities. The second is communicating with the actual offender(s) in an effort to motivate him to take an action that can lead to his identification. The third is appealing to members of the public by providing them with behaviors and characteristics of the unknown suspect that may be observed, recognized, and reported.

## Communicating with Witnesses

In June 2003, a series of incendiary (set) fires were recognized occurring within the Prince George's County (Maryland) and District of Columbia borders. The arsonist was setting fire to occupied dwellings in the early morning hours. The ATF Laboratory conducted forensic analysis on evidence collected on the scenes of these fires and determined a device with very specific components had been utilized, a finding that suggested they were set by the same individual. Authorities formed a Task Force consisting of investigators from 15 agencies in the surrounding jurisdictions.

In the early morning of September 3, 2003, three brothers arrived at their residence in Washington, D.C. They encountered a male subject sitting on their doorstep; the man indicated he was looking for a friend. They engaged in a brief conversation with him and he departed, leaving behind a plastic bag containing what had become the serial arsonist's emblematic device—a plastic gallon-sized beverage container, filled with gasoline, with an improvised wick made of cloth. One of the brothers, oblivious to the evidentiary value of the items, threw the bag into the

street. The next morning they told their mother of the previous night's events and she scolded them for being unaware of the news about the fires and the potential relevance of the gasoline. The family called the police, who retrieved the bag; from the contents the Task Force was able to recover its first DNA evidence. This DNA later would link the unknown offender to four other crime scenes and lead to the identification and arrest of Thomas Sweat, a 59-year-old Washington, D.C. resident (personal communications, S. Fulkerson, T. Daley, & T. Patty, September 2005).

Although this case appears to offer an elementary example of a successful media strategy (i.e., increasing community awareness of a crime via a standard news broadcast), it is instructive on several levels. One aspect of its value is discussed here; another will appear later in the chapter under the section entitled *Communicating with the Offender*.

Criminals make mistakes. When an offender is engaged in *serial* criminal behavior, the probability of making a mistake in *predation* (i.e., hunting or attacking) may increase with each offense (it is often mentioned during behavioral consultations that a previous unsuccessful or thwarted attempt may have gone unnoticed or could have been innocently explained away). The initial concerns of an apartment dweller who walks in on a burglary in progress could be assuaged if the offender claims to be a maintenance worker in the wrong place. Or a wrongdoer discovered in a back alley or other secluded place may pretend to be sick or urinating. Specifically with serial arson, a set fire may have self-extinguished or failed to do what it was intended to; as a result, discoverers of the evidence may overlook it or attribute the ashes or blackened area to vandalism or an accident. These mistakes can offer rich evidence if they are later recognized and understood in their proper context. In the case of Thomas Sweat, the items found in the bag were promptly recognized for their case value; many such events, however, are not and remain unreported. One of the functions of a successful media strategy, therefore, is to jog witnesses' memories of these events and emphasize their importance.

The following is an example of a strategy that was offered on a serial arson case (the lines are numbered to facilitate comments that follow):

*1. We are now at over 80 suspected fires attributed to this offender. The majority of these*
*2. fires have been in the nighttime hours before midnight, occurring on all days of the week.*
*3. It is a near-certainty that you or someone you know may have encountered or*
*4. interrupted the arsonist around the time of an actual or planned fire. This subject might*
*5. have been known to you or presented himself as someone who belonged in the area. He*
*6. would have had to provide a plausible explanation as to why he was in a certain area at*
*7. night. It may have been as simple as you were out walking your dog and encountered*
*8. someone behind a vacant or abandoned building, and he provided an innocent-sounding*
*9. and believable excuse for being there. You might have pulled over at a stopped or*
*10. parked vehicle and offered assistance to the driver. You might have seen a vehicle*
*11. known to you traveling at a high rate of speed and wondered why the owner was driving*
*12. so fast. You may simply have gotten a bad feeling about someone trespassing, or a*
*13. situation encountered late at night. We trust the so-called "gut-feelings" of our citizens.*
*14. We ask the public to think back to any suspicious events such as these, which you have*
*15. since put out of your mind. Remember, these fires began around early November – after*
*16. Halloween, and when the leaves began falling.*

In their groundbreaking work, Fisher and Geiselman (1992) offer a format for effectively retrieving witness memories using a cognitive interview. Their technique has been taught to thousands of law enforcement officers throughout the United States and has been the subject of significant and ongoing empirical and academic review (Fisher & Geiselman, 2010; Fisher & Schreiber, 2007; Rivard, Fisher, Robertson, & Mueller, 2014). One of the hallmarks of the cognitive interview is the emphasis on orienting the subject back to the time and place of the event to enhance memory. Media strategies—particularly those intended to communicate with witnesses—are, in a sense, mass cognitive interviews, conducted remotely. Significant information can be gathered if investigators can enhance memory recall of witnesses via a long-distance method of print, broadcast, social media, websites, or any combination of these forms of communication.

On lines 1–2 and 15–16 of the statement above, the goal was to orient the witnesses back in time to the nights of the previous autumn. Halloween is a significant holiday in the USA, and while the average person might not remember what he or she was doing on October 29th (unless that date had some personal significance); they are more likely to remember what happened "around Halloween." The reference to falling leaves was designed to provide auditory, visual, and olfactory mnemonics.

Based on the assumption the offender likely made mistakes or encountered interruptions of some form during this series, lines 3–15 were intended to explain to the public how these mistakes may have presented themselves. Again, the goal was to get the public thinking and therefore remembering something they experienced, or knew that others ("*You or someone you know …*") experienced.

In this case, the media strategy had not yet been used when Virginia State Police (VSP) arrested Charlie Smith and his fiancée, Tonya Bundick, after they set the last of more than 60 fires. The offenders were caught as the result of the hard work and determination of the police, who dedicated more than 41,000 h to the investigation over a period of 5 months (Hesse, 2014). It should also be noted that a VSP Behavioral Scientist used Rossmo's (2000) geographic profiling technique to accurately predict the arsonists' rural residence location (to include the actual country lane)—within ¾ of a mile—in an area of offending 60 miles long by 12 miles wide. VSP and ATF profilers provided an interview strategy that was used with Smith.

Interestingly, a volunteer firefighter later recalled that "about midway through the fires she was driving home late at night and passed Charlie Smith on the road. Shortly after, her station got a call for a fire, and when she and the team headed out to fight that fire, she passed Charlie's truck again, this time heading in the opposite direction. She turned to the firefighter next to her and joked, 'Hey, Charlie must be the arsonist.' But they

were just a few blocks from his auto shop, and she knew he sometimes worked late on cars, and assumed that's what he was doing that night. She didn't give it a second thought" (Hesse, personal communication, November 2015).

## Communicating with the Offender

Communicating with an offender can be a risky endeavor. Investigators do not want to take an action that might motivate a violent subject to act out and victimize another human or successfully target another property. Thus, direct communication is typically considered only when the known offender or target is under intense surveillance and there is little risk of a fire getting out of hand or a human life being put in jeopardy.

At times the communication may be intended to mislead the offender. For example, if an arsonist has been targeting particular vehicle types, a media release could announce that police have increased surveillance in a certain area. In fact, investigators may park a decoy vehicle fitting the description of his previous targets in an area identified as within his hunting area (Rossmo, 2000). Again, both the target and the offender would have to be under intense surveillance for this to be advisable. More typically, when an attempt is made to communicate with the offender via the media, the goal is to get him to communicate back or cease offending.

Communication from offenders can provide investigators with rich forensic and behavioral evidence. Mailed communications can be sources of DNA or fingerprints, and it may be possible to identify the initial delivery site of the letter. Electronic communications can leave a cyber trail or provide valuable metadata for analysis. Communications and statement analysis can provide biographical and personality clues about the offender and can offer insight into his intentions and motivations (Fitzgerald, 2005; Miron & Douglas, 1979; Rugala & Fitzgerald, 2003; Simons & Tunkel, 2014; Smith, 2008; Smith & Shuy, 2002). This combination of forensic and behavioral evidence becomes the "workshop" for criminal profilers.

Profilers also take demographic variables, including race and ethnicity, into consideration. In the DC/VA/MD Serial Arson case, the perpetrator's profile suggested he was African-American. Arson is a violent crime, and violent crime tends to be intra-racial in nature. Nearly all of the victims of Thomas Sweat were African-American, as was the racial makeup of the area in which he offended—successfully and without detection—for years. Sweat had fit in to this area; no one noticed him as readily as they may have with a subject who was not African-American. Although the extant research indicates the majority of serial arsonists are Caucasian, those findings may be attributable to the fact the majority of the American public is Caucasian. Race appears to play no causal role in this type of offending; rather, the race of perpetrators may simply mirror the racial makeup of the population where they reside (Sapp, Huff, et al., 1994). Therefore, when attempting to offer an opinion as to a subject's race, arson profilers often examine the racial or ethnic makeup of the area where he is offending, based on the assumption he selected an area where he feels comfortable and is more likely to blend in.

It is often desirable to have one particular spokesperson as the public voice for media releases. In this case, the fire department Chief, who had become the head of the Arson Task Force, was the perfect official to deliver messages to both the public and the offender. Chief Ronald D. Blackwell had a quiet, dignified, yet commanding presence. He was a middle-aged African-American male who had risen through the ranks of the fire service; his thoughts, comments, and demeanor attested to a man worthy of respect and trust. Respect and trust are critical elements of establishing rapport during communications and interviews with victims and suspects.

One of the releases the Chief gave read as follows:

> *The Task Force would like the person responsible for these fires to contact us, either through our phone tip line, our post office box, or email address. From our understanding of individuals involved in this type of behavior, we know they*

*often desire to communicate a message to society at large. We want this person to know that we are a willing audience for that message. We hope he may be watching, or listening to this request. We feel we may understand him and can relate to him.*

*This firesetting may be a means for him to relieve stress or frustration caused by other people. This stress may be borne out of some type of anger or unwanted feeling of powerlessness. In a complex world, especially at this time, we can all understand what stress is. This individual may feel pain and anger more than the average person and therefore chose to relieve those feelings through fire setting. We understand.*

*It may be that this firesetting, which at first may have made him feel powerful, has become like a drug, the use of which may be getting out of control. That is understandable. This person may not have had the best of home lives growing up and is suffering now as an adult for it. He may himself have been victimized in his past. One way he can truly relieve his pain and regain control is to seek assistance with the pain and anger he is feeling. It may also be that this firesetting, even though it may cause him anxiety, may also have an exciting, if not thrilling, aspect to it. Again, we understand this and will not hold those feelings against him.*

*From our experience with these types of cases, we know that it is most probable that we will identify and apprehend this person. If he does choose to contact us first and help us understand him, it will go a long way in how he is dealt with by authorities. He may not realize how much he has the power to control his destiny and one first step in doing that is to contact people who understand him. We are also concerned that innocent people will continue to be in harm's way as a result of this firesetting. This concern extends to him as well. Accidents can happen to the best of us and we do not want to see him get hurt either.*

*So on behalf of the Task Force and the entire Fire Service community at large, we request that the person involved in these incidents contact us at the numbers or addresses listed below.*

In the first paragraph, the intent was to encourage the offender to contact authorities by whatever means most comfortable to him (phone, regular, or electronic mail). Most people have preferred methods of communication: older adults may still prefer to write or telephone; younger adults may prefer to text message. Obviously, an offender likely would want to anonymize his communications, and he might agree to communicate if officials suggest he use a form of contact he believes will protect his identity. This request was repeated in the last paragraph

before addresses and telephone numbers were provided. By providing multiple means of communication, investigators increase the odds the witness or suspect will contact them.

In the early 1990s a team of ATF agents and police officers known for their superior interviewing skills developed the Analytic Interviewing Course (AIC). The AIC was an intensive and widely popular program that trained interviewers to observe an interviewee's body language and eye movement while simultaneously incorporating these observations with his or her spoken words. The goal of the AIC was to train investigators to make a global assessment of an interviewee's truthfulness, determine areas of sensitivity in his statement, identify potential rapport-building and interrogation themes and strategies, and develop memory-enhancing cues. The AIC emphasized the necessity of detailed preparation for an interview and developing trust and rapport. The course drew heavily on Ekman's (1992) research on micro-expressions and detecting deception, Fisher and Geiselmann's (1992) memory enhancing techniques, and "Neuro-linguistic programming" (Bandler & Grinder, 1979; see Brooks, 1989). The course became somewhat of a multidisciplinary cobbling of anecdotal best practices of what was then cutting-edge theory and non-mainstream practice for law enforcement.

One of the rapport-building techniques in the course related to determining the preferred mode, or representational system, for how an individual typically processes information: visually, auditorily, or kinesthetically (Bandler & Grinder, 1979; Brooks, 1989; Sandoval & Adams, 2001). The basic idea is that individuals have a preferred or dominant representational system—seeing, hearing, or feeling—to understand, process, recall, and relate sensory information. Visual people think in visual terms, actually "see" pictures or thoughts go through their mind. Auditory people will "hear" their thoughts as they process them, play dialogues in their minds, and have internal dialogues within themselves. And kinesthetic people will "feel" what they are thinking, and tend to process information emotionally. It is believed that by communicating with a subject in

his or her preferred representational system, rapport and communication are enhanced.

Having found anecdotal value to these theories, we have incorporated the principles into interviewing and negotiation suggestions and, in the Sweat case, the media strategies. In the first paragraph of the release noted above, for example, the arsonist was an UNSUB; thus, his preferred representational system was unknown. Some assumptions could be made, however, since most serial arsonists are male and males tend to be visually dominant. Many arsonists report enjoying watching fires. Others, however, also relay enjoying the way their firesetting makes them feel—often describing it as a relief from stress. Still others may enjoy the sounds of the sirens, the chaos, and the fire, itself. So the lines, "We hope he may be *watching*, or *listening* to this request. We *feel* we may understand him and can relate to him," were crafted in an attempt to reach him through his preferred or dominant mode.

The second paragraph referenced the likely stress-reducing benefit of the firesetting and began sending the message that the investigators understood him—a core component to establishing rapport. The message also introduced the concept of *power*—the ultimate distillate of all seven identified arson motives: vandalism; excitement; revenge; crime concealment; profit; extremism; and mixed (Sapp, Huff, Gary, & Icove, 1999). This strategy was developed further in the third paragraph as we discussed the likely emotions he felt related to his life circumstances and his firesetting, as well as what might have been biographical factors of this unknown subject.

The message was designed to project a nonjudgmental front to the arsonist. It is difficult for human beings to admit something they feel others will think is weird or crazy, or something for which they fear they will be harshly judged. To lessen this anxiety we attempted to send the overall message that he was understood and that nothing he reported would cause investigators to think less of him.

The fourth paragraph was essentially the *pitch*: he likely would be caught, so things would go better for him if he came forward and cooperated. The intention was to convey that he had the *power* to control how things would go for him, and that authorities did not want to see anyone else hurt, including the arsonist himself. (This last point may help motivate reluctant witnesses to report information about someone whom they already suspect.)

The strategy did not achieve the desired goal—Thomas Sweat did not contact the authorities or surrender. However, there *may* have been a significant tangential benefit to the media release—the development of a type of "pre-rapport" that was established with Sweat. Upon his arrest, Sweat immediately began a month-long, fascinating series of confessions and debriefings with investigators, during which he admitted he set more than 350 fires over a period of 27 years. His fires claimed three lives (personal communications, S. Fulkerson, T. Daley, & T. Patty, September 2005). Several of his statements were of interest in relation to the media releases (personal communication, T. Daley, S. Fulkerson, & T. Patty, August 2005):

- "Most of the times, I was either depressed, stressed out from work, or feeling lonely and in another world."
- "I like to see what it does—what a fire can do …"
- "I like the excitement—first small to like this huge light and people running from fires."
- "It would release the stress and get rid of the depression; it would make me feel better."

After his initial confession, Sweat asked if he could apologize personally to Chief Blackwell—a request that was granted. It would appear a chord had been struck with Sweat through the media releases. They may have helped set the stage for what were truly excellent and highly successful interviews with Sweat by the investigating agents. However, what solved this case was the dogged determination of the Task Force investigators whose talents, skills, and experience ended the career of a serial arsonist/killer.

## Appealing to the Public

In late October, in a major Northwestern city, an UNSUB, utilizing gasoline and other flammable liquids, pipe bombs, and a canister of cooking gas, set fire to and destroyed five police vehicles, a mobile booking station, and a maintenance shed. Before he escaped the offender left a number of protest statements against the police at the crime scene. Several nights later, on Halloween night, the UNSUB assassinated a city police officer by firing multiple rounds from an assault rifle. The slain officer's partner emptied her service pistol at the killer, who fled in his vehicle. A full-force contingent of local, state, and Federal law enforcement was brought to bear on this case, to include FBI and ATF profilers.

We operated under the assumption the arson/bombing attacks and the police officer's murder were committed by the same offender. The letters espoused a grievance against the police department and the attacks seemed to reflect a mission-oriented nature of the offender. These personality aspects were noted in an extensive media release. Also included was suspected post-offense behavior likely to have been engaged in by the assailant. What might be a suspected outcome, and what might be the offender's reaction, to having an officer empty her pistol at him as he fled? Assuming the officer's rounds struck the vehicle at least once, we believed it was likely the offender would have taken some action to repair, conceal, or dispose of his vehicle. For this reason, the suggested media release read, in part: "After the shooting, he may have disposed of, altered or repaired his vehicle in some form. This vehicle may have been damaged in the firefight." The release then went on to describe the vehicle.

A resident of an apartment complex saw the media release. He realized one of his neighbors had a vehicle similar to the one described by authorities, and he had noticed the vehicle had been newly covered with a tarp after the slaying. The concerned citizen called the police and reported his information. Detectives subsequently arrived at the scene, lifted up the covering, and noticed an apparent bullet hole similar to one that could have been made by the caliber of the officer's service pistol. At that point the suspect left his residence and encountered the detectives. He drew a pistol and attempted to shoot them, but they were able to shoot him first. Evidence in his apartment directly linked him to the arson attacks and the murder. He was subsequently convicted of the crimes and is currently serving a life sentence.

Some final words about media strategies: they do not always succeed as intended, and they may not be advised in all cases. If investigators are closing in on a suspect and the case is fresh or moving along nicely, a media strategy may not be helpful. Why upset the equilibrium of an on-course investigation? Media strategies can inundate investigators with tips. Also, consideration must be given to the possibility that intense media attention might excite a serial arsonist, motivating him to further offend. Additionally, it might be wise to parse the strategy; first, by advising the public of the presence and danger of a serial offender while also seeking its assistance; and next by attempting to communicate with the offender. Behaviorally-based media strategies may be most useful when cases are somewhat cold or the investigation has not been fruitful, or when a serial offender is intensely active and elusive and non-mainstream investigative approaches need to be considered.

## Statement Analysis

Statement Analysis is considered a powerful investigative tool (Adams, 1996; Adams & Jarvis, 2006). We have used it extensively and successfully to examine subjects' written and verbal statements, to identify areas of sensitivity which bear further probing, and to locate indicators suggestive of deception or the purposeful editing-out of significant information. Additionally subjects' language may suggest possible unintended leakage of critical information. Its origin is generally credited to Udo Undeutsch, a German court psychologist who, in the 1950s, developed a method to assess the veracity of statements of children reporting having been abused. His hypothesis was that

statements based on observations of actual (self-experienced) events differ in quality from statements that are not based on direct experience but are products of fantasy or invention (1989).

> [This] "technique focuses on the structured and careful examination of an author's word choices to discern the motivations and sources behind the disclosure. Using probabilistic guides based on generalized and idiosyncratic patterns, the analyst attempts to develop interview strategies that may eventually be useful and are based on the known author's reflections of actual memories or fabricated disclosures of imagination" (Simons & Tunkel, 2014, p. 205).

We consider if the disclosure reflects the subject's best efforts at recollection or if it emanates from a location of origin other than authentic memory (Kohnken, 2004).

Areas that are given particular attention include the following: the use of pronouns, including first, second, and third person and their plurals; using the passive voice ("The alarm was set") vs. active tense ("I set the alarm")—with the passive voice potentially suggestive of a lack of commitment to the statement; deviations from the subject's normal communication habits; evidence of editing or missing time in statements; signs of equivocation such as the use of words like "basically," "essentially," and "maybe"; changes in language ("her bedroom" … "her bedroom" … "the bedroom"); providing apparent unnecessary information to relay the story; providing sensory and spatial details—usually associated with veracity; and examining whether or not the statement is rich in detail (Adams, 1996; Adams & Jarvis, 2006; Ekman, 1992; Pennebaker, 2011; Rabon, 1996; Rudacille, 1994; Sapir, 1987). The purpose of this section is not to rehash this technique, which is well explained in these and other sources, but to provide some examples of how it has been a useful tool in arson behavioral analysis.

There are various schools and systems available in the area of statement analysis. All ATF profilers were trained in the method of Scientific Content Analysis (SCAN), a technique developed by Avinoam Sapir, a former Israeli policeman and polygrapher. Much of our experiences have been based on and enhanced by his training. At ATF's New Agent Training students are introduced to this technique and encouraged to pursue continued training after reporting for duty. This introduction includes four core concepts of statement analysis:

- Telling a lie is difficult and stressful to human beings. When people lie about something significant, they generally fear the negative consequences of getting caught in the lie. They exert far more mental energy creating the story and also trying to determine whether or not their listener is believing them.
- One way of getting around the stress of the lie is simply to not tell everything—a lie by omission, rather than commission. The deceiver will edit out critical information from his story—and this editing may be recognized by linguistic clues.
- The liar's language will betray him. A polygraph is designed to measure heart rate, breathing, cardiovascular activity and perspiration, which will show changes when a subject is stressed by not telling the truth. Much like with these bodily functions, a person's language can signal when he is being deceptive.
- Truthful statements come from memory. When a person tells a truthful story, he faithfully orients himself back in the past and, drawing from the part of his brain that deals with memory—not creation, he relays a story in chronological order. The use of the first-person and past tense is generally the hallmark of a truthful statement.

Note that statement analysis can be applied to listening to verbal communications, either live or recorded; reading transcripts of those communications; or reading actual statements generated by subjects. Many of our behavioral analysis assignments have involved watching recorded interviews in an effort to assess the veracity of subject, as well as looking for areas that appear sensitive to him or her—areas that will be valuable for further inquiry.

## Pronouns

Criminal investigators and profilers are trained to look at the totality of evidence, including behaviors exhibited at crime scenes. Crime scenes typically are not as absolutely reconstructible as they appear in television, movies, and novels (this is especially true in arson investigations where the scene is often already disturbed by fire suppression efforts). Investigators are discouraged from basing assessments solely on one piece of evidence (e.g., an inexplicable blood spatter pattern or the presence of foreign DNA) or one behavior noted at a scene (e.g., an apparent random targeting of a victim who opened a booby-trapped newspaper box). Instead, we follow a process of examining all aspects of a crime—the victimology, the forensic and behavioral evidence, the demographics of the area, other geographic and temporal issues, the analysis of any weapons found, etc. Statement analysis, however, gives us a bit of latitude in this arena; sometimes our analysis may hinge on one word, and even one letter—the pronoun "I." This pronoun can signal who is absent and who is present in a story. It can suggest ownership and accountability. And when it is missing is can suggest a lack of commitment on a subject's part to his statement; pronouns are not as likely to appear in deceptive statements (Knapp, Hart, & Dennis, 1974; Newman, Pennebaker, Berry, & Richards, 2003). A missing pronoun also can suggest the presence or absence of someone else in the story—someone for whom the subject does not wish to account. Consider the following case examples.

A Fire Marshal requested analysis of a statement of a victim of a house fire. The short statement was glaring with missing pronouns. It read:

"*WOKE OUT OF A SOUND SLEEP @ APPROX 4:11 AM*
*THOUGHT I HEARD SOMEONE IN THE HOUSE (I LIVE ALONE*
*WENT TO THE LIVING ROOM, SAW FIRE COMING FROM THE EAST*
*END – NEW ADDITION – RAN DOWNSTAIRS – CALLED 911*
*CHECKED HOUSE AGAIN – WENT DOWN – MOVED MY WORK*

*TRUCK OUT OF WAY – MOVED TWO CARS OUT OF*
*GARAGE FLAMES SO BAD, FIRE SPREAD SO QUICK*
*DIDN'T GET BACK IN FOR ANYTHING ELSE*
*WAITED FOR FIRE DEPARTMENT AND SHERIFF –*
*SAW NO ONE ON PROPERTY UNTIL FIRE DEPT*
*ARRIVED*"

The immediate concern for the Fire Marshal was missing pronoun "I." He knew such omissions could suggest deception, but he was further advised they could indicate the subject did not want to account for someone else who was at the scene. Subsequent investigation revealed an under-age male also had been present in the residence.

Note that the inverse of what is described above also can occur. In a small southern city a local newspaper editor was the apparent victim of two set fires at his residence, as well as two threatening communications delivered to his office. In written statements to authorities the editor and his wife wrote of their activities the night of the second fire. He wrote, "*We* got home about 9:30 I think and just started watching television. *We* did our nightly tour of the yard … and then started getting ready for bed about 11 or 11:15." Note his use of the pronoun, "we" in appropriate places. His wife's narration of the same time read, "I remember late evening—11 pm. [My husband] and I walked through the front yard looking at the flower bed—strolled through back yard, came inside, watched a little TV in the living room—went to bed and were watching TV …" Notice she dropped her pronouns, using neither "we" nor "I." The husband later confessed to starting the fires and sending the messages. It was between the period when he watched television and then prepared for bed that he left briefly to set up and start the fire. It is interesting that his wife dropped the pronouns from her statement. Had she used the pronoun, "we," her account would not be entirely true, and deception is stressful for human beings. Similarly, if she had simply written, "I," investigators probably would have noticed it and likely would have asked where her

husband was at that time. It begs the question, "Did she suspect his involvement in this matter?"

Changes to possessive pronouns tend to be particularly noteworthy in arson investigations. This was evident in a case where a man was suspected of killing his wife by fire. When asked to describe the day of her death, he said he woke up with her and then explained that a coworker was going to pick him up because "*our* truck had died on Saturday." He wrote about getting ready for his coworker, and about not being sure whether he locked the front door "*like thousands of times before*," (a suspicious statement, itself). Curiously, he then indicated he called the mechanic from work that morning, "*several times to make sure I had* **my** *truck by early afternoon*." Since these calls occurred hours before he reported driving home to find his wife dead of smoke inhalation—when he faithfully put himself back in time and relayed the story in chronological order—it still should have been "*our*" truck.

## Editing

Editing is good; we appreciate it when people edit a story they are relaying. When we ask what happened, we expect them to tell us what is important. It becomes concerning when we observe editing outside the subject's normal pattern of communication, or when it occurs around the time a crime has been committed. Two very effective methods for detecting possible editing involve looking for linguistic markers and norming the *pace* of a subject's language.

Analysts look for linguistic markers such as the following: *a little while later, after a while, the next thing I remember,* **started**, and *finished* (Sapir, 1987). In our experience, the word "started" has been a very effective indicator of editing: *I started to watch television* is different than *I watched television*. Starting to do something suggests an interruption. Note the statement previously from the newspaper editor, "*We got home about 9:30 I think and just* **started** *watching television. We did our nightly tour of the yard … and then* **started** *getting ready for bed about 11 or 11:15*." Immediately upon reading

that we compared his statement with his wife's. She did not use the emblematic "started;" however, that's when the significance of her missing pronouns was evident. In this case, the two statements complemented each other.

A curious clue of editing can be found in the word, "then." It is considered a text bridge, employed when a subject chooses to skip over information in a story (Howald, 2011). "I drove home and *then* went inside" is subtly, but structurally different from "I drove home and went inside."

Another interesting method for recognizing editing appears so simple as to defy credibility. Determining a subject's normal pace of communication can be of great value (Sapir, 1987). The number of lines in a subject's statement is divided by the number of hours the statement covers. That result is considered the subject's normal pace. For example, if a subject writes a two-page statement consisting of 48 lines covering the 16-h period from the time he wakes up at 7:00 a.m. until the time he goes to bed at 11:00 p.m., his pace would be considered three lines per hour. We then look for deviations from that pace. So if he writes three lines for a time between 8:00 a.m. and 9:00 a.m., this would be consistent with his "normal" pace. If he continues detailing another activity from 9:00 a.m. until 11:00 a.m. in six lines, the pace is appropriate. However, if he reports going to lunch from 12:00 noon until 1:00 p.m. and only uses one line, it represents a quickening of his pace and could suggest he is editing out information at that point in the story. If this change occurs around the time of the crime it can be especially significant. The inverse is also noteworthy; if a subject dramatically slows his pace and uses far more lines than usual to cover a period of time, it can suggest a lot was happening during this timeframe.

This dramatic slowing of the pace was a critical point in our analysis of the statement of a security guard at a construction site for upscale homes. Arsonists set flame to more than 40 houses, causing an estimated $10,000,000 in damages. In his statement, the guard's pace changed significantly when he was writing about the end of his shift. Investigators were advised to

focus their follow-up questions on this time-frame, and the guard subsequently admitted he allowed four friends into the site and the group set the fires.

Editing also can be suggested when a subject shifts his tenses, such as a narrative that moves from the past tense to the present or future tense; in fact, it may be considered a mistake in editing (Adams, 1996; Sapir, 1987). The hallmark of a truthful statement is first person, past tense. Consider the statement of another security guard at a building where abortions were performed, which was damaged by a suspicious fire.

> "*Got the keys from him, went to open 2 bottom gates in basement came back to the front docks **started** to make rounds – went from 1st floor to the Pen House* [sic] *which **takes** about 30 –40 mins. 0600 – went out to the Parking Deck to check on the deck that **took** about 15 min to ½ hour. **Then I** made a round …*"

Investigators found his statement suspicious for the lack of pronouns, his use of the word, "started," his shift in tense to present—"which *takes*," as opposed to his next wording, "that took," and his likely text bridge "*then*." He was interviewed extensively and he eventually admitted something he was trying to conceal—not the setting of the fire, but smoking on duty. This provided us with a valuable lesson: a subject's suspicious language may not always relate to involvement in the crime at hand; it may be attributable to something else he is trying to conceal that may be comparatively minor.

## Statement-Generating Questionnaires

Nearly all of the above-noted subject statements were generated by a case-specific, designed questionnaire, usually a multiple-page document, the objective of which is to get the subject writing about the crime at hand, provide any valuable witness information he may have, generate a statement, and assert his truthfulness. Law enforcement officers have utilized various self-designed forms of this questionnaire and ours have been primarily based on Sapir's *Verbal Inquiry Effective Witness* (*VIEW*). The value of such a questionnaire is that it often allows investigators to conduct a mass interview of many subjects and then triage them into broad categories of *likely to be cleared* or *problematic*, enabling them to quickly focus their efforts on the more critical subjects. It can facilitate the mining of available witness information, generating important leads. It may also produce some unusual, often symbolic language or information, ripe for theme development and follow-up questioning.

One question often asked is, "If you were going to conduct the investigation, how would you do it?" Most truthful witnesses will want to try to help the police, and they will say things like, "I would talk to any building maintenance or staff that was working in that area at the time of the fire;" "Interview all of us who were working that night"; "Talk to supervisors concerning any disgruntled, upset, or recently terminated employees"; or "Obtain a list of individuals with keys." After a series of four arsons in 3 months, ten campus employees at a Virginia university were administered a questionnaire. Only one, a campus police officer, initially balked at filling out the form, but he eventually complied. When asked how to conduct the investigation, he wrote, "I am not familiar with investigation procedures because I have never investigated an incident." This type of non-helpful answer is an unexpected response from a police officer, and consistent with our experience with guilty subjects. He later confessed to the arsons, as well as a series of thefts, and he told investigators the request to complete the questionnaire was critical to his admissions.

In the mass arson investigation at the home construction site, the security guard's responses to the questionnaire were suspicious and we felt he needed follow-up questioning. Not only did we note the change in his pace around the time of the crime, we also noted a shift in tense and a linguistic marker suggestive of editing: "I went to work at Wakefield Apartment until 03:00 am. *After* that I *had gone* home to be with my son …" Note the word, "after," and the shift from the past, to past perfect tense. The guard also gave a red flag answer to a series of questions designed

to lead the subject to assert his truthfulness with a phrase as simple as, "I didn't lie." His answer, which we have noted anecdotally in other deceptive statements, was, "I have no reason to lie about anything." As a result of his written responses we advised investigating agents of ATF, the FBI, and the County Sheriff's Office to use the questionnaire as the springboard for further interviews. We suggested they attempt to get clarity on some of the times and events he reported, in a polite manner with him, as if he were a part of the investigating team. Their efforts resulted in his case-breaking admissions.

The use of a structured questionnaire prior to an in-depth interview can greatly assist investigators with developing rapport-building and interviewing themes. Consider one suspect, later convicted for a series of arsons in a large apartment complex. He was asked to provide five reasons for the unsolved crimes. He wrote, "Revenge;" "Anger;" "Hatred;" "Bad Life;" "Loss of Job;" "Divorce;" "General Depression;" "Just think its funny to watch other people be scared …;" "Jealousy." There were far more than five reasons, which certainly was a red flag. Also, each could be used as a theme in an interview.

The questionnaires can generate rich, likely unintended, biographical information. Sometimes their responses practically demand follow-up questioning. In one case involving the slayings of an elderly couple and the subsequent arson of their residence (likely designed to conceal evidence), the couple's son-in law emerged as a suspect. His answers to the questionnaire were highly suspicious. He completely omitted the pronoun, "I," from his statement, and when he was asked for possible reasons for the crime, he wrote, "Pop may have inadvertently said something offensive to somebody." There was suspected tension between the two. And his comment about how he felt whenever he visited their home was quite chilling: "When you left, you just felt a nice **glow**."

## Interviewing Strategies

One of the services most requested of arson profilers are interview strategies. There are many schools and systems and techniques for interviewing and interrogation, but here the discussion will be limited to a few examples of suggestions we routinely make that appear helpful to law enforcement. We encourage all investigators to pursue as much training in this field as they can, and to try to develop their own "best practices." In a time of unprecedented, constant communication—where so much of that communication is done via small, handheld electronic devices and not face-to-face, successful interviewing may be an art in jeopardy.

## Preparation

ATF Senior Special Agent James J. Newberry (Ret.), one of the original developers of ATF's interviewing program and one of the declared "*Wizards of Deception Detection*" by O'Sullivan and Ekman (2004), taught that for every hour of interviewing anticipated, there should be 2 h of preparation (J. Newberry, personal communication, September 1994). Successful investigative outcomes are much more likely when they include intensive preparation involving a thorough knowledge of the case facts and the personality of the subject. Such preparation allows interviewers to decide the best construct of the interview, such as the choice of the age, gender, and personalities of the interviewers, as well as the location and time of day to best elicit truthful admissions. It can offer successful rapport-building strategies. It can help identify normal means of communication for a subject, which can then highlight deviations from those norms.

BAU and ATF profilers have used a comprehensive instrument that has been the subject of much development and evolution over the years

called the *General Assessment Questionnaire*, (GAQ).

> The GAQ was created by the FBI's Behavioral Analysis Unit (BAU) as a comprehensive and organized tool to obtain a global perspective of a potential subject, and provide investigators with background, personality characteristics and specific information to assist in investigative and prosecutive strategies. It is recommended that the GAQ be completed by as many individuals as possible. Investigators are encouraged to identify individuals who know the subject well and who have different perspectives of the subject (e.g., work environment, hobbies, intimate relationships, friendships). This tool is considered a living document and may be altered depending upon the needs of the investigation, investigative agency, and/or the BAU. It is not intended to be an exhaustive list of questions, but is comprised of questions that help determine the background and personality characteristics that have been identified as the 'most salient to the investigative process' (United States Department of Justice, 2014, p. 107).

## Techniques

We have noted above the Analytic Interviewing technique, the cognitive interview, statement analysis, and the NLP concepts of communicating in a subject's preferred representational system as a means to build rapport and elicit accurate and truthful information. Techniques of these methods are frequently woven through our subject-specific interview strategies. We have so often encountered last-minute requests for interviewing strategies (i.e., "I'm on the way to the jail now to interview a serial arson suspect. Can you give me a few tips?")—requests that we cannot refuse—so some of the following suggestions have also become the foundations of our basic strategies.

Napier and Adams (1998) detail the strategy of *Rationalize the Act, Project the Blame*, and *Minimize the Crime*, which we have recommended and used successfully over the years. Some of the following case examples may help readers understand these strategies:

Again, it is difficult for people to admit something they think might be considered "weird," or

outside the norm of behavior—even criminal behavior. It is difficult for subjects to confess to a crime they think no one would understand. "Rationalization offers plausible explanations for suspects' actions that reflect favorably on them by presenting their actions in a positive light" (Napier & Adams, 1998, p. 12). For a series of arsons of old, historic churches in the rural deep South we offered the following rationalizations, knowing these crimes might be especially difficult to admit to given the "sacred" status of the Church and the attendant community outcry and anger.

> *You know, in our line of work, we see hundreds of church fires. They're not really that uncommon." In fact, we see all sorts of people setting fire to churches – parishioners wanting to get rid of an older, dilapidated church and rebuild a new one with insurance proceeds; neighbors concerned that a church may be so old that it is actually a fire trap and that sooner or later someone may get hurt in it; we even see a lot of Pastors each year burning their churches for the same reasons and sometimes even to cover up crimes like embezzlement. So churches being burned is nothing new to us. People from all walks of life – we're not talking hardened criminals – are involved in church fires.*
> *In fact, in the long run, you may have done these people a favor. Rebuilding a church helps the local economy; it puts people to work; it brings in revenue to local businesses; and the church members get a brand new building and get rid of an old firetrap!*

One aspect of the personalities of those engaged in reckless criminal behavior is that they often do not accept responsibility for their actions. When things go wrong in their lives, it is never their fault. A good interview strategy is to project the blame for this situation away from the offender. Consider themes like the following:

> *You know, I understand that you may have had some hard knocks in life. You didn't have the best of home lives growing up. People didn't understand or listen to you. You've had some tough times. It's understandable that someone with the things you've had to deal with might get off track. I don't think your teachers or your bosses ever really knew how smart you really are. I don't think they saw the potential in you that I do.*
> *"Let's face it. You drink. I think all of this could be blamed on alcohol. It was the drinking – not you. If we could help you control your drinking, none of this would happen again."*

*"The Church is a bunch of hypocrites. They make people feel like it's a sin just to enjoy life."*

Projecting blame onto the victim has been highly effective in successfully interviewing suspects of violent crimes.

According to Napier and Adams (1998, p. 13), "Minimizing the offense helps suspects reduce to their psychological satisfaction their roles in or the seriousness of their crimes." We have suggested the following language.

*"You know, what we're really talking about right now is simple vandalism. No one got hurt – not a firefighter, not a police officer, not a citizen – no one! We can deal with a few old buildings burning."*

*"Actually, the Churches weren't destroyed – just old, empty buildings. The Church is really the people themselves. In fact, one preacher told us, "We didn't lose the Church; just a building."*

*"You actually took steps to ensure that no one got hurt – remote, empty buildings in the middle of the night. That looks good for you. It shows you care."*

## Power and the "Pitch Room"

In their day-to-day lives, serial arsonists are often unempowered individuals; therefore we suggest giving them power in the interview setting as a means to establish rapport. Investigators should treat the interviewee with decency, respect, kindness, and politeness. They should also project respect through focused listening. It appears elementary, but it bears repeating: a distraction such as paying attention to (or worse yet, answering) a cellphone text or call can seriously harm rapport and break the flow of an important conversation. Even hearing the signal of a communication can be an interruption. Adopting and projecting a mindset where the subject is viewed as someone worthy of respect and whom the investigator can learn from can be of value in establishing rapport.

Staging an interview can be a creative and fruitful endeavor. Immediately prior to an interview, a suspect may be walked by or through an office set up to appear that he has been the focus of a massive, coordinated law enforcement oper-

ation. Investigators should be at desks, in front of computers, and appear relaxed, confident, and energetic in their efforts. The room might contain a poster-sized sketch of the suspect (made from a picture of him), labeled, "Suspect seen at XYZ arson site." File cabinets labeled with the suspect's name may be easily observable in the room. Additionally, there could be a poster-sized blow-up of the suspect's fingerprints, labeled, "Known prints of John Doe," accompanied by another blow-up of his prints labeled, "Fingerprints found at arson scene." Points of comparison might be noted between the two sets. There can be blown-up pictures of the suspect's vehicle and residence on the walls. We have referred to this set-up as the "*pitch room*."

Investigators may wish to stand upon "noticing" the suspect, smiling and nodding politely at him as if they have been expecting him. The suspect may be introduced to senior staff and an overall onsite commander who shakes his hand and thanks him for coming in saying, "I know we've all been waiting for this moment," and words to the effect of, "We know you're going to do the right thing." The commander could then turn him over to the care of the interviewers with words of praise—that they are his best investigators, and that he is confident they will treat him fairly and with respect. If the investigation has suggested the suspect is enamored with the Fire Service (e.g., Paul Keller, Thomas Sweat), senior fire officials may want to be present and wearing dress uniforms. This type of staged interview can have the effect of putting unexpectedly positive emotional pressure on the suspect—playing to his ego and needs of power, and motivating him to cooperate with investigators by practically making him part of the team. His "role" on the team is simply to cooperate and tell the truth. A word of caution: the Pitch Room is not designed to be the place where the suspect is interviewed or where he spends a lot of time. Being in this environment for too long can overwhelm and distract him; he may also see a mistake in the staging, such as an incorrect picture or the suggestion of evidence he knows he did not leave.

Arguably the most successful use of this technique in the history of arson investigations was in

the Seattle serial arsonist case. Paul Keller was picked up by officers in the early morning hours and placed into a caravan of marked vehicles with lights on in an attempt to appeal to his self-importance and ego. Officers told him he was going to meet the heads of the Task Force and that he should hold his questions. A distinguished-looking fire chief in full dress uniform greeted him with a handshake and expressed confidence that Keller would do the right thing. He was led down a corridor that was staged with examples of positive evidence against him to include shoe prints and pictures he had taken of his previous arsons. His parents also were present and had agreed to assist with his introduction to the ATF agent and a Fire Department Lieutenant who were to interview him. Unscripted, his father said, "They know everything, son. They know everything." He hugged his child and left him with the interviewers. They skillfully and quickly obtained the needed confession, their months of hard work and intense preparation paying off completely. Paul Keller later pled guilty to 32 counts of arson; he admitted to 44 more as well as three counts of murder. He was sentenced to 99 years in prison without the possibility of parole (D. Whetsel, personal communication, September 2013; G. Gary, personal communications, June 2004, February 2016; Schwartz & Wise, 2000).

## Conclusion

The discipline of criminal profiling has been used to assist violent crime investigators for more than 40 years. It has been the subject of a multitude of textbooks, articles, novels, movies, and television programs. It has been considered part art and part science, but to many in the field, the term *discipline* is still preferred. Practitioners view it as an investigative tool, the goal of which is to assist law enforcement with identifying and apprehending those who would commit society's most dangerous crimes. Arson is one such crime and this chapter has focused on a few techniques that are used routinely and successfully by arson

profilers—media strategies, statement analysis, and interviewing strategies—curiously, all of which relate to communication. It is noteworthy that in an age of *24/7* mass communication, the constant flow of information via smartphones, and the resultant diminishment of actual conversations, these criminal profiling techniques have stood the test of time. They remain foundational and still hold significant value. Profilers would never claim that behavioral analysis is an absolute, infallible panacea, or that we alone solve crimes. In all of the cases cited herein, we were fortunate to be able to play a part in what was always a team effort. Almost invariably, arson cases are solved because of dogged investigative work and the talents of hardworking professionals who keep the cases on-track and who persevere until the cases reach their just resolution.

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# Child Molesters Who Abduct: A Behavioral Analysis

Kenneth V. Lanning and James O. Beasley

## Introduction

The following **behavioral** analysis is intended to set forth practical investigative information. It is based not only on the available research but also on the extensive professional and reflective experience of the authors in the behavioral analysis of cases involving the abduction and sexual victimization of children.

## Access and Control

To sexually victimize children and minimize the chances of legal consequences, an offender needs both *access* to and *control* of his victims. How sex offenders typically do this is largely determined or influenced by their relationship to a particular victim. This relationship also plays a role in defining the nature of their crimes. One simple way for both investigators and nonprofessionals to understand these important variations in child molester patterns of behavior is to divide

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these relationships into three useful categories: *stranger*, *intrafamilial*, and *acquaintance*.

Although stranger, intrafamilial, and acquaintance child molesters are often described as seemingly separate and distinct offenders, reality is not so simple and clear cut. Each relationship should be viewed on a continuum. A *stranger* can be someone never seen before and unknown, someone seen but nameless, someone named but unknown, someone named and slightly known, someone known from the Internet but never seen in person or anyone in-between. He might use the services of a child prostitute who may or may not know him. Every acquaintance offender started as a stranger the first time he met any potential child victim.

The *intrafamilial* molester can range from a biological father, to a stepfather, to a parent's live-in boyfriend or roommate. This type of offender can molest children other than his own, and he may be either unknown or an acquaintance to these additional victims.

An *acquaintance* molester is someone clearly known to the child victim, but being known can range in duration and depth. He can be a well-known teacher, coach, or babysitter. He could be a neighbor the child sees every day, or an Internet friend the child regularly communicates with but sees for the first time when they finally meet in person. Distinctions among acquaintances (e.g., friend and neighbor) have been promoted and can be helpful. One advantage of these more specific

labels is that a wider range of descriptions allows for—at least in some cases—more precise categorization for investigators. For example, the term *friend* describes a relationship that is closer than *acquaintance*. On the other hand, using the term in the context of a relationship between a child and an adult is problematic since such relationships are usually quite different from those between adults. In addition, the differences between friends and acquaintances can be quite blurry; for example, at what point and in what circumstances does an acquaintance become a friend?

Likewise, the term *neighbor* has been used, including by one of the authors (JB) in prior research to label some adult offender/child victim relationships (Beyer & Beasley, 2003). Again, while useful to an extent, it is fraught with difficulty, mainly because *neighbor* defines a proximal/geographic context and fails to account for the more personal emotional dynamic we seek. Moreover, a neighbor can be a stranger, an acquaintance, or even an intra-familial contact, depending on the details and circumstances in a given case. This potential overlap, therefore, is more apt to distract from, rather than enhance or deepen, our understanding of this issue.

While offenders sometimes live in the vicinity of their victims, the neighborhood can be quite difficult, if not impossible, to precisely define. For instance, an offender may live near a child, and therefore, by inference or supposition, can encounter or create opportunities to observe or become acquainted with that potential victim. However, depending on variations in such dynamics as traffic flow, visibility, types of roadways, intersections, the physical layout of the immediate surrounding landscape, and distances between residential structures/units (single family homes, apartments), an offender may never have observed, encountered, or personally met a given child victim. While investigators are wise to always consider the possibility an offender is (or was) a friend or neighbor to a victim, for the reasons mentioned and for the sake of simplicity and clarity we have chosen not to consider them distinct categories of offender/victim relationship.

Some offenders befriend, romance, or marry women who already have children to gain access to them. Such molesters technically may be intrafamilial offenders, but dynamically they might be better viewed as acquaintance offenders. This is an important investigative distinction. In addition, an offender who molests children to whom he is an acquaintance also can molest children to whom he is a stranger or relative (Lanning, 2010).

Although not perfect and precise, we believe the following basic categories are easily understood and may be helpful to both professionals and nonprofessionals in recognizing that all child molesters are not the same. We define our relationship categories as follows:

## Stranger

For purposes of this discussion, a stranger is defined as someone who has had limited if any prior contact or interaction with a child victim—an unknown individual. The term is most problematic and confusing when used in communicating with children, but since this discussion is intended for adult professionals the term will be used. Sex offenders who are strangers may *access* children in places where children congregate (e.g., parks, playgrounds, and shopping malls) depending on age preferences. They tend to take *control* of the child through use of a con, ruse, or blitz assault. They can use trickery or manipulation to initially lure their child victims but then control them more through confrontation, threats of force, and actual physical force. The degree and type of trickery can be quite varied. For example, some stranger offenders use their motor vehicles to "accidentally" strike victims (who were on foot or bicycling) at slow speeds and then attempt/pretend to offer medical assistance with the actual intent of taking them elsewhere for sexual assault (Beasley & Eakin, 2013). Stranger cases typically involve some level of threat, force, or violence to access and control the child victim. With strangers, long-term access to the child is usually not necessary; force/abduction is more likely.

## Intrafamilial

This type of sex offenders tend to gain *access* to children through their living arrangement or custody situation. This relationship usually gives them long-term access. They tend to *control* their victims through their private access and family authority. Their control stems from their authority position and status over the child, as well as the fact they provide developmental necessities such as food, clothing, shelter, and attention. They are the source of the child's very survival. Although such intrafamilial offenders can be violent, by definition any resulting abduction is not considered a *nonfamily abduction*.

## Acquaintance

Most acquaintance child molesters use their occupations, hobbies, neighborhoods, or online devices to gain *access* to child victims. Such offenders, although sometimes violent, tend by necessity to *control* their victims primarily through the grooming or seduction process and by exploiting the immaturity of their victims. They usually need long-term access to achieve sufficient control. This process not only gains the victim's initial cooperation, but also decreases the likelihood of disclosure and increases the likelihood of ongoing, repeated access. Acquaintance offenders with a preference for victims younger than 12 also are more likely to spend time seducing the potential victim's parents or caretakers to gain their trust and confidence. Such offenders must be willing—and able—to invest more time and effort into maintaining long-term access and opportunities for repeated sexual encounters with a victim. An acquaintance molester who seduces his victims can sometimes go unreported for years if not indefinitely. The short-term techniques used by some strangers to draw children close (e.g., "Help me look for my puppy" and "Do you want some candy") so they can use force are examples of luring, not grooming. Such stereotypical approaches are not just folklore; they are used quite successfully to abduct children.

From a behavioral analysis perspective, the determination of who is an acquaintance child molester should be based more on the process and dynamics of the child victimization and less on the technical relationship between the offender and child victim. As mentioned, an offender who is a stepfather might be an acquaintance molester who used marriage just to gain access to children. The acquaintance child molester might get involved in abduction, usually by not allowing a child he knows and has seduced to return home. He may wind up abducting or not returning this child because he wants or needs the child all to himself away from a judgmental society. Such missing children often voluntarily go with the offender. Abducting or running away with a child with whom you can be linked is high-risk criminal behavior. Investigators can more easily identify this abductor and therefore more easily find the missing child. Some acquaintance molesters get violent because they misevaluated their victim or want to prevent termination or discovery of the sexual activity.

It is important to note that the same offender can have different relationships with different victims. Mixing methods of control can constitute high-risk behavior for the offender. Using force and violence with a child to whom the offender is **not** a stranger, is more likely to result in disclosure by the victim and identification of the offender. In one case familiar to the authors, an offender was simultaneously sexually victimizing many boys to whom he was an acquaintance by nonviolently grooming them as well as a few boys to whom he was a stranger by abducting and murdering them. The nonviolent acquaintance grooming victims had not previously disclosed their victimization and the prior violent stranger abduction victims had only been known for certain to be missing. It was only after the offender gave into his sadistic urges and made the need-driven mistake of abducting and murdering a boy to whom he was known and linked that all the cases were solved.

## Background

In the USA, May 25th is National Missing Children's Day—a day on which America honors and remembers missing children. This specific

date was chosen because it is the date in 1979 when 6-year-old Etan Patz went missing on his way to school in New York City. Just as the Lindbergh case in the 1930s became a landmark case for increased national awareness concerning ransom kidnapping, the Patz case became a landmark case for increased national awareness concerning stranger abduction. Each played a major role in raising awareness and creating new laws but also helped fuel some confusing stereotypes.

In 1970, when the first author (KL) joined the FBI and someone talked about the abduction or kidnapping of a child it was immediately assumed it was a ransom-motivated case. Within our law enforcement careers, in <20 years, that initial assumption (or strong suspicion) drastically changed to it was a sexually motivated abduction by a sexual predator. Obviously either assumption is not always correct. Because of his young age and other case factors, it can be reasonably assumed that Etan Patz was most likely abducted. Although often referred to as stranger abductions, the term *nonfamily* is more accurate.

Children can be missing for a wide variety of reasons (e.g., runaway, lost or injured, benign episode, and family abduction) other than nonfamily abduction and children are abducted by nonfamily members for a variety of reasons (e.g., to solve a personal problem, ransom/profit, to kill, miscellaneous criminal activity, and political) other than sexual motivation. The recognition that the terms *missing* and *abducted* are not synonymous and interchangeable is important in investigative and prevention efforts. The term *missing children* is so vague and imprecise it often has little value to investigators and the general public.

Sexually motivated nonfamily abduction is probably the only aspect of sexual victimization of children that people think occurs more than it actually does. The public tends to underestimate the likelihood a family member or trusted acquaintance would sexually victimize their child and overestimate the likelihood of stranger abduction. In fact, there is a prevailing perception today that young children are highly likely to be abducted by a sexual predator. Although it is hard to know with certainty, we are unaware of

research that indicates that children today are any more likely to be abducted by sexual predators than they were 40 or 60 years ago. Many adults love to reminisce about an idealistic childhood during which they did not lock their doors and could go out and play with no fear of abduction, but believe that today they cannot let their children out of their sight. Whatever the magnitude of the problem, it is clear the impact of nonfamily abduction of children cases cannot be measured by numbers alone.

Three broad and significant studies were conducted to better estimate the numbers of missing and abducted children in the USA in a given year. The first, the *National Incidence Studies of Missing, Abducted, Runaway, and Thrownaway Children* (NISMART-1), was published in 1990 and covered the year 1988 (Finkelhor et al., 1990). The second, NISMART-2, was published in 2002 and covered the year 1999 (Sedlak et al., 2002). The third, NISMART-3, was partially published in June 2016 and covered the year 2011 (Wolak et al., 2016). As of this time, NISMART-3 has published only its findings concerning *stereotypical kidnappings*. NISMART defines a stereotypical kidnapping as "a nonfamily abduction in which a slight acquaintance or stranger moves a child (age 0–17) at least 20 feet or holds the child at least 1 h, and in which one or more of the following circumstances occurs: The child is detained overnight, transported at least 50 miles, held for ransom, abducted with intent to keep the child permanently, or killed." Based on the three completed studies, it is estimated that 200–300 children (NISMART-1), 115 children (NISMART-2), or 105 children (NISMART-3) are abducted each year by nonfamily members in a manner that fits our stereotypical image of an abducted and missing child. Because of the different methods used in NISMART-1 and 2 and the rarity of such cases, no scientific basis exists to conclude that there was a true decline between dates of studies—although it is possible. NISMART-3 replicated the same Law Enforcement Survey methodology used in NISMART-2 and resulted in estimates too similar to suggest an actual decrease in victims since 1999.

The best data now available indicates only about 2% of *missing* children were abducted by a

nonfamily member. NISMART-2 indicated of these, 79% were never reported to the police for purposes of locating the child and 81% of the children were 12–17 years old. The most startling statistic is that 99% of the nonfamily abducted children were returned alive and relatively uninjured within a short period of time. The publicity and attention paid to unsolved or fatal stereotypical child abductions obscures the fact that the vast majority of sexually motivated child abductors release their victims alive and sometimes they even return the victims to the vicinity of their homes.

Even in the *stereotypical kidnappings* estimated in 2011 by NISMART-3, 92% of the child victims were recovered alive, compared with 57% of such victims in 1999. NISMART-3 also indicates that fewer *stereotypical kidnappings* ended in homicide in 2011 than in 1999 (8% versus 40%). Most such kidnappers were not violent at first contact with victims; instead, they lured almost 70% of victims through deception or non-threatening pretexts.

Confusion over the outcome of nonfamily child abduction cases is fueled by the failure to precisely define and consistently use terms. For example, there are major differences between what we refer to as *short-term* and *long-term* abductions. A few years back, the State of Washington did a major study of cases in which children were missing and murdered. In that study Hanfland, Keppel, and Weis (1997) found a very high percentage of these children were murdered within 3 h. As a consequence, many people who do not understand the operational definitions and parameters used in this study cite it as indicating that abducted children are usually murdered within 3 h. However, this was a study only of cases where children went missing and were murdered (Brown et al., 2006). In addition, not all the murdered missing children in this study were initially missing because they had been abducted. Some were missing for other reasons (e.g., runaway) before they were murdered. While being a missing child is clearly a risk factor (Beasley et al., 2009), only a very small percentage of missing or even nonfamily abducted children are murdered. Thus, the study

by Hanfland and colleagues should not arbitrarily be applied to all missing or abduction cases and investigators should respond to all cases with the assumption the abducted child is still alive until evidence indicates otherwise.

In spite of what the NISMART-2 and 3 research indicate, it is still almost universally recommended that children should always resist and fight potential abductors. While it is always these actions could result in escape for some children, such resistance also could result in a child becoming one of the 1% murdered or severely injured instead of the 99% released relatively unharmed. The child who resists and gets away is able to go on television to tell his or her story for everyone to hear; the child who resists and is murdered cannot. In short, we know of no way to precisely count the number of abducted children who were severely injured or murdered because they resisted.

Providing advice on how to avoid abduction situations is easier than giving confrontation advice for when avoidance fails. Confrontation advice is a complex and difficult decision that should be based on hard-to-know factors such as the type of offender, the personality of the child, and the location of the attempted abduction (Hazelwood & Harpold, 1986). How is the child to know which type of offender is confronting him/her? We are not suggesting children should never actively resist, but the research needs to be objectively evaluated and considered before disseminating simplistic advice that could make the situation worse. Finally, and quite simply, we also have a fundamental problem with putting too much of the prevention responsibility on the child.

## Definitions

The topic of this particular discussion, child molesters who abduct, can be defined by four criteria: *age* of victim (child), *motivation* for abduction (molestation), *type* of offense (abduction), and the *relationship* between offender and victim (nonfamily). The cases studied and analyzed involve the nonfamily abduction of victims younger than 18 years of age primarily for the sexual gratification of the offender.

The *age* criterion is fairly straightforward and obvious, but involves lumping together individuals (i.e., children) who physically, socially, and behaviorally vary greatly. The *motivation* criterion is more complicated and uncertain since the primary motivation for an abduction can be difficult to determine with certainty. The *type* criterion is a matter of both legal definition and public perception. It usually implies some movement of the victim, but does not necessarily involve physical force. Although often called "stranger abduction," the *relationship* criterion (i.e., nonfamily) is more accurately defined by the lack of a family or guardian relationship between offender and victim. Cases can involve abductions by individuals who could be considered acquaintances.

In written and spoken communication, definitions are crucial to understanding. It can be problematic when people use basic or common terms but fail to precisely define them. The result can be the confusion created by calling different things by the same name or the same thing by different names. The definition problem is most acute when professionals from different disciplines come together to work or communicate. For example, legal definitions may not be the same as societal attitudes. Defining terms, however, does not change the fact that in other contexts the same terms may be intended or defined to mean otherwise. It is not necessarily a matter of right and wrong but just difference. The important point is not that terms should or can have only one definition, but that people using them should communicate and then <u>consistently</u> use their definitions. Failure to consistently use a definition is often a bigger problem than defining a term.

These definitional issues are usually more important in communicating about the nature and scope of the crime problem than in investigating and solving the crime. They are also extremely important when conducting, evaluating, analyzing, and comparing research. Investigators need to be aware of these definitional variations so that they can intelligently communicate about the problem without losing credibility. They need to understand that statistics, including probabilities, have limitations that include predictive utility.

Law enforcement supervisors cannot respond to community concerns and develop effective strategies unless the problems are accurately defined and consistently measured. In summary, investigators must be as objective as possible and should avoid the use of emotion-laden terminology. Whereas it is understood and expected that friends and family members of victims—as well as those related to offenders—can display such emotion, similar responses from law enforcement are discouraged.

## Case Illustration

A white male in his early 30s was on trial in a case involving the abduction, sexual assault, and murder of a 10-year-old white female. During the trial the defense was allowed to present evidence of an alternative theory of the crime. This included testimony by two expert witnesses. One essentially testified that the research indicated young children are most often murdered by family members. The other essentially testified that child molesters often sexually victimize both male and female children. The defense then introduced evidence about and called as a witness the victim's step-grandfather. This man had been convicted of molesting young adolescent boys he met and groomed through a youth-serving organization. Although he denied involvement in the murder of his granddaughter, unlike the defendant actually on trial, his prior criminal activity was admissible to impeach his denials.

One of the authors (KL) was then allowed to testify as a rebuttal expert witness based on his experience and knowledge of the relevant research. He testified that the research most applicable and relevant to this case would focus on comparable cases in which female children around the age of 10 were abducted, and reported missing, and sexually victimized, and murdered. He noted that research about children of unspecified ages either sexually victimized, or abducted, or missing, or murdered was far less applicable and relevant. For example, research indicates family members are the best suspects in cases involving the murder of children <12 years old

**unless** the child victim was sexually victimized. Although it is accurate that some child molesters victimize both males and females, it is much less accurate that a child molester with a demonstrated ability to nonviolently access and control child victims through the use of grooming would violently abduct and murder a child victim. The variation in the method of access and control is more significant than the variation in the gender of the victim.

Experience and the consensus of the known research on comparable cases with the same significant elements of this specific case indicate the offender would most likely be a white male, who was a stranger to the victim, was socially and sexually inadequate, had a history of violence, lived alone or with his parents in the area, and had little non-offense contact with children. These behavior patterns accurately fit the defendant, but not the alleged alternative suspect. Although such "profiling" testimony may not have been admissible as evidence during the case-in-chief, it was admissible as rebuttal to the alternative theory advanced by the defense. Based on the total overwhelming evidence in the case, including DNA, the defendant was convicted and sentenced to death. Definitions and their consistent use were important in accurately applying experience and the research to this analysis.

## Child

What is a *child*? The answer to this seemingly simple question can be confusing and complex. It is not clear by either legal or societal standards when childhood begins and when it ends. Is a fetus, a youth, or an adolescent a child? If adolescents are children, then a phrase like "children and adolescents" is redundant and confusing. There clearly can be a conflict between the law and society when it comes to defining a child. Who is considered a child can be based on the law, clinical criteria, sexual development, mental/emotional maturity, or parental perspective.

Sympathy for child victims is often inversely proportional to their age and sexual development.

The main difficulty is with the 13- to 17-year-old age group. They are the child victims most likely to look, act, and have sex drives similar to adults, and they may or may not be considered children under all laws or by society. There can also be national, cultural, and ethnic variations in attitudes and/or practices regarding who is considered a child. Most estimates and incidence studies of missing children, such as NISMART, define and count adolescents as children. Many people, however, using or hearing the term *missing child* are probably referring to or thinking about children 12 years of age or younger. Even classic avoidance advice such as "never leave your children unattended" seems difficult to apply to the high percentage of child abduction victims who are teenagers.

The determination of exactly who is a *child* is about more than just parental fear and emotional appeal. Variations in definition can result in different research findings. More important, unlike children, adults have the right to be missing and can consent to a wide variety of sexual activity. Even the choice between the terms *molestation* and *rape* when referring to the sexual assault of children seems to be significant. The term *rape* is often chosen not because of a specific act, but for emotional emphasis or to define the victim more as a female than as a child. If rape is defined as penetration without consent and the legal essence of being a child is that children cannot consent to such sexual activity, then it can be unclear precisely what it means to *rape* a child. If it is a reference to a specific act, maybe it would be better to clearly state the act. If it is a reference to the lack of consent, this would seem to be an attempt to distinguish between children who consent to sex and those who do not. This implies that children who are tricked, manipulated, or seduced to obtain their consent or cooperation are somehow less victimized. In fact, in some instances, such compliance by a child could change the nature of the crime or reduce it to a misdemeanor. In some respects, such compliant child victims could be more traumatized over time as they try to sort out guilt over why they "allowed" their offenders to abduct or molest them or why they "cooperated" rather than actively resisting. This is aggravated

by societal attitudes and prevention programs that focus only on "unwanted" sexual activity and telling potential child victims to always avoid sexual victimization by saying, "No," yelling, and telling (Lanning, 2005; Lanning, 2010).

Whether a child resisted, said "No," was physically overpowered, immediately reported it or even enjoyed the sexual activity are not necessarily elements in determining if an adult criminally sexually victimized the child. The issue of consent, either for sexual activity or for their disappearance is always a bigger problem in cases involving adolescent children. With sexual activity between children and adults there can be a crime even if the child cooperates or "consents." But the reality of age of consent is not so simple. Age of consent can vary depending on the type of sexual activity, individuals involved, and their age difference. At what age can a child consent to get married, engage in sexual activity, appear in sexually explicit visual images, or leave home to have sex with an unrelated adult without parental permission? Federal case law seems to suggest that the consent of a 14-year-old who crosses state lines after running off and having sex with a 40-year-old man she met on the Internet may be a valid defense for a kidnapping charge, but not for a sexual assault charge. As long as the child was not lured under relevant false pretenses, such a case may not legally constitute abduction.

Legal definitions of who is a child vary from state to state and even statute to statute in the same state, especially when dealing with adolescent victims. To determine who is a child, law enforcement officers must turn to the law. The penal code will legally define who is a child or minor. Different statutes, however, (e.g., age of consent laws, child pornography laws) applying to the same case can define a child differently, even when applied to the same case. To complicate matters, law enforcement officers and others must deal with their own perceptions as well as those of the jury and society as a whole. As previously stated, children are generally defined as individuals who have not yet reached their 18th birthday. Although this is the current politically correct definition, legal protections for children

engaged in sexual activity can vary especially during their adolescent years.

One of the problems in using a broad but sentimentally appealing definition of a child is that it lumps together individuals who may be more unalike than alike. In fact, 16-year-olds may be socially and physically more like 26-year-old young adults than 6-year-old children. Pubescent teenagers can be viable sexual targets of a much larger population of sex offenders. This is particularly relevant in child abduction cases. In sexual assaults involving minimal verbal interaction (e.g., many sexually motivated abductions) the interpersonal immaturity of a teenager is essentially meaningless. Their physical maturity becomes the overriding factor for many offenders. NISMART-2 estimate that teenagers (60–80%) and females (almost 70%) are by far the most frequent victims of both nonfamily abductions and stereotypical kidnappings. NISMART-3 estimates that in *stereotypical kidnappings*, more than half of the child victims were adolescents with about 81% being girls and about 51% being adolescent girls.

Another related issue concerns the age difference between the child victim and the perpetrator. The general perception is to assume the offender is a significantly older adult. This is often not true, especially when referring to adolescent victims (Finkelhor & Ormrod, 2001). Children abducted in a sexual context by an offender who is also a child or peer are considered victims of sexually motivated child abduction. The homicide rate for children is highest between birth and age 4 and between age 13 and 17. From 0 to 4, the most likely perpetrator is a family member and the least likely is a stranger. From 13 to 17, the most likely perpetrator is an acquaintance and the least likely is a family member (Finkelhor & Dziuba-Leatherman, 1994).

## Abduction/Missing Children

Much of the current attention on abducted children arises from concern and publicity about *missing children*. For many, the terms *abduction* and *missing* have become almost synonymous.

Most missing children, however, are not abducted (e.g., runaways, throwaways, lost or injured) and many abducted children are not missing. Some children had been missing for other reasons when they were abducted. To make it more confusing, some indiscriminately use additional related terms such as like *gone*, *lost*, *vanished*, and *disappeared*.

Some professionals suggest a missing child could be defined as any child who is not where he or she is supposed to be. Although emotionally appealing, by this definition almost every child in America is a missing child during any substantial time period. Others suggest that law enforcement treat every missing child as if he or she was abducted by a nonfamily member until they can prove otherwise. Again, this is emotionally appealing but unrealistic and not likely to happen considering the large number of children who are *missing*, sometimes repeatedly, for reasons other than nonfamily abduction.

NISMART-1 estimated 3200–4600 *legal definition* nonfamily abductions of children annually in the USA. NISMART-2 estimated that there are 58,200 child victims of non-family abduction annually. It defined such abductions more broadly than *stereotypical kidnappings*, to include all nonfamily perpetrators (friends and acquaintances as well as strangers) and crimes involving lesser amounts of forced movement or detention in addition to the more serious crimes entailed in *stereotypical kidnappings*. In spite of this significant difference in numbers, because of the different methods used in the studies, NISMART-2 results do not necessarily indicate an increase in abductions by nonfamily members.

The typical nonfamily or stranger child abduction is actually a relatively brief event in which the child is usually returned before anyone had time to realize the child was even missing. Because the vast majority of these abductions are of short duration, the absence is usually not noted before the return of the child. We refer to these as *short-term abductions*. These children are often, by common definition, not really missing. To be missing, the child's whereabouts must be unknown and someone (i.e., parents, family, caretakers, and law enforcement) must take note of that fact.

NISMART-2 clearly states, "Despite confusion about the meaning of abduction and the impression conveyed by notorious cases, an abduction does not necessarily imply that a child is missing. For example, a child can be abducted on the way home from school, dragged into a remote area, sexually assaulted, and released without being missed by a caretaker or reported as missing to any law enforcement agency. Even in more serious or lengthier stereotypical kidnappings, the victim will not qualify as a missing child if no one notices the child's absence or if the discovery of the child's body is the first evidence of the episode." NISMART-2 indicates that only an estimated 21% of all nonfamily abducted children were even reported to law enforcement as missing.

As previously stated, of the total nonfamily abductions, NISMART-1 estimates 200–300, NISMART-2 estimates 115, and NISMART-3 estimates 105 are *stereotypical kidnappings* or what we also refer to as *long-term abductions*. Almost by definition, these children are more often both abducted and missing. NISMART-3, however, cautions that even a child who is "stereotypically kidnapped is not necessarily a missing child, although many of these episodes do involve children missing for lengthy periods of time." It points out that "the discovery of the child's body may be the first evidence of the episode." The NISMART data, therefore, suggests only a small portion of all nonfamily abducted children are technically *missing children*. NISMART-3 estimates that no one missed about 31% of the stereotypically kidnapped children and that, even in some of these extreme abduction cases, children were kidnapped and then returned before they were missed. In short-term abduction cases, the motivation is easier to evaluate and the investigation usually focuses on the sexual assault. In long-term abduction cases, the motivation is harder to evaluate and the investigation usually focuses on finding the missing child, with the issue of motivation coming into play later on, such as when charging the offender or preparing for trial (NCMEC, 2016).

Abduction can involve not only luring and forcibly moving but also preventing the return of

a child. Some children go with the offender voluntarily with parental knowledge or permission, but when they fail to return at a designated time they can become abducted children. Law enforcement agencies almost always respond with maximum resources when the nonfamily abduction of a child is clearly known. However, in many missing children cases, especially those involving teenagers, determining if an abduction even took place can be difficult. Without reliable witnesses, a variety of factors (e.g., the tender age, past history, family situation, and process of elimination) about a missing child are often considered in deciding if an abduction has occurred. There have been cases where a missing child believed abducted by application of such factors was not. In one case, a missing young boy believed to have been abducted actually had accidently suffocated after he climbed into and got stuck in a storage compartment in the family station wagon parked on the driveway. He had hidden there to avoid punishment for running out of the house and being late. Sadly, during a media interview about the ongoing search for the presumably abducted child, his parents and investigators were leaning against this car with the boy only inches away.

Application of such objective evaluation factors is reasonable and defensible. However, all possibilities must be considered. Not all missing children are abducted by nonfamily members. Not all nonfamily child abductions are sexually motivated. When investigators typically respond to a report of a missing child, they need to carefully consider evidence indicating the child was in fact abducted and, if abducted, why.

Sadly, it is frequently more difficult to evaluate the abduction probabilities of children missing from families that lead dysfunctional or chaotic lifestyles. Children who repeatedly come and go at sporadic times without parental knowledge or permission or who spend extended time away from home with nonfamily members make such evaluations challenging. Although parents would seemingly know their children best, because of their emotional involvement the information they confidently furnish can turn out to be inaccurate. In one case, parents emphatically identified their child as being in a discovered photograph of a child tied up in a van. Follow-up investigation positively determined it was not their child.

An issue in determining whether or not a true abduction took place is the possibility of consent by an adolescent child. A runaway or lured away child, however, can easily become an abducted child when prevented from returning. A sexual assault itself can include denial of freedom of movement for the victim, but such included acts are typically not considered a separate offense of abduction.

## Attempted Child Abductions

Attempted child abductions are hard to evaluate (some estimates available online from www.missingkids.com/AttemptedAbductions) because disproportionate societal fear and concern can result in inaccurate reports and misperception of behavior or events. The behavior of an offender engaged in exhibitionism (indecent exposure), voyeurism (peeping), or scatologia (obscene talk) could be easily perceived by a child or parent as an attempted abduction even if the offender had no intent to abduct. In addition, some children falsely report or embellish attempted abductions to escape responsibility for improper behavior (e.g., being late, going to prohibited location) or to meet expectations for more acceptable and stereotypical victimization (e.g., forced against their will). Addressing and evaluating such possibly inaccurate or false (in part or total) reports can be a sensitive and difficult task for investigators. It is important to realize, however, that any attempted abduction could become a successful short-term abduction and any short-term abduction could become a long-term abduction. Solving a seemingly minor attempted abduction case might even result in solving a more significant or high profile child abduction. Considering the inadequacy of so many child abductors, it is not surprising they might have numerous failed prior attempts. On the other hand, alleged attempted child abductions should not be used as a reliable indicator of the nature and likelihood of long-term abducted missing children.

Based on the NISMART-1 estimate of 200–300 *stereotypical kidnappings* and 114,600 attempted abductions, the number of such child kidnappings is only approximately 0.17–0.26% of the number of attempted child abductions. Obviously many of these attempts might have resulted in short-term child abductions. In our opinion and experience, *attempted child abductions*, *short-term child abductions*, and *long-term child abductions* ("missing children") often have distinct differences. Many attempted abductions are really attempted sex offenses (noncontact or contact) and are usually investigated as such by police. Such cases may have little in common with long-term missing children cases.

## Molestation

From a motive perspective, nonfamily abductions can be divided into six broad categories:

*Nontraditional*—usually very young children abducted predominately by a woman to fill a perceived void in the offender's life—often not simply her desire for a baby to love but her male companion's desire for a child or the abductor's desire to provide her companion not with a child but with **his** child (see NCMEC, 2003). Although they are technically nonfamily or stranger abductions, these cases obviously involve significantly different offender profiles and motivations. Such cases are often referred to as *infant abductions*, but they are more accurately defined by the unusual motivation. Although rare, infant abductions can be motivated by money or sex. Children other than infants can be abducted for these unusual or *nontraditional* motives.

*Ransom*—children abducted to obtain financial benefit from the victim's family. These are often easier to solve because the abductor must make some contact with the family. At least in the USA, ransom cases are quite rare. Occasionally, however, illicit drug dealers have abducted children of their drug customers who were behind on their payments for drugs fronted to them, and children were held ransom until the debt was satisfied. An unknown number of these cases go unreported by the parents or caretakers of the victims because they do not want to jeopardize their own safety and security, or to avoid scrutiny for their involvement in the illegal drug trade.

*Profit*—children abducted to obtain financial benefit from a third party. Most for-profit trafficking in children involves buying (not abducting) children from parents or legal guardians. Profit cases involving forcible abduction are rare in the USA. Cases involving some kind of deception (e.g., telling mother her baby died at birth) are less rare. Some cases involving human trafficking (child prostitution) can involve child abduction; others involve more seduction and manipulation by the offender.

*Sexual*—children abducted primarily for the sexual gratification of the offender. How this motivation is determined is discussed later in this chapter.

*Killing*—children abducted to be killed by the offender. For some individuals, the act of killing itself can bring sexual arousal and/or gratification. From an investigative analysis perspective, there is a difference between a murderer who happens to sexually assault his victim and a molester who happens to murder his victim.

*Miscellaneous criminal*—children abducted for a wide variety of reasons related to criminal activity. Common examples include crimes such as stealing a vehicle with a child in it, taking a child hostage to facilitate escape, abducting a child in retaliation for a personal or criminal disagreement or to prevent testimony in court, etc.

A possible seventh category, *political* motivation, could include children abducted for political or governmental gain or advantage. Although some conspiracy theorists might disagree, we are unaware of any documented cases of such crimes in the USA. Such cases are far more common in other parts of the world.

This current discussion will focus on sexually motivated (*molestation*) abductions of children

with some limited focus on killing-motivated cases. NISMART-1 estimates that two-thirds or more of the short-term abductions involved sexual assault. NISMART-2 estimates nearly half of all child victims of *stereotypical kidnappings* and nonfamily abductions were sexually assaulted by the perpetrator. NISMART-3 estimates 63% of victims of *stereotypical kidnappings* were sexually assaulted during detainment. What exactly is a sexually motivated child abduction? In theory, it could be determined by the motivation for the abduction *or* by specific acts performed during or after the abduction. Defining sexual activity is not as easy as many people think and the true nature of motivations and behaviors may not always be clear and obvious. Is a sex crime determined by the motivation for the acts or the specific acts performed? Sexual victimization of children can run the gamut of the so-called normal sexual acts from fondling to intercourse; however, looking solely at the nature of the acts performed does not necessarily answer this question. The sexual motivation might also include being subjected to sex trafficking.

Seemingly nonsexual behaviors (e.g., abducting, inflicting pain, killing) can be in the service of sexual needs and may inherently bring sexual arousal and/or gratification. Sexual gratification may be derived from acts such as stabbing, bondage, sadomasochism, urination, defecation, and indecent exposure. Some would argue, therefore, that a sex crime is one motivated by sexual gratification (MacMartin & Wood, 2005; Beauregard et al., 2008). However, it is noteworthy that seemingly sexual behaviors (i.e., vaginal or anal intercourse) can be in the service of nonsexual needs and may, in fact, be actually motivated more by power and/or anger. This is why it is often said that *rape*, a crime typically requiring sexual penetration, is not a sex crime but a crime of violence. Yet, even if motivated by nonsexual needs, such acts may still be considered sexual assaults by the law.

Sexual acts or assaults can be overt (e.g., vaginal or anal penetration by a penis or object) and in such cases the intent may be easy or unnecessary (i.e., strict liability) to prove in court. Other behaviors can be sexual acts if the intent or motivation of the individual can be proven. They can be more covert (e.g., touching, kissing, and photographing) and the intent therefore may be difficult even for victims to recognize and for investigators/prosecutors to prove. In criminal cases, the primary criteria most often used in determining sexual assault are body orifice penetration and presence of seminal fluid on or in the body or at the crime scene. However, a variety of acts not generally associated with sex (e.g., use of restraints, hair cutting, multiple stab wounds, urination) **might** behaviorally constitute sexual activity or assault. A wide variety of behavior involving physical and emotional torture can be sexual acts if done for the sexual gratification of a sexual sadist. There is a difference between tying up a child for nonsexual reasons (i.e., part of a game of "cowboys and Indians," control device, and prevent escape) and binding a child for sexual gratification (i.e., sexual bondage); this difference may not be obvious. Some acts (e.g., listening to children urinate, talking to children, and photographing children on the playground) may not be criminal even if sexual intent can be proven. They simply involve behavior not proscribed in the penal code. Mental health professionals refer to such weird or unusual sexual behaviors *paraphilias*.

Some cases can involve unimaginably bizarre motivations. In one case a young female child was abducted by two offenders with the hope she later would bear male children whom they preferred and whom they could then molest without interference. Investigators must also consider who was the **true** intended victim of the abduction. Although a specific child was abducted, the actual intended victim might be society, the community, children in general, any child resembling the victim, or the family of the victim. Although difficult to determine, the answer to this question may play a large role in whether or how quickly the case can be solved. Of course, an offender linked to the victim will be easier to identify.

How does an investigator prove intent or motivation? What if the offender has more than one motivation? If there are multiple offenders, whose

motivation defines the crime? In some cases, it can be difficult to determine motivation even from the offender after the case is solved. We know offenders can be more reluctant to admit sexual motives than other types of motives (e.g., profit, revenge, anger, power). Some offenders may not even realize their true motivation. An offender may request a ridiculously small ransom for a child he abducted to molest in an apparent attempt to convince others, but primarily himself, that he is not a sex offender. If a suspect or subject is identified, his pornography and erotica collection is the single best indicator of what he **wants** to do. It is not necessarily the best indicator of what he **did** or **will** do. If such a collection has been recovered, it must be reviewed, analyzed, and synopsized (Lanning, 2010).

Motivation and sexual assault are generally easier to evaluate in short-term abduction cases. If a child is returned alive, hopefully he or she can describe the offender's behavior and/or can be examined by a qualified physician. If the child is recovered dead, a good crime scene examination and autopsy may help determine motivation and help indicate sexual assault, if in fact it occurred. If the child remains missing, however, motivation often is hard to know with certainty and investigators must keep an open mind and not pursue only one investigative possibility.

When evaluating the significance and relevance of offender behavior and children's allegations, interveners should always consider both the activity and its possible motivations. Deciding or determining that an abduction is sexually motivated may not always be essential in an investigation or prosecution. In long-term abduction cases, it usually plays a major role in identifying and evaluating potential suspects. The sexual nature of the abduction could be important in showing motivation and obtaining a conviction in a court of law and in determining or qualifying for a particular sentence after a conviction. Certain activity (criminal and noncriminal) might even constitute legally admissible prior or subsequent like acts to prove motivation. The sexual nature of the abduction is also important in discussions or research about the nature and scope of a particular crime problem.

## Nonfamily

These cases are often called *stranger abductions*, a misleading term. The concept of exactly who is a stranger is often difficult for young and even older children to understand. As discussed, who is a stranger should be viewed on a continuum that can range from someone never seen before and unknown, to someone seen but nameless, to someone named but unknown, to someone named and slightly known, and anyone in between. More importantly, the term *stranger* has little criminal justice significance and children are sometimes criminally abducted or held by well-known acquaintances.

These cases are more accurately called *nonfamily* to differentiate them from the larger and dynamically and legally different category of family, parental, or custodial abductions. In today's world, even this distinction is not always easy to make. Many children live in nontraditional families with stepparents, stepgrandparents, stepsiblings, parents' live-in lovers, communes, cults, etc. These relationships can create confusion and legal problems concerning permission, consent, and child abduction.

Although less frequent than crimes by family and acquaintances, crimes committed by strangers made up about 10% of the violent crimes against children reported to law enforcement in a recent year (Finkelhor & Shattuck, 2012). NISMART-3 rightly points out that although the public should not be frightened about the dangers of *stereotypical kidnapping*, "it is not appropriate to conclude that 'stranger danger' is a myth and that children need no education about such crimes."

## Child Molesters Who Abduct

Why do some child molesters abduct their victims but most do not? Children can generally be easily controlled and manipulated by adults without physical force. Child molesters who nonviolently seduce or coerce their victims frequently come under minimal investigative scrutiny while those who forcibly abduct and

physically injure their victims usually become subjects of large-scale, intensive investigations. From the offender's point of view, it seems to make little sense to abduct a child victim. An FBI study suggests that the use of abduction may stem primarily from the offender's poor interpersonal and social skills and their related inability to control their victims. Sexually motivated child abductors tend to be socially and/or sexually inadequate individuals with less non-offense contact with children (Prentky et al., 1991).

As will be discussed further, some sex offenders with good interpersonal skills might engage in sexually motivated child abduction due to their sexually sadistic needs, embarrassment over deviant sexual urges, or fear of disclosure of sexual activity with a child. Offenders with good interpersonal skills and a strong sexual preference for children might abduct children if their seduction efforts fail or they want to fulfill fantasies about a long-term relationship with a child away from the prying eyes of judgmental adults (i.e., "wouldn't it be nice"). As previously discussed, this is further complicated by the fact that in abduction cases physical maturity is usually more important than emotional maturity making pubescent adolescent children viable abduction targets for a larger and more diverse number of sex offenders.

Perpetrators of sexually motivated nonfamily child abduction appear to be a widely diverse population of offenders. This may be due in part to the broad definition of the term *nonfamily abduction*. The use of physical violence and deadly force is usually not necessary to sexually victimize a child. Most child molesters seduce, manipulate, or coerce children known or related to them. When committing a forcible sexual assault and abduction, however, for some offenders recognize it is criminally smarter to target strangers (i.e., victims to whom you cannot be linked).

## One Offender Typology

For most people the term *pedophile* is simply a fancy word for a child molester. However, it is also related to a psychiatric diagnosis. It can sometimes be useful for criminal justice professionals to know the specific diagnostic criteria for *pedophilic disorder* and condition criteria for *pedophilia* as set forth in the 2013 *Diagnostic and Statistical Manual of Mental Disorders*, *5th Edition*, *(DSM-5®)* of the American Psychiatric Association. The *DSM-5* has changed the use of these terms from prior editions. Although no longer a diagnosis by itself, *pedophilia* is now a necessary condition for the diagnosis of *pedophilic disorder*. The condition of *pedophilia* requires there be fantasies, urges, **or** behaviors that are recurrent, intense, **and** sexually arousing and all of which involve **prepubescent** children, generally **age 13** or younger (emphasis added). The legal definition and psychiatric definition of who is a child are not the same. For the diagnosis of *pedophilic disorder*, an individual must also act on these urges or the sexual urges or fantasies must cause marked distress or interpersonal difficulty. From a mental health perspective, a *pedophile* can be an individual with either the condition (*pedophilia*) or the diagnosis (*pedophilic disorder*).

The condition of *pedophilia* alone, however, does not necessarily justify or require clinical intervention. This appears to be a clear position by the American Psychiatric Association that not all pedophiles are child molesters. According to the *DSM-5*, a pedophile who only has fantasies or urges that are not distressing to him may not even require treatment. The *DSM-5*, however, does not elaborate on exactly what constitutes having "acted on their impulses" or "interpersonal difficulty." Does it matter if the difficulties are not caused by the specific fantasies or urges but by family concerns or being the subject of a criminal investigation? This distinction between the condition and the disorder would be most relevant to investigators if the basis for the diagnosis of *pedophilic disorder* (e.g., act on these urges) involves illegal behavior. It could be argued, however, that anyone with recurrent and intense desire for sexual behaviors involving underage persons unable to give legal consent should merit the diagnosis of *pedophilic disorder*. These, however, are not the mental health criteria.

The absence of **any** of the key criteria technically could preclude the diagnosis. For example, an individual who has a strong sexual preference for and abducts, engages in sex with, or communicates online with large numbers of 14-year-olds could correctly be evaluated by a mental-health professional as **not** having the diagnosis *pedophilic disorder* or even the condition *pedophilia*. In spite of this, some mental-health professionals apply the diagnosis to those with a sexual preference for pubescent teenagers, while others do not.

An individual who has over a period of time collected child-pornography images portraying **prepubescent** children but never engaged in hands-on molestation might also still fit the diagnostic criteria for *pedophilic disorder*. The *DSM-5* criteria clearly state, "fantasies, sexual urges, **or** behaviors" (emphasis added) and not "and behavior." The *DSM-5* specifically mentions extensive use of child pornography as a useful diagnostic indicator of the disorder. It does not state, however, if this indicator includes use of child pornography images of pubescent minors. In addition, reaching puberty is a complex phenomenon that does not occur overnight or during everyone's 13th year.

For investigative purposes, one of the authors (KL) developed and has previously published a motivation-based typology of child molesters titled *Child Molesters: A Behavioral Analysis* published by NCMEC (*see* Lanning, 2010 for a more complete discussion). Although this typology was not originally intended to be used in abduction cases, research and experience indicates considerable possible application. Its potential application to sexually motivated child abduction will be briefly summarized. This typology distinguishes between Situational and Preferential Sex Offenders along a motivational continuum. Motivation is most often evaluated and determined from behavior as well as other indicators and evidence. Within Situational Offenders, three major patterns of behavior emerge: Regressed, Morally Indiscriminate, and Inadequate. Within Preferential Offenders, four major patterns of behavior emerge: Seduction, Introverted, Sadistic, and Diverse.

**Situational-type sex offenders** victimizing children typically do not have a true **sexual** preference for children (i.e., pedophiles). They engage in sex with children in certain situations for varied and sometimes complex reasons. Situational sex offenders frequently molest readily available children they have access to and control over. Pubescent teenagers are high-risk, viable sexual targets. Younger children also may be targeted because they are weak, vulnerable, or available.

The situational-type child molesters do **not** usually have compulsive-paraphilic sexual preferences including a preference for children. They tend to be less intelligent and are over represented in lower socioeconomic groups. Their criminal sexual behavior tends to be in the service of basic sexual needs (i.e., "horniness" and lust) or nonsexual needs (i.e., power and anger). Their sexual behavior is often opportunistic and impulsive, but primarily thought-driven. They are more likely to consider the risks involved in their behavior, but often make stupid or sloppy mistakes. Their verbal skills are usually lower and they are more likely to use physical violence to control victims. They are more likely to have a history of varied crimes against both person and property. Their victims tend to be targeted based primarily on availability and opportunity. They usually have less non-offense contact with children.

Their patterns of behavior are more likely to involve the concept of *Method of Operation* (MO) that is well known to most police officers. MO is a pattern of behavior engaged in by an offender because it works and will help him get away with the crime. MO is fueled by thought and deliberation. Most offenders change and can improve their MO over time and with experience.

**Regressed** situational offenders usually have low self-esteem and poor coping skills, and they turn to children as a sexual substitute for the preferred peer sex partner. Precipitating stress may play a bigger role in their molesting behavior. Their main victim criterion seems to be availability.

**Morally Indiscriminate** situational offenders sexually victimize children as part of a general pattern of abuse in their lives. Mental-health

clinicians refer to this type of individual as a *psychopath* or having *antisocial personality disorder*. They are users and abusers of people. They may abuse their wives, friends, and coworkers. They lie, cheat, or steal whenever they think they can get away with it. They molest children for a simple reason—"Why not?" They may select children, especially adolescents, simply because they have the opportunity and think they can get away with it. They typically use force, lures, or manipulation to obtain their victims, but not all of then are glib or charming. They may abduct their victims using trickery or physical force. Because they are impulsive individuals whose conscience is inconsistent with society's standards, they are at especially high risk to molest pubescent children. Such acts may be criminal but not necessarily sexually deviant. They frequently access, obtain, view, read, and collect materials with violent themes (including various Internet images/stories, detective magazines, or adult pornography of a violent nature).

**Inadequate** situational offenders are hard to precisely define and include those suffering from psychoses, eccentric personality disorders, mental retardation, and senility. In layperson's terms such an offender is the social misfit, the oddball, the withdrawn, the unusual. He might be a shy teenager who has no friends of his own age or the eccentric loner who still lives with his parents. Although most such individuals are harmless, some can be child molesters and, in a few cases, even child killers. These offenders seem to become sexually involved with children out of insecurity or curiosity. They find children to be nonthreatening objects with whom they can explore their sexual interests. The child victim could be a random stranger. Some of these individuals find it difficult to express anger and hostility, which then builds until it explodes—possibly against their child victim. Because of mental or emotional problems, some take out their frustration in cruel sexual torture. These offenders usually lack the interpersonal skill to effectively groom or seduce their child victims, often only possessing only rudimentary or even primitive abilities in that regard.

Almost any child molester might be capable of violence or even murder to avoid identification. With a few notable exceptions, most of the sexually motivated child murderers profiled and assessed by the FBI have involved situational-type child molesters who display the morally indiscriminate and inadequate patterns of behavior. Low social competence seems to be the most significant risk factor in why a child molester might abduct his victims (NCMEC, 1995).

**Preferential-type sex offenders** typically engage in criminal sexual behavior in the service of their *deviant* sexual needs, often described as paraphilias within the mental health profession. This behavior is often persistent and compulsive and is primarily fantasy-driven. Repeated fantasy over time then fuels the needs. They are more likely to consider these needs rather than the risks involved and therefore make need-driven mistakes that often seem almost stupid. Their criminal sexual behavior is often rooted in their sexual fantasies and a related need to turn fantasy into reality. Their verbal skills are usually higher. As this descriptive term implies, preferential-type sex offenders have specific sexual preferences or paraphilias.

Those with a preference for children could be called *pedophiles*. Those with a preference for peeping could be called *voyeurs*, and those with a preference for suffering could be called *sadists*. Our use of the term *preferential-type sex offender* is a way to avoid use of diagnostic terminology. Some preferential-type sex offenders **without** a preference for children do, however, molest children. They might do so to carry out their peculiar sexual fantasies and preferences with young, less threatening, less judgmental, and highly vulnerable victims they meet in person or online. Some of these offenders' sexual activity with children may involve deviant acts they are embarrassed or ashamed to request or do with a preferred adult partner. Such offenders, even if they do not have a significant sexual preference for children, are considered preferential sex offenders and, therefore, engage in similar patterns of need-driven behavior. Preferential-type sex offenders are more likely to view, be aroused by, and collect pornography with specific sexual themes.

The patterns of behavior of Preferential Child Molesters are more likely to involve the concept of sexual *ritual* that is less known to most police officers. Sexual ritual is nothing more than repeatedly engaging in an act or series of acts in a certain manner because of a sexual *need*. In order to become aroused and/or gratified, a person must engage in the act in a certain way. Ritual is necessary to the offender but not to the successful commission of the crime. In fact, instead of facilitating the crime, it often increases the odds of identification, apprehension, and conviction. Ritual is fueled by erotic imagery and fantasy and can be bizarre in nature. Most offenders find it difficult to change and modify ritual, even when their experience tells them they should.

Depending on an offender's intention, blindfolding or tying up a victim could be either *MO* or *ritual*. Tying up someone so he or she cannot resist or escape is an example of *MO*. Tying up someone for sexual gratification is called bondage and is an example of *ritual*. The ability to interpret this distinction is in the detailed analysis of the identified behavior. Investigators must, therefore, keep an open mind and continually accumulate and evaluate even the small details of offender physical, sexual, and verbal behavior.

**Seduction** preferential child molesters, in particular, generally have an established means or method of access to children and are usually high in non-offense contact with children. They tend to spend much of their lives trying to convince others, but primarily themselves, that they are good people and not evil sexual deviants. Because of their typical ability to access and control children through the seduction process and their frequent need to rationalize their behavior as consensual, Seduction Preferential Child Molesters rarely forcibly abduct children. In fact, they may even inject themselves into the issue and investigation of missing children as volunteers, searchers, operators of runaway children shelters, etc. as a way to rationalize and justify their sexual interest in children as worthwhile. When identified by police, such offenders often have collections of photographs and information about missing children. It is frequently assumed that this is evidence of involvement in the chil-

dren's abductions. While possible, a far more likely explanation is that the material is part of their rationalization process whereby they contrast their consensual sexual activity with these forced abductions and by showing their concern for truly abused children. It is hard for them to rationalize and validate their sexual activity with children if they use threats, physical force, and ignore screams for help or pleas to stop. This child molester is likely to use threats and physical violence only to avoid identification and disclosure **or** prevent a victim from leaving before he is ready to discard the victim.

**Introverted** preferential child molesters are most like the old stereotype of the child molester in that they are more likely to hang around playgrounds and other areas where children congregate, watching them or engaging them in brief sexual encounters. Because they lack the interpersonal skills to seduce them, they typically engage in a minimal amount of verbal communication with their victims and usually molest children they do not know, especially young children. They are similar to the inadequate situational-type child molester except they have more definite deviant sexual preferences, and their selection of children as victims is more foreseeable. Their victims could be acquaintances, but they are less likely to be simultaneously involved with multiple child victims.

**Sadistic** preferential child molesters are sexually aroused by their victims' responses to their infliction of psychological and physical pain, humiliation, or suffering. They may use lures or force to gain access to and control of their victims. They are more likely than other preferential-type child molesters to abduct and even murder their victims. In order to escape detection, sexual sadists, even ones with extraordinary interpersonal skills, may try to abduct victims who are not acquaintances and to whom they cannot be linked. There have been some cases where seduction acquaintance molesters have become sadistic molesters. It is not known whether the sadistic needs developed late or were always there and surfaced for some reason (e.g., inhibitions overcome, sadistic interests fueled and validated on the Internet). Once a sadistic offender engages in

**severe** sexual sadism with an acquaintance child victim it is difficult to prevent disclosure and escape identification without killing or otherwise disposing of the victim. Keeping a victim alive for a long time requires extraordinary physical control measures. In any case it is fortunate that sadistic child molesters do not appear to be large in number. Investigators must understand that being extremely cruel (e.g., physical abuse, control through violence) by itself is not the same as and does not necessarily indicate **sexual** sadism.

**Diverse** preferential child molesters were referred to as "sexually indiscriminate" in an earlier version of this typology. Although the previously described morally indiscriminate offenders can also be sexual experimenters, these diverse offenders differ in that they often appears to be discriminating in their behavior except when it comes to sex. They are the "try-sexual"—willing to try anything sexual they prefers. While they may have clearly defined paraphilic or sexual preferences such as bondage, peeping, and fetishism, they have no strong sexual preference for children. Children, especially adolescents, may be targeted because their appearance (e.g., shoes, clothing, and hair) appeals to the offender's sexual fetish. While Sadistic offenders could be included in this category, their criminal sexual behavior is so significant it merits its own category. The basic motivation of these diverse offenders in victimizing children is often sexual experimentation. Their main criteria for including children may be that they are new or less threatening. They usually involve children in their previously existing sexual interests and activity. Such offenders may victimize children as part of some humiliating, taboo, or forbidden sex. Although much of their paraphilic sexual activity with adults may not be criminal, such individuals may provide their children to other adults or use the children of other adults as part of group sex, spouse-swapping activity, or even as part of some bizarre sexual ritual. They may be involved in Internet communication with women whom they encourage to have sex with their own children as they watch online or send them any visual images taken of the sexual activity. Some of their sexual activity with children may involve

acts they are embarrassed or ashamed to request or do with a preferred adult partner.

The Morally Indiscriminate and Inadequate Situational Offenders and the Introverted, Diverse, and Sadistic Preferential Child Molesters are most likely to get involved in nonfamily abduction by kidnapping children with whom they have had little, if any, prior contact. In some cases, any violence that occurs may be a carefully planned component of the assault such as with a sadistic pedophile who is sexually aroused and gratified by the suffering of his child victims. The Seduction Preferential Child Molester is more likely to get involved in abduction by not allowing a child he knows and has seduced to return home. To repeat, almost any sex offender can become violent to avoid discovery or identification.

## Phases

Abduction by child molesters can be thought of in terms of four phases: (1) Build-up, (2) Abduction, (3) Post-Abduction, and (4) Recovery/Release. The elements of these phases vary depending on the type of offender involved and whether abduction occurred at the beginning of the sexual assault or the child was not returned after having been obtained without abduction.

1. *Build-up*—Repeated fantasy about sexual activity, especially when accompanied by masturbation, reinforces arousal patterns and creates needs. Whether or not it specifically includes children, the fantasy greatly influences the nature and content of the need. One need is to turn fantasy into reality. Need does not always result in behavior. A wide variety of precipitating stressors affect the desire and ability of the offender to control or act out these needs. Active validation (i.e., communicating with individuals who share or encourage one's urges), passive validation (i.e., collecting material that reinforces or advocates one's urges), and rationalization also help in giving in to these sexual needs. Finally, an opportunity to act out is either presented or is planned and carried out.

2. *Abduction*—Selecting a child victim who is a complete stranger or one who cannot be linked to the offender in any way is probably the single most important factor in determining whether an offender will get away with a child abduction. The *thought-driven* situational offender tends to follow an MO, consider risks, take advantage of opportunities, and select any target who fits within his victim profile. Mistakes are usually the result of being impulsive and sloppy. The *fantasy-driven* preferential offender tends to follow a ritual, have a script, and consider his needs. Fulfilling these needs may increase the risks he is willing to take to obtain specific victims and engage in specific acts. Mistakes are usually the result of being compulsive and need driven.

  In order to escape detection, a sexual sadist, even one with extraordinary interpersonal skills, may try to abduct victims to whom he cannot be linked. More important, however, are his needs to fulfill his fantasies and to feed off the pain and suffering of others. Some Seduction Preferential Child Molesters wind up abducting or not returning a child easily linked to them because they need the child all to themselves away from a judgmental society. Some long-term child abductions are really short-term molestations gone badly.

3. *Post-Abduction*—After a sexually motivated abduction, a child will be usually kept only long enough for the offender to engage in some amount of sexual activity. This is usually a brief period of time. However, fantasy or other needs (physical or psychological) may sometimes compel the offender to keep the child for a longer period of time. He can keep the child himself or give the child to someone else. Some offenders would like to believe they will now be able to live happily ever after with their victim. Obviously, certain skills and living arrangements are necessary to do this. For sexual sadists, keeping the child alive and conscious for some period of time is essential to their needs—dead people do not feel pain and humiliation. Part of their pleasure comes from total control and power over the victim.

In a nonfamily abduction case where the child does not leave or escape on his or her own and is kept alive for a long time, the offender must also have a long-term method of control beyond just typical threats and violence. This could involve the use of physical controls (i.e., remote location, soundproof room, underground chamber, or elaborate restraining devices) or one or more accomplices. It could also involve the relationship (and therefore the primary control techniques) between the offender and the child victim evolving and changing over time. The offender gradually moves from being a stranger using force to an acquaintance using seduction to a father-like or domestic figure using a family-like bond. In a few cases, the relationship progresses to the point that the abducted child assists the offender in committing serious crimes including abducting other victims. Prosecutors need to carefully consider the totality of circumstances and age of the child in deciding whether to hold such a child legally accountable for any criminal behavior. These cases can be complex and difficult to objectively evaluate.

Some prefer to believe this evolution-of-control mechanism is the result of a mysterious process called *brainwashing* or the *Stockholm Syndrome* (Julich, 2005). We see it as a perfectly understandable result of adult/child interaction and influence over time. A survival and interdependency bond may develop, a kind of adaptation or learned helplessness. This process can vary significantly based on the personality characteristics of both the offender and the victim. Although all the circumstances of this process and the age of the victim accomplice need to be considered, being abducted is not a limitless free pass to commit serious criminal acts with impunity.

Society often wants to judge the behavior of the victims and investigators in these child abduction cases by stereotypical but unrealistic standards. There are only a few known cases in which child victims of nonfamily, long-term, sexually motivated abductions

have survived for lengthy periods of time before being found alive. Many parents of such long missing children pray their children are among them. In our opinion, the victims who survived the odds did what worked for them and should not be judged by their prior efforts to resist and escape. One of the authors (JB) consulted on a case wherein an abductor took two siblings and held them in a remote area for several weeks, eventually killing one after repeatedly sexually assaulting both of them. Evidence recovered, along with statements from the surviving victim, indicated the offender created a dynamic in which the victims treated him almost like a father figure. In that sense they came to depend on him for their continued survival, but also for some measure of comfort and safety, despite the repeated abuse they suffered at his hands. Although extreme in some respects, this case is an example of what victims are able to do in order to survive, even as some individuals criticize their actions as contributing to the long-term nature of their victimization.

Long-term missing/abducted children cases are among the most difficult, frustrating, and emotionally draining cases for law enforcement. Their investigative response can and should be critiqued but in the total context of what was known at the time and with an informed understanding of such cases. The greatest accomplishment of almost any law enforcement investigator is to return a missing child to his or her parents, no matter how much time, effort, and even unjustified scrutiny, was involved.

4. *Recovery/Release*—In some cases, the abducted child will be recovered as a result of investigative efforts. More often the child is released when the offender is sexually finished with the child or the child escapes. An abductor can discard the child with no concern for how or if the child will get home. He can return the child to the location of the abduction or to the child's home or otherwise facilitate the child's recovery. Assisting the return of the child victim is fairly common in short-term abduction cases. Some victims are released because reality does not live up to the offender's fantasy. In one case an offender abducted an adolescent child, sexually assaulted and tortured her, traveled with her 3000 miles by car, forced her to assist him in another abduction of an adult woman, and then bought her a plane ticket and sent her home when she no longer fulfilled his sadistic fantasies. Some victims are released because of police pressure and media publicity. Conversely, some victims are killed for the exact same reasons.

An abductor may kill the child and dispose of the body in some manner. This can involve burying, discarding, or displaying the body. Offenders who abduct children to kill them are likely to more carefully dispose of the body. The deadly force used can occur before, during, or after the sexual acts or it can **be** a sexual act. A few abductors also then kill themselves. Whether investigators are looking for a murderer who happened to sexually assault his victim or for a molester who happened to murder his victim can be important. The end result for the victim and his or her family may be the same, but the focus of the investigation might be significantly different. Those who specifically abduct children specifically to kill them are more likely to be serial killers and have multiple victims. Linkage analysis of different victims would more important in such cases.

## Criminal Investigative Analysis

### Types of Cases

FBI research and our behavioral analysis experience will be applied to three investigative situations involving sexually motivated nonfamily child abductions (Beasley et al., 2009). These three situations are (1) child found alive, (2) child found dead, and (3) child still missing.

1. *Child Found Alive*—This is the most common outcome in nonfamily abduction cases. With a living victim, valuable information can usually be obtained from a detailed interview

with the child. Obviously, the timing of this interview and the amount of detail will be dependent on the age and developmental stage of the child and on the amount and duration of the emotional and physical trauma inflicted. Hazelwood's (1983) article should be consulted and modified for child victims to assist in obtaining needed information for investigative analysis of the offender. An important step involves determining and assessing the details (i.e., verbal, physical and sexual behavior) of what happened from the victim statement and a good forensic medical examination by a qualified physician assessing the kinds and sequence of behavior engaged in by the perpetrator.

Because many sexually motivated child abductors have a history of social (e.g., multiple jobs and failed relationships) and sexual (e.g., nuisance sex offenses, and failed assaults of adults) inadequacies, it is important for investigators to understand and evaluate the possible prior sexual behavior patterns of suspects. These patterns may involve noncriminal sexual activity with adults as well as the commission of the so-called nuisance sex offenses. The word *nuisance* is an unfortunate but descriptive term commonly applied to sex offenses that occur frequently and are viewed as causing little or no harm (i.e., financial loss or physical injury). Examples with which most investigators are familiar include window peepers (voyeurism), flashers (exhibitionism), and obscene callers (scatologia). Some of this behavior now occurs online. Offenders with known histories of nuisance sex offenses, even against adult victims, should be considered viable suspects. Peeping at adult women and sexually assaulting children can both be signs of sexual inadequacy.

Because their behavior patterns include low social competence and low non-offense contact with children, the abductors are often Inadequate Situational Child Molesters or Introverted Preferential Child Molesters. Seduction Preferential Child Molesters with a demonstrated ability to nonviolently manipulate children should be considered unlikely or weak suspects in short-term abduction cases. Of course, the investigative analysis and focus would be greatly influenced by the victim's interview and description of the offender's physical, verbal, and sexual behavior.

Tracking cases and attempting to link similar cases is essential. The concept of what is a similar case must be carefully considered. Some sex offenders become more violent and dangerous as their crimes progress. Others do not demonstrate a steady progression from less serious to more serious. In fact, they sometimes zigzag back and forth between nuisance and serious sex offenses. In evaluating the significance and dangerousness of nuisance offenders, investigators should always look for *focus* (i.e., change from general to specific victim) and *escalation* (i.e., change in behavior over time) (see Lanning, 2010 for additional details).

During the same general time frame, one offender may also abduct multiple victims including both adults and children. As previously discussed, the age of the child victim is an important factor in this analysis. Some offenders may see little difference between a 15-year-old and a 22-year-old. In addition, the perpetrator of this type offense may also be the perpetrator of an unsolved abduction/murder or a long-term missing child case.

2. *Child Found Dead*—Obviously, once the child is found dead he or she is no longer a missing child. In these relatively rare cases, a good crime scene examination and a professional autopsy are essential to the analysis process. The child victim can no longer verbally speak to us; thus, the crime scene and autopsy must do the talking. There may be multiple crime scenes (e.g., abduction site, recovery site, and possible secondary assault site). Other areas (e.g., home, workplace, and school) may develop if or once a suspect is identified. The distance from the abduction site to the recovery site is also important. Depending on the state of the body when found, a thorough and competent forensic evaluation should shed light on other important factors such as: manner of death, cause of

death, time of death, antemortem acts, post-mortem acts, type of any sexual activity, how long child kept alive, status of clothing, use of restraints, nutrition, and body disposal.

The essence of criminal-investigative analysis begins with determining **what** happened; then assessing *why* something did or did not happen (i.e., motivation continuum); and finally speculating about the characteristics of *who* did it. This, of course, can only be done with the most accurate, detailed information possible about *what* allegedly happened.

As stated, both the sexual acts and the sexual motivations must be considered in sexual homicide investigations. As part of the analysis process, the definition of what constitutes a sexual act or assault should not be limited to a narrow legal or behavioral definition. The determination that it is a sexual homicide should never be limited only to evidence of orifice penetration and the presence of seminal fluid on, in, or near the body. Multiple motivations and perpetrators must also be considered. As previously discussed, an abductor may use force or kill his victim for many reasons (Lanning, 1994). Though much less common, it is also possible that one offender abducted the child and another murdered the child.

Although anyone younger than the age of 18 may be considered a child, it is clear that there are major differences between the victimization of older and younger children. With adolescent victims, acquaintances and peers must be considered as likely offenders and both heterosexual and homosexual relationships need to be evaluated. The younger the child victim, the more likely it is the murderer is a family member. However, parents who kill their young offspring seem to be less likely than other murderers of children younger than 12 to sexually assault them prior to the murder. Albeit difficult and unpleasant, parents must be carefully evaluated and eliminated, if possible, even in cases where they report their child missing or abducted. A sex offender could stage a crime scene to cast suspicion on parents and parents could stage a crime scene to cast suspicion on a fabricated sex offender. The appropriateness of the response of parents to the abduction or death of their child should be measured against case specific prior patterns of behavior and not some general opinion that they are not acting as they should (i.e., they do not appear properly distressed about their missing or murdered child). The FBI has published the results of its research on false allegation of child abduction (Hilts, Donaldson, & Muirhead, 2013). This publication should be consulted when evaluating these possible and sensitive suspicions.

3. *Child Still Missing*—These are by far the most difficult, frustrating, and emotionally draining of all the child abduction cases for law enforcement (Lanning & Hazelwood, 2001). Because the child is still missing, it is hard to identify the motivation with any degree of certainty. Without reliable witnesses, it may be hard to know the child was even abducted. There is little to analyze other than possibly the sophistication of the abduction if it were observed. By process of elimination, statistical probability, and totality of circumstances, sexually motivated nonfamily abduction usually becomes the focus of the investigation of many long-term missing children cases. The large reservoir of available manpower and the aggressive, high-priority style of the investigation then result in the identification of every known and suspected sex offender within 200 miles. During the investigation other unrelated sex crimes are often solved.

The FBI's Innocent Images Initiative on Internet sexual exploitation of children actually grew out of the intense scrutiny given a suspect in the abduction of a 10-year-old boy. The suspect's online activity involving his sexual interest in children was discovered as a result of the extensive manpower and resources devoted to evaluating him. Based on the same initial information, he received far more investigative attention as a suspect in the child abduction than he ever would have received simply as a nice guy in the community with an unusual interest in neighborhood boys.

Although never convicted of the abduction, this suspect and two associates were convicted of numerous charges involving sexual exploitation of children. The boy remains missing to this day.

Sex offender registries often do a poor job of distinguishing among specific types of offenders (Levenson, Brannon, Fortney, & Baker, 2007). We believe that sex-offender registration should be *offender-based* not *offense-based*. A sex-offender registry that does not distinguish between the total pattern of behavior of a 50-year-old man who violently abducted and raped a 6-year-old girl and an 18-year-old man who had compliant sexual intercourse with his girlfriend a few weeks prior to her 16th birthday is misguided and inadequate. The offense an offender is technically found or pleads guilty to may not truly reflect his dangerousness and risk level. Proper evaluation of suspects requires detailed, comprehensive, and reliable information beyond the crimes for which they were convicted. Even prior sexual crimes against children can vary greatly in their potential significance to a sexually motivated child abduction case. As the old idiom states, the devil is in the details. Multiple suspects need to be prioritized by some criteria other than simply that they are registered sex offenders.

At the beginning of child abduction investigations there usually are more leads than investigators to cover them. As time wears on, there are often more investigators than leads. One category of suspects never goes away: parents. As discussed, parents need to be considered as suspects. However, investigators must continuously ask themselves if they are focusing on the family based on factual evidence or because they have nothing else to pursue. The statements and actions of parents sometimes make this more challenging. As part of their efforts to convince law enforcement that their child was in fact abducted or to conceal poor supervision on their part, parents sometimes furnish false or misleading information to investigators. Misrepresenting the window of opportunity for the abduction (e.g., "I turned away for only a minute") is a recurrent example. Although unfortunate, such false information does not necessarily mean their child was not abducted.

In long-term missing child cases, investigators should be prepared to deal with and evaluate a wide variety of overzealous witnesses, psychics, private investigators, con artists, attention seekers, self-proclaimed profilers, volunteers with a history of child molesting, and parents of other missing children who come forward to help or provide information in these cases. Because of deliberate publicity about and dissemination of images of the missing child, investigators are often inundated with sightings of the missing child over a wide geographical area that turn out to be false. Varying claims about organized child sex rings, roaming bands, child slave auctions, snuff films, satanic cults, and abductions to obtain body parts should be anticipated. Although all legitimate leads need to be investigated, to date, there is no evidence to support allegations of child abductions by highly organized sex rings or satanic cults on dates with occult significance. Adults tend to believe what they want or need to believe. In a highly emotional case such as a long-term child abduction, even experienced investigators can become gullible believers of almost anything. The heightened and understandably emotional aspects of these cases also cause some investigators to develop their own theories, some of which can be improbable and unsupported, about the abduction and refuse to change them even when the evidence indicates otherwise.

## Evaluating Suspects

Criminal investigative analysis is not an exact science and often does not solve the case. It is, however, a useful tool to help focus and prioritize the investigation. Case specific facts and physical evidence (i.e., fingerprints and DNA) always override statistical probabilities and so called "profiling." The dynamics of these cases also vary significantly depending on the specific ages

and genders of the abducted children (Boudreaux, Lord, & Dutra, 1999; Lord, Boudreaux, & Lanning, 2001; Boudreaux et al., 2001 Miller, Kurlycheck, Hansen, & Wilson, 2008).

The investigation of sexually motivated abductions of children, especially pubescent children, should **NOT** be limited to or even automatically focus on individuals with a history of sex offenses against children. From a child molester's perspective, the dumbest thing one could do is to abduct one's victim, as it will likely bring the greatest investigative scrutiny. Why then do some child molesters abduct their victims? It appears the primary reasons are that they lack the interpersonal skill to do otherwise or their need-driven behavior compels them to. Therefore, individuals with a history of social and sexual inadequacies and poor interpersonal skills or a need to abduct victims would be better suspects in most cases.

Evidence of a preferential interest in children or sexual sadism (e.g., victim tortured while kept conscious and alive, and sexual bondage) would change this suspect focus. Notorious serial killer Ted Bundy is generally not thought of as a child molester or pedophile with a sexual interest in children. Yet his last known victim, whom he abducted and sexually assaulted, was a 12-year-old girl. About one-third of the Green River Killer's many victims were adolescent children. Preferential child molesters with a demonstrated ability to nonviolently seduce and control children rarely abduct them, but they may kill them to avoid detection. Sexual sadists are more likely to abduct and often have good interpersonal skills.

Whether an abducted child is found alive or dead, or is still missing, an investigation might identify a suspect based on certain material found in his possession. As previously stated, investigators need to understand and evaluate the possible significance of information about missing children in the possession of suspects/offenders. Although the possession of such should be carefully investigated to determine possible involvement in abduction, most seduction type preferential sex offenders collect this material (and the other similar material) to help them understand, rationalize, and validate their behav-

ior as child "lovers," not abductors. As part of an objective investigation, investigators should compare the consistency between *what* is alleged to have happened to any abducted victims and *who* is now suspected of having done it. All the known details of the abduction (i.e., verbal, physical, and sexual behavior) need to be compared with everything learned about the suspect. Based on a thorough evaluation of all known information (i.e., arrest records, recovered collection, and personality assessment), investigators should evaluate the suspect's propensity for violence, aggression, failure, sadism, or need for validation? Any inconsistencies need to be reconciled. The inconsistencies could be because the alleged *what* is inaccurate (e.g., distorted account from victim, and insufficient details), the suspected *who* has been misevaluated (e.g., incomplete background and erroneous assessment), or the alleged *who* is innocent (e.g., suspect did not commit alleged crime) (Lanning, 2010).

For purposes of criminal investigative analysis, force and violence can be divided into three categories: *inadvertent, indiscriminate*, and *intentional*.

Although the word seems inappropriate and inadequate considering the result, the *inadvertent* category is used to describe force caused by the offender's selfish need to be sexually gratified with little concern for the child victim. Inadvertent force is seen most often when there is a significant size difference between the offender and the child and when the offender views the victim as an available, nonthreatening orifice or partner rather than as a child. It frequently involves a very young child or a child who, as advised by adults or through his or her own instincts, resists and a socially and sexually inadequate offender who may not initially intend to injure or kill, but just does not care or needs to quiet the resisting child. Perhaps surprising to many, some offenders who abduct, sexually victimize, and murder children will admit to the murder and deny the sexual activity. They may be better able to justify and rationalize the murder than the sex with a child. They may also claim the child died accidently and they panicked. Determining if this is accurate can become a valid component of the

investigation, although in some cases it simply cannot be precisely established.

The *indiscriminate* category is used to describe a more organized offender who selects a sexual assault victim who might happen to be a child and whom he might hurt or kill if need be. The term indiscriminate refers more to the selection of the child victim than to the violence or death. Most of these offenders are not pedophiles types, but are manifesting morally indiscriminate or psychopathic tendencies (Antisocial Personality Disorder).

The *intentional* category is the most varied. It includes sex offenders who kill their victims to avoid detection (probably the largest category of sexual homicides of children), sadists and serial killers who hurt and kill for sexual pleasure, pedophiles who kill because of misguided love or ambivalent hate, and extreme inadequates who are intimidated by interpersonal contact. Serial killers whose primary targets are adults often have adolescent children among their victims. Two different child molesters interviewed by one of the current authors (KL) had each killed several of their child victims. They each said the only way society could have prevented the murders would have been to legalize sex between adults and children. They claimed to have killed their victims only to avoid identification and prosecution.

A psychopath whose 4-year-old female victim eventually dies of exposure when he discards her after luring her into his car and sexually assaulting her; a pedophile who abducts and tortures to death a 12-year-old boy to satisfy his sadistic urges; and a sexually motivated serial killer who strangles to death a prostitute who turns out to be 17 years old, all have committed a sexually motivated child abduction resulting in death. The dynamics and investigation of these cases may, however, have little to do with each other.

A basic step in the criminal investigative analysis of sexual homicide is evaluating whether the offender is *organized* or *disorganized*. This is based on assessment of criminal acts, analysis of victim and crime scene, and evaluation of forensic evidence. Because of multiple offenders, unplanned events, victim resistance, alcohol or drug use, extreme stress, etc., a crime scene may reflect mixed aspects of both organized and disorganized behavior. For these reasons it is again useful to view this concept on a range or continuum.

*Organized* sexual child killers tend to be psychopaths, pedophiles, and/or serial killers who are of average to above-average intelligence and socially competent. They indiscriminately or intentionally (thrill, sadism, fear of discovery, and hate) abduct and kill their child victims. They are cunning and tend to plan their crimes. They tend to target strangers and engage in aggressive and sexual acts prior to death. They transport their victims and dispose of their victims' bodies in a manner that will prevent, limit, or delay their discovery and the recovery of evidence. They may display the victims' bodies where they will be easily found to shock and outrage society. An organized offender might also stage the crime scene to mislead investigators about its true nature.

In comparison, *disorganized* sexual child killers tend to be individuals who are younger, less intelligent, and more sexually inadequate. They inadvertently or intentionally (love, inadequacy) abduct and kill their child victims. They have difficulty with interpersonal relationships and tend to target known victims. They kill closer to their home or safe area. Sexual acts often occur after unconsciousness or death and the body is frequently left at the assault scene. If they dispose of their victims' bodies, they do so by quickly dumping them or burying them in shallow graves where they are more likely to be found.

In fact, maybe one of the best indications of whether a sexual child killer is organized or disorganized is how quickly and where the victim's body is found. Parents who murder their children and attempt to cover it up by reporting them missing or abducted might be more likely to wrap the children in plastic and bury them in a place they are familiar with. If they truly love the child, they may even try to discreetly lead the investigators to the place of burial, or subtly suggest nearby possibilities, so the body will be discovered and properly buried.

Often it is difficult to ascertain the true and exact nature of an offender's sexual behavior from

arrest records. As mentioned, one of the biggest mistakes investigators make is putting too much emphasis on suspects with a history of child molesting and not enough on those with a history of inadequate or failed offenses against adults. The emphasis should be placed on the suspect's history of methods of access and control of any victims. In the absence of case-specific facts and evidence to the contrary, we believe general suspects should be prioritized based on the following ranking of known offenses or behaviors:

1. Sex offenses involving abduction of children, especially with victims of the same apparent age and gender as the missing child
2. Sex offenses involving abduction of adults, especially failed abductions
3. Abductions of children
4. Abductions of anyone
5. Sex offenses involving child victims
6. Sex offenses involving adult victims *with*
   (a) displays of deviant arousal patterns
        or
   (b) demonstrations of sexual or social inadequacy
7. Any sex offense

Especially in cases involving abduction from residences, suspects with a history of trespassing, breaking and entering, and burglary should be considered and carefully evaluated. Pre-offense precipitating stressors and post-offense changes in behavior in the lives of potential suspects should be carefully documented and evaluated. Suspects should generally be treated with respect and dignity when interviewed to increase the likelihood of cooperation and disclosure. Sex offenders generally tend to disclose only what they believe the investigators already know or they think they know and what they can rationalize. Interviewers should encourage and facilitate this rationalization process. Complete truthfulness from the suspect need not be an interviewer's primary goal, at least initially. The more information that is obtained, accurate or otherwise, the greater number of details are available for later scrutiny, evaluation, and confrontation as deemed necessary or appropriate.

When a molestation suspect, including one who abducted a child, is identified, there are certain fairly predictable reactions by the individual. Many sex offenders are especially good at inventing all kinds of explanations and excuses to deny, minimize, rationalize, or validate their sexual interests and behavior. Sex offenders who abduct their child victims will have a harder time rationalizing their behavior than those who befriend, groom, and seduce them. Knowledge and anticipation of these reactions will help the investigation and prosecution of such difficult cases. We find that quite often highly trained mental-health professionals with limited forensic experience can be especially gullible in accepting uncorroborated claims about sexual behavior and motives. Our admittedly biased perspective is to assume everyone is lying unless and until shown otherwise.

Investigators should be alert to the fact that many sex offenders falsely confess to crimes they did not commit or claim to have knowledge about organized child sex rings, abduction of children, satanic cults, or child murders (Read, Powell, Kebbell, & Milne, 2009). Some investigators are vulnerable to accept these claims because it is what they want or need to believe. The information furnished, however, has often turned out to be exaggerated, distorted, or patently false. Investigators have no choice but to investigate and check out such allegations because they might be partially or totally true. Investigators, however, must be skeptical and cautious in their response. Such stories should be carefully evaluated and assessed, and investigators should consider early use of the polygraph by an examiner experienced in interviewing sex offenders.

Sex offenders can progress in *types of victims; types of acts; frequency, intensity, skill of crimes*; and *physical and emotional harm to a victim*. Many sex offenders progress in gaining confidence and acting out their deviant sex fantasies by moving from inanimate objects to paid adult partners (prostitutes) to compliant adult partners and then to child victims who are family members, acquaintances, or strangers. Although prostitution is a crime, the acting-out behavior itself is more criminally significant if the victims are

children or nonconsenting adults. The violence used by sex offenders can also progress. They can progress to violence and in the degree and severity of violence. Their sexual violence can be part of general aggression or true sexual sadism. It can be incidental to the sex crime or an integral part of it. If the sex offender's preference includes children (i.e., pedophilia), this progression can obviously lead to more child victims.

As mentioned, although seemingly at the opposite ends of the sex offender behavior spectrum, nuisance sex offenses and sexually motivated child abductions can involve similar patterns of social and sexual inadequacy. Suspects with nuisance sex offenses in their background should not be ignored in these cases—even if their prior offenses are only against adults. A big investigative issue in evaluating such offenders is always the question of progression to more serious offenses, including child abduction. Some nuisance sex offenders progress little over the years in their criminal sexual behavior. Some progress to more serious sex crimes and some move back and forth. Many investigators consider the possibility that a nuisance sex offender might progress to more serious crimes in the future, but they ignore the possibility that he **already** has. An offender who has committed serious sex offenses in the past might later engage in nuisance sex offenses for a variety of reasons ranging from expediency to guilt and need-driven specific sexual preferences.

Some nuisance sex offenses against children are more common than others. Some of the more bizarre ones that we have dealt with over the years include an offender engaging in behaviors for sexual gratification such as: stealing soiled diapers being worn by a baby; photographing children wearing diapers; squirting children with a water pistol filled with semen; listening to children urinate in a school bathroom; videotaping cheerleaders at a football game; having parents send photographs of their children getting an enema; playing the master/servant game by having children rest their feet on the offender's prone body; tape recording boys belching; window peeping at his own children; urinating on prostitutes, girlfriends, and his own child; masturbat-

ing to videos of children's autopsies; having children spit in cups; buying soiled underwear from adolescent boys; leaving sexually explicit images or communications for children or their parents to find; and soliciting body fluids from boys on the Internet. The investigative priority of these types of crimes can change rapidly when it is discovered that the offender carries the human immunodeficiency virus (HIV) or is entering homes in the middle of the night. In many of these cases it is difficult to prove the sexual motivation. Some are still not considered sex crimes or not crimes at all, even if investigation could potentially demonstrate or reveal the sexual motivation.

Nuisance sex offenses can be part of the evolving process of a sex offender developing his criminal skills and overcoming inhibitions. A nuisance sex offender with child victims can also be a pedophile who has other paraphilias and a sexual interest in engaging in these particular behaviors (e.g., indecent exposure, obscene calls, and peeping) with children. As stated, almost any sex offender can become violent to avoid discovery or identification (Lanning, 2010).

## General Recommendations and Conclusions

This discussion is not intended to be a detailed manual on the investigation of sexually motivated abductions of children. Basic investigative techniques, case management, and the proper collection and preservation of evidence obviously apply to these cases. Based on the above analysis, we would, however, recommend the following general strategies:

1. Deciding whether a particular abduction is or is not sexually motivated may be a matter of semantics and may not be necessary in every case. Recognizing the sexual components or aspects of an abduction may, however, be crucial to solving it.
2. Whether the abduction involves a murderer who happened to sexually assault his victim or a molester/rapist who happened to murder

his victim can be important. The end result for the victim may be the same, but the focus of the investigation might be significantly different.

3. Both the sexual acts and the motivations must be considered in sexual child abduction investigations. As part of the evaluation process, the definition of what constitutes a sexual act or assault should not be limited to narrow legal or straitlaced behavioral definitions. Multiple motivations and perpetrators and the possibility of staging must also be considered.

4. Although anyone under 18 years of age may be considered a child, it is clear there are major differences between the victimization of older and younger children. The younger the child victim, the more likely it is that the murderer is a family member. However, parents who kill their young offspring seem to be less likely than other murderers of children under 12 to sexually assault them prior to the murder. Although the task is difficult and unpleasant, parents must be carefully evaluated, even in cases where they report their child missing or abducted. With adolescent victims, acquaintances and peers must be considered as likely offenders and both heterosexual and homosexual relationships need to be evaluated. The age and gender of the child victim is important in this analysis and in comparison to other known cases.

5. The investigation of sexually motivated abductions of children, especially pubescent children, should NOT be limited to or even automatically focus on individuals with a history of sex offenses against children not involving the overt use of force. Individuals with a history of social (e.g., multiple jobs and failed relationships) and sexual (e.g., nuisance sex offenses, and failed assaults of adults) inadequacies or a demonstrated need to abduct victims would be better suspects in most cases.

6. Evidence of a preferential interest in children or sexual sadism (e.g., victim tortured while kept conscious and alive, and sexual bondage) would change this suspect focus. Preferential child molesters with a demon-

strated ability to nonviolently seduce and control children rarely abduct them, but they may kill them to avoid detection. Sexual sadists are more likely to abduct and usually have good interpersonal skills.

7. In sexual homicides, physical evidence is crucial. Investigators and evidence technicians must be aware of and trained in the latest procedures in the collection and preservation of evidence, especially biological trace evidence for DNA analysis.

8. Participation in child fatality review teams increases the likelihood that evidence will be properly evaluated and all viable explanations will be explored, especially in intrafamily cases.

9. Unsolved abductions and murders should be entered in state and FBI ViCAP systems by completing the necessary forms. This will aid in evaluating the possibility of serial offenses. Consider requesting the assistance of the FBI Behavioral Analysis Unit-3 (Crimes Against Children) in Quantico, VA (703-632-4347) for investigative support and obtaining a free copy of the FBI's *Child Abduction Response Plan* (FBI, 2015). The nearest FBI office can assist in these efforts and provide additional investigative resources.

10. Request assistance from the National Center for Missing and Exploited Children (800-843-5678) in cases involving missing children.

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# Terrorism and Violent Extremism

Randy Borum and Thomas Neer

## Terrorism and Violent Extremism

Terrorism and violent extremism profoundly challenge global security (Gupta, 2016). More than 62,000 known terrorist incidents occurred worldwide between January 2011 and October 2015. Although the overall number of incidents worldwide declined from 2014 (17,000) to 2015 (15,000), even that trend did not hold for Western Europe and North America, both of which saw an increase (National Consortium for the Study of Terrorism and Responses to Terrorism, 2016). Given that the tactic of terrorism has been around since ancient times, it is not a threat that is likely to diminish in the foreseeable future (Chaliand, 2016; Laqueur, 2016).

## Defining Terrorism

Despite the magnitude and persistence of the problem, defining terrorism and specifying the scope of violent extremism remains elusive

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(Calafato, 2016; Englund & Stohl, 2016; Ganor, 2002; Garrison, 2004; Richards, 2015). As a class of criminal activity, terrorism seems to be more easily recognized than defined. A commercial airliner is hijacked and intentionally steered into an occupied building. A woman, disguised as being pregnant, approaches a head of state and detonates explosives she has strapped around her waist. A government microbiologist sends letters contaminated with anthrax to politicians and media outlets. A mathematician-recluse sends a handcrafted bomb through the mail to the owner of a computer store. A former Army solider drives and detonates a truck full of fertilizer-based explosives in front a federal official building on homeland soil. Each of these diverse incidents is almost universally recognized as terrorism, though the character of these actions varies considerably.

Some would argue that the questions of what comprises terrorism and who should be considered a terrorist are objectively unanswerable; that "one man's terrorist is another man's freedom fighter" (Ganor, 2002; Garrison, 2004). As of 1988, more than a hundred formal definitions of terrorism had been proposed (Schmid & Jongman, 1988). Most definitions, however, whether used for research purposes or codified into law or policy, address some common elements. They include some description of the *behavior* (from threat to actual force), of the *actor* (not acting as a representative of a nation

or its military), of the *target* (typically civilian noncombatants) and of the *motivation* (e.g., to further a political, religious, ideological cause) (Borum, 2013). But minor differences in definitions, can create large differences in estimates and measurement of the phenomenon.

Recently, Richards (2015) has argued that the essence of terrorism is its intent to generate a psychological impact beyond the immediate victims. He suggests, therefore, that the phenomenon might best be viewed as a particular *method* of political violence—and not necessarily expressed in relation to a particular ideology or class of perpetrators or victims. For purposes of this chapter, we use the term "terrorism" somewhat more narrowly to refer to *acts of violence (as opposed to threats or more general coercion) intentionally perpetrated on civilian non-combatants with the goal of furthering some ideological, religious or political objective* (Borum, 2004).

## Types of Terrorism

Terrorism is an ancient and diverse tactic. As Walter Laqueur has observed, the quest for a "general theory is misguided, because many terrorisms exist, and their character has changed over time and from country to country (2003, p. 22)."

To manage this complexity, numerous attempts have been made to develop taxonomies and classification schemes to categorize terrorism. Some have parsed the types by geography (e.g., domestic vs international), by motive (e.g., political vs. religious), by method (e.g., suicide bombing vs. cyber), by actor (e.g., state-sponsored vs. lone actor) or some combination (Flemming, Stohl, & Schmid, 1988; Marsden & Schmid, 2011; Young & Findley, 2011).

Terrorism scholar David Rapoport has characterized the history of modern terrorism as emerging in four waves (2001):

*Anarchist Wave* (1880s–1920s) was inspired by Russia's Czar Alexander II political reform program and emancipation of the serfs. They used assassination as the tactic of choice and sought, through violence, to trigger chaos,

hoping the resulting upheaval would lead to the end of social institutions and oppression and dissolution of the State.

*Anti-Colonial Wave* (1920s–1960s) was a nationalist/separatist era inspired by the end of World War I, when large (sometimes imperialistic) empires of the Central Powers were forced to divest themselves of their "colonies," and new national entities emerged. They typically did not use assassination, but targeted local institutions and symbols or representatives of colonial power.

*New Left Wave* (1960s–1980s) was grounded in communist or far left-wing ideologies, and was inspired by the Viet Cong's success in resisting French (and later American) forces in Vietnam. The tactics in this wave were more "theatrical," and less focused on state or military targets. Hijackings, kidnappings, and hostage takings were some of the most common methods of attack.

*Religious Wave* (1990s to Present) was inspired by key events that ushered in the 1980s, most specifically the Islamic Revolution in Iran and the Mujahidin's' success in repelling a Soviet incursion into Afghanistan. The latter, of course, laid the groundwork for the emergence of the Taliban and al Qa'ida. These events wove together a patchwork of Islamic religious identity with political resistance and independence. The current manifestation of this wave is a militant, anti-Western, Salafist brand of Islamist ideology.

Although militant Islamist terrorism has dominated post-9/11 discussions of extremism, more recently, especially in Western countries (including the USA), there has been increasing concern about the rise of far-right extremist violence (Bergen, Ford, Sims, & Sterman, 2016; Klein, Gruenewald, & Smith, 2016; Lenz & Potok, 2015; Post, 2015). The Federal Bureau of Investigation (FBI) parses domestic violent extremist groups into six broad categories including (1) Sovereign Citizen Extremists, (2) Animal Rights and Environmental Activists, (3) Anarchist Extremists, (4) Abortion Extremists, (5) Militia Extremists, and (6) White Supremacy

Extremists (FBI, 2017). With the exception of Anarchists and Animal Rights and Environmental Extremists, the others tend to cluster around a range of far-right ideologies.

Far-right extremist ideology is among the most difficult to define, in part because of its heterogeneity ranging from racist hate groups to antigovernment militias. Perry and Scrivens (2016) describe it as:

> a large, loose, heterogeneous collection of groups and individuals espousing a wide range of grievances and positions, including: anti-government/individual sovereignty, racism, fascism, white supremacy/white nationalism, anti-Semitism, nativism/anti-immigration, anti-globalization/anti-free trade, anti-abortion, homophobia, anti-taxation, and pro-militia/pro-gun rights stances (p. 821).

Recent far-right attacks have targeted migrants, abortion providers, laboratories using animals for research, and law enforcement officers. While some of the attackers were affiliated with antigovernment organizations and the Patriot and Sovereign Citizen movements, others come from hate-inspired groups such as white supremacy (Lenz & Potok, 2015). In recent years, the white supremacist movement has grown with increased incidents of violence, some of it directed at the police. Nearly all of these groups thrive on the publicity and attention they receive, especially by the media. However, many know just how far they can go in stirring up conflict before breaking the law. To avoid arrest, some groups expressly refrain from engaging in violence, preferring instead to inspire others to armed resistance through the marketing of hateful ideologies in rallies, speeches, or online publications (SPLC, 2015). A particularly vexing characteristic of hate-inspired attacks is that many have been committed by "lone offenders" (Lenz & Potok, 2015).

## Lone Offender Terrorism

Terrorism committed by "lone" actors is not a new tactic, and was actually a prominent feature of the "Anarchist Wave." In the USA, attacks by unaffiliated individuals accounted for 6.5% of overall terrorist attacks between 1970 and 2007,

and for a third of attacks occurring between 1995 (post-Oklahoma City) and 2007 (NC-START, 2016). One possible reason for the rise in lone offender attacks is that by planning and executing an attack without the knowledge or assistance of anyone else, an offender does not have to worry about being infiltrated by law enforcement or unwittingly working alongside a government informant (SPLC, 2015). Though the "lone wolf" moniker is sometimes used to characterize *attacks by individuals acting alone*, that terminology also carries the potential to glorify or to imbue an image of power to attackers who are otherwise powerless and often ineffectual, so for this chapter we use the more generic "lone offender."

Lone actors, however, are often not completely alone. Acts of lone offender terrorism vary in the extent to which the offender/attacker initiated, planned, prepared for, and executed the attack without assistance from any other person; in the nature and extent of the attacker's independence and autonomy in all decisions across the spectrum of attack-related activity from idea to action; and in the extent to which the attack is significantly driven by a political, social, or ideologically based grievance, as opposed to personal motives (Borum, Fein, & Vossekuil—Dimensions, 2012). Consider the following two cases:

## Oklahoma City Bombing

On the morning of April 19, 1995, a fervent antigovernment advocate, 27-year old Timothy McVeigh, carefully parked a Ryder rental truck laden with explosives alongside the Alfred P. Murrah Federal Building in Oklahoma City. After setting the timing device, he exited the vehicle and departed the area in a car he had prepositioned several blocks away. Within minutes the bomb exploded, ripping through nine floors of concrete and steel, killing 168 people, including 19 children, and injuring another 500. More than 300 nearby buildings were damaged or destroyed. The intentional bombing was the deadliest act of domestic terrorism in the USA. A massive investigation followed, and within days, McVeigh emerged as the primary suspect and was arrested.

The timing of his attack was no coincidence. It occurred on the second anniversary of the FBI's fateful standoff with the Branch Davidians in Waco, Texas, in which dozens of Davidians lost their lives. McVeigh and other antigovernment adherents were convinced the FBI caused these deaths and were furious (Michel & Herbeck, 2001). It did not seem to matter to McVeigh or his cohorts that the FBI did not fire a single shot or set the fires that eventually engulfed the buildings where the Davidians perished (DOJ, 2014).

As the Oklahoma bombing investigation continued, evidence indicated McVeigh was both the architect of the deadly attack, and the one who singlehandedly transported and detonated the explosive device. To many, this made him the deadliest lone terrorist in US history. Others, however, were skeptical that one individual, acting alone, could perpetrate such a large-scale attack (Federal Bureau of Investigation, 1997). Further investigation revealed that McVeigh had, in fact, received logistical help from two friends who were aware of his plan to bomb the Federal building but declined to participate (Michel & Herbeck, 2001; US v. McVeigh, 1997).

In planning and executing his bombing, McVeigh conceived and carried out the operation largely by himself, gaining inspiration from *The Turner Diaries*, a fictional account of a violent revolution in the USA igniting a race war and leading to overthrow of the federal government. For logistical support, McVeigh enlisted the assistance of a few longtime friends who shared his antigovernment sentiments, thereby minimizing the chance that his mission would be detected or reported to authorities (Michel & Herbeck, 2001).

## Time Square Bombing Attempt

At approximately 6:33 pm on May 1, 2010, a pair of street vendors in New York's busy Times Square alerted a police officer to smoke emanating from a suspicious parked vehicle, a 1993 Nissan Pathfinder (CBS, 2010; Fernandez, 2010). The responding bomb squad discovered a crude, "amateurish," but nevertheless potentially deadly bomb, which they safely defused with help of a robot (CBS, 2010).

Investigation revealed the vehicle had been purchased a week earlier for $1300 by Faisal Shahzad in his home state of Connecticut. Investigators discovered he had also purchased a handgun and components for an improvised explosive and incendiary device which he loaded into the Pathfinder and parked in Times Square (Elliott et al., 2010). When Shahzad attempted to detonate the device, it failed to explode, and he returned home. Two days later, he boarded a flight from New York to Dubai but was arrested before the aircraft departed. Investigators subsequently determined that in February 2010, Shahzad received $5000 cash from an alleged coconspirator in Pakistan who was affiliated with the terrorist organization, Tehrik-e-Taliban. Three weeks before the attempted bombing, he received an additional $7000 from someone in the USA acting at the behest of the Talban official (DOJ Press Release, 2010). In 2011, authorities in Pakistan arrested four individuals on various charges with alleged ties to Shahzad, but these individuals were eventually acquitted of all charges by a Pakistani court in 2012, leaving an open question as to the identity and degree of support Shahzad received (Walsh, 2012; Wilson, 2010).

Shahzad told investigators that inspiration for his attack came from listening online to sermons of the radical cleric Anwar al-Awlaki, who was subsequently killed in an airstrike by US drones in 2011. Shahzad also reported that between December 2009 and February 2010, he visited his hometown of Peshawar, a notorious hotbed of radical activity. When his father learned of Shahzad's foray into radical Islam, he strongly disapproved. Undaunted, Shahzad attended a terrorist training camp run by the Taliban where he learned how to build a bomb (DOJ, 2010; Miller & Markon, 2010). It is presumed he was encouraged to return to the USA and carry out a terrorist attack. Evidence of this can be inferred by watching a video produced by the Pakistani Taliban showing Shahzad quoting passages from the Koran and explaining his (and other Muslims') duty to wage violent jihad against Americans, Jews and other infidels. Analysis of the video suggests it was produced between 2009 and 2010. Footage of Shahzad expressing his antipathy toward non-Muslims are interspersed with inspiring

music and graphics suggesting the video was intended as both propaganda and as a tool for recruiting new jihadists (NY Times Video, 2011).

## Understanding Terrorism

Social science researchers have studied terrorism for at least the past 50 years, but are still not approaching a definitive theory of its cause. Empirical research has identified a number of correlates, but nothing that coalesces into an overarching evidence-based model. Terrorism is a distinct form of criminal violence. It is most often deliberate (not impulsive) and instrumental (used as a means to accomplish an identifiable objective). In contrast to many forms of crime, its definition is explicitly linked to the offender's ideological (e.g., political and religious) objectives, and it almost always involves a group or multiple actors/supporters (Crenshaw, 1986, 1988; Laqueur, 2003). Despite these distinguishing characteristics, terrorism is also broad rubric that includes a wide range of behaviors by a wide range of actors with diverse and complex motives in an even wider range of contexts. As Laqueur says, there are "many terrorisms." These issues all add complexity to the construction of terrorism as a form of crime, and they challenge the emergence of a unifying explanatory theory.

The pathways and motivations of the terrorist actors themselves are certainly no less complex. A substantial proportion of the scholarship on terrorist behavior has focused on "who terrorists are" or "what makes them tick." This has largely been subsumed under the broad heading of "psychology of terrorism" (Crenshaw, 1986; Horgan, 2014; Hudson, 1999; Victoroff & Adelman, 2012; Webber & Kruglanski, 2016). Ultimately, the questions of why and how some people become involved, stay involved, and disengage from violent extremist activity are complicated, varied, and multidetermined.

Early efforts to explain terrorist behavior focused on the individual—the terrorist him/herself. Psychiatrists and psychologists initially explored whether their violent actions might reflect some kind of mental illness, or at least a personality defect (Schmid & Jongman, 1988). Numerous studies, however, failed to find a strong causal link between psychopathology and terrorism (Borum, 2004; Crenshaw, 1992; Horgan, 2008; Victoroff, 2005). Most investigations found the prevalence of mental illness among incarcerated terrorists was as low as, or lower than, that found in the general population (Ruby, 2002).

Recent case studies and observations of lone offender terrorists, however, suggest that mental health issues may occur more often and more prominently than they do among other terrorists (Corner & Gill, 2015; COT, 2007; Follman, Aronson, & Pan, 2013; Gill & Corner, 2017; Gill, Horgan, & Deckert, 2014; Spaaij & Hamm, 2015). Gill et al. (2014), for example, found that nearly one third (31%) of the 119 lone-actor terrorists they studied had a history of mental health problems, and Gruenewald, Chermak, and Freilich (2013) found "mental illness" to be one of the few factors distinguishing lone offenders from other extremist homicide offenders. Even in cases where mental health problems are present, the ways in which they serve to influence an attack are not straightforward.

For example, in July 2011, Anders Breivik, a 32-year-old Norwegian, detonated a vehicle-borne improvised explosive device outside an office building in Oslo, killing eight people. He then proceeded to the island of Utøya where he gunned down 69 participants at a Worker's Youth League Summer Camp. As the world struggled to comprehend one of the most horrific mass murders in history, Breivik sat in a police station calmly explaining how his displeasure with multiculturalism, Muslim immigration, feminism, etc., motivated the attacks, which he had been planning for a considerable period of time. In offering his unsettling justifications for the killings, Breivik displayed an exaggerated sense of self-worth and importance. While being photographed as part of his arrest booking, Breivik stripped to his briefs and crouched into the position of a body builder flexing his muscles. Investigators discovered he had posted online photographs of himself in a variety of poses intended to convey power and importance. One depicted him wearing an elaborate military uni-

form adorned with fake medals (Breivik never served in the armed forces). In another, he was outfitted in a tight sports suit with the words "Marxist Hunter" inscribed on his sleeve. The significance of this display became evident as police reviewed the 1500-page manifesto of hate he posted online, where, as the self-anointed "Grand Commander" of the (fictitious) "Knights Templar Norway," he disclosed fantasies of "political executions" of "cultural Marxists" (Leonard, Annas, Knoll, & Tørrissen, 2014; Manne, 2015). During police questioning, Breivik's only notable display of emotion was his whining and insistence on being given a bandage to cover a small cut sustained on his trigger finger during the rampage (Manne, 2015).

Breivik did not believe he was mentally ill and told his lawyers that he did not wish to assert an insanity defense, but the court nonetheless ordered him to undergo psychiatric evaluation. Examining psychiatrists differed in their opinions about whether Breivik suffered from a psychotic disorder (which under Norwegian law would have rendered him legally unaccountable for the offenses, regardless of whether he knew those acts were wrong). In neither evaluation did he display evidence of severely disorganized thinking or of hallucinations. The first pair of examiners, however, claimed that he had paranoid schizophrenia based principally on his grandiose beliefs about the nature of his status and role in the extremist "movement." The second examination team believed Breivik did not meet criteria for a diagnosis of paranoid schizophrenia, but that he had a severe narcissistic personality disorder. Notably, however, both assessments recognized Breivik's meticulous planning, ability to conceal those plans, and ability to argue and defend his ideological positions (Melle, 2013). Notwithstanding whatever diagnosis or condition he may or may not have had, ultimately, Breivik was cognitively organized and capable to planning and executing a complex attack. His case illustrates the point that a diagnosis or disorder is typically not a "master explanation" for the attacker's thinking, motives, and behavior, just as the absence of disorder does not imply that psychological factors—broadly conceived—are irrelevant (Borum, 2013).

In addition to symptoms of mental illness, a variety of non-psychopathological factors have been considered—at the individual and group-level—to understand how people engage with violent extremist activity. These investigations have variously focused on risk factors, dynamics, and on vulnerabilities and propensities. Monahan (2012), for example, has suggested that four of the most promising categories of potential "risk factors" involve an ideology that supports violence, affiliation or kinship with other extremists, a grievance, and moral emotions such anger, contempt, and disgust. McCauley and Moskalenko (2008) have explored individual dynamics at a more granular level. They suggest that the following are commonly found in (and may help to understand) people involved in violent extremist activity:

- Perception that unjustified violence is being perpetrated against themselves and valued others as part of a larger "political" struggle;
- Identification with a cause that is regularly featured in media;
- A "slippery slope" of mobilization that begins with small, low-risk activities and escalates to higher risk activities;
- Strong social bonds with other adherents to the cause ("power of love");
- Status and thrill seeking that accompany their (out-of-the-ordinary) participation in a covert group that often involves potential glory, fame, or recognition;
- "Unfreezing" or disengagement from past commitments that create a "void" in the individual's life;

Borum (2014) has suggested that the "psychology of terrorism" might be refocused on how vulnerabilities and predispositions might affect a person's propensity for involvement with violent extremist groups and actions. The fundamental idea is that that an individual's mindset and worldview establish a psychological "climate," within which various vulnerabilities and propensities shape ideas and behaviors in ways that can increase the person's risk or likelihood of involvement in violent extremism (Borum, 2014; Weenink, 2015).

Worldviews encompass the ways in which we make sense of the world and understand the meaning of our experience in it (Duckitt & Fisher, 2003; Sire, 2004). Certain worldview orientations such as authoritarianism, dogmatism, apocalypticism, and fundamentalism are recurring themes in the literature on extremist violence, and might facilitate receptivity to extremist ideology or to justifications for terrorist violence (Gregg, 2016). Psychological vulnerabilities or "need" states such as a need for personal meaning and identity, a need for belonging, and perceived injustice/humiliation can create an "opening" that makes a person more receptive to ideas and influence that may shape attitudes toward a particular class of victims/targets, volitional control over one's impulses and behaviors, or appraisals of threats and grievances (Borum, 2004, 2011a, 2011b; Ramswell, 2014). Finally, psychological propensities pertaining to motivation, attributional style, volition, and attitudes—can also affect the likelihood or nature of a person's attraction to radical ideas and actions. Propensities can operate as "push factors," which are often grievance-related or "pull factors," which are often perceived material or tangible incentives (Horgan, 2008).

In addition to drawing from psychology, researchers have also applied criminological theories to explain various forms and facets of terrorism (Freilich et al., 2015; LaFree & Freilich, 2016; Freilich & LaFree, 2015, 2016). Rational Choice Theory, for example, which focuses on the actor/offender, posits that terrorists are motivated offenders who select targets and tactics that they believe are most likely to further their goals (Cornish & Clarke, 1986). Accordingly, motivational incentives and disincentives can be manipulated to modify the terrorist's calculus of choice. Opportunity Theory, by contrast, focuses on the environment and context in which offending occurs. Through this lens, counterterrorism efforts might focus on situational crime prevention tactics that disrupt or complicate the terrorist's operating environment.

Two criminological approaches, in particular, have received recent attention: Routine Activity Theory (RAT) and Situational Action Theory (SAT) (Freilich & LaFree, 2016). RAT is conceptually grounded in the "crime triangle" which suggests that crime occurs when three factors converge: a motivated offender, an attractive target, and the absence of a "controller" or guardian. As applied to terrorism, RAT can assist in framing the actors' motivations, discerning high-risk or "attractive" targets, and identifying effective controls or guardians for those targets (Parkin & Freilich, 2015). SAT aims to offer an alternative to the traditional "rational choice" assumption, by viewing crime through the lens of "moral action." (Schils & Pauwel, 2016) It is an approach that seeks to further integrate individual and environmental causal factors and processes to explain criminal (including terrorist) offending (Bouhana & Wikström, 2010; Wikström & Bouhana, 2016). SAT's fundamental tenets are as follows (Wikström & Treiber, 2009):

- Crimes are moral actions
- People engage in criminal behavior because they view the behavior as a viable action alternative and choose to do it
- The likelihood that an individual will view criminal behavior as a viable action alternative and choose to do it depends on the interaction between his/her crime propensity and exposure to criminogenic environments
- Differences in individual development and social conditions should be viewed as "causes of the causes"
- The only relevant "causes of the causes" are those that affect propensity and criminogenic environments (including exposure)

Accordingly, SAT suggests three promising target areas for countering violent extremism or "radicalization": *Vulnerability* (individual characteristics that increase susceptibility to the influence of criminogenic/radicalizing environments); *Exposure* (social and dispositional factors that increase the likelihood being exposed to criminogenic/radicalizing environments) and *Emergence* (the factors and process by which the criminogenic/radicalizing environments emerge) (Bouhana & Wikstrom, 2011).

## Radicalization Processes

Individual motivations for terrorism and the processes or pathways by which people become involved are quite diverse. Numerous frameworks and models exist for describing the process of radicalization (Borum, 2003; Horgan, 2008; Leistedt, 2016; Moghaddam, 2005; Moskalenko & McCauley, 2008; Wiktorowicz, 2005; Young et al., 2015). In reality, different people connect with violent ideologies and groups for different reasons at different times. Often, motivations even change for a given individual over time, and the behavioral progressions are often not linear. So not everyone who becomes a terrorist goes through a series of discrete, sequential stages that escalate into violent action. What is consistent is that engaging in violent extremism is rarely "*the product of a single decision but the end result of a dialectical process that gradually pushes an individual toward a commitment to violence over time*" (McCormick, 2003 p. 492).

Different models of radicalization have been reviewed and described elsewhere (Borum, 2011b, 2017), but at least five elements appear commonly across them:

1. *Predisposing Life Experiences*: These are typically historical factors, which may have occurred earlier in life or may be an ongoing part of the individual's life experience, like exposure to discrimination and sociological "strain" factors. That these factors are historical or predisposing means that the events precede a shift toward a violent extremist ideology, but do not necessarily cause them. Lofland and Stark (1965) refer to these as "predisposing conditions." Precht (2007) calls them "Background Factors." Others regard them as "sociological factors" (CSIS, 2008) or link them to "significance loss" (Kruglanski et al., 2014).

2. *Activating Situations*: These include experiences and events that tend to be more recent and/or more acute and may be more proximal and acute, such as the actions of a particular country or a publicized humiliation of a particular group. These events may drive griev-

ances that enhance motivation to engage in extremist action. Lofland and Stark (1965) describe these situational factors as "exposure during a turning point in life." Precht (2007) classifies them as "Trigger Factors," and Kruglanski et al. (2014) characterize them as experiences of actual or anticipated "significance loss."

3. *Predisposing Vulnerabilities & Propensities*: These are typically psychological or psychosocial vulnerabilities or "need" states (e.g., need for belonging or personal meaning) or propensities (e.g., characteristic attitudes, dispositions, inclinations, and intentions) that can push an individual to seek an alternative worldview or increase his/her receptivity to imposed ideas and influence. CSIS (2008) groups these under a heading of "Psychological factors."

4. *Social and Group Dynamics*: These are social factors that can facilitate (a) engagement and intensification with a radical group or collective, its ideology and corresponding narrative, and (b) adoption and intensification of the collective's ingroup-outgroup ethos (e.g., the narrative about the outgroup adversary and the need to defend against the threat that they pose) (Thomas, McGarty, & Louis, 2014). These correspond primarily to social psychological factors that Kruglanski et al. (2014) label as "social processes." Social psychologists, Henri Tajfel and John Turner (1986), developed the concept of Social Identity Theory, arguing that one's identity (or identities) cannot be separated from the social environment where they live, work and interact with others. Individuals can have several identities, including ones related to their culture, nationality, ancestry, and/or social or political affiliations, etc. In this context, individuals associated with a terrorist organization may come to regard their group as a collective where the interests of the individual fuses with those of the group to which he/she is attached. Implicit in this process is the formation of an in-group and out-group dichotomy with members often viewing themselves as being superior to others. As individuals within opposing

groups begin to feel threatened, each demonizes the other, promoting an "us versus them" thinking. When this dynamic is combined with the notion that God favors a particular group, it becomes morally easier for that group to justify the use of violence against the other (Schwartz, Dunkel, & Waterman, 2009).

5. *Ideology/Narrative*: Ideology forges group identity, highlights common characteristics of its adherents and distinguishes them from non-adherents (Moghadam, 2008). Ideology operates as a collective narrative about the nature of a grievance and who is responsible (blameworthy) for it. The radical narrative articulates with social and group dynamics to affect the individual's attitudes toward extremist action and his/her behavior (Braddock, 2015). The ideology element is more explicit in some radicalization frameworks and more implicit in others. According to Moghadam (2008), ideologies are "exclusionary in their claims, authoritarian in their leadership, rigorous in their mandates and insistent in the rightness of their cause." Saucier, Akers, Shen-Miller, Knezevic, and Stankov (2009) have demonstrated how different extremist ideologies often share some common characteristics that facilitate violence among their proponents. They draw on these features to offer a sample narrative for a militant extremist ideology:

> *"We (i.e., our group, however defined) have a glorious past, but modernity has been disastrous, bringing on a great catastrophe in which we are tragically obstructed from reaching our rightful place, obstructed by an illegitimate civil government and/or by an enemy so evil that it does not even deserve to be called human. This intolerable situation calls for vengeance. Extreme measures are required; indeed, any means will be justified for realizing our sacred end. We must think in military terms to annihilate this evil and purify the world of it. It is a duty to kill the perpetrators of evil, and we cannot be blamed for carrying out this violence. Those who sacrifice themselves in our cause will attain glory, and supernatural powers should come to our aid in this struggle. In the end, we will bring our people to a new world that is a paradise" (Saucier et al., 2009, p. 265).*

Terrorists do not all emerge from a uniform process of radicalization, but understanding the different processes by which individuals and groups develop increasingly extreme ideas that they use to justify, or believe to mandate, violence has important implications for social science, policy, and practice. The following cases demonstrate several different pathways to radicalization:

## Boston Marathon Bombing

In April 2013, Dzhokhar (Jahar) and Tamerlan (Tam) Tsarnaev, brothers of Central Asian origin, detonated two homemade pressure-cooker bombs near the finish line of the legendary Boston marathon, killing three people and wounding 264. The brothers emigrated to the USA as teenagers in 2001 with their family and aspirations for a better life. Jahar seemed to adjust well. He was handsome, popular, and captain of his high school wrestling team. Tam, however, struggled to fit in. During their teen years, both brothers lived secular lifestyles that included drinking alcohol and smoking marijuana. Tam had some mental health problems (e.g., hearing voices telling him to do bad things), which he shared with his mother who read to him from the Koran and encouraged him to become more devout in his faith. Their father did not care for the increasingly religious home environment and returned to Dagestan to get a divorce. Jahar started college, but his first year went terribly. With only one working parent in the home, finances became increasingly strained. Their mother then lost her job, in part, because she refused to service male clients at her salon (for religious reason) and because of her angry rants suggesting that the attacks of 9/11 were committed by Americans in an effort to discredit Muslims. Compounding the problem, she was arrested for shoplifting, and rather than remain in town to face charges, she skipped bail and returned to Russia, hoping to reconcile with her husband. Their sisters also moved out of the house, leaving the two brothers alone (Jacobs, Filipov, & Wen, 2013).

Angry and in search of direction, Tam traveled back to Dagestan where he found a thriving Islamic revival underway with underground

jihadists attacking police and the secular government. He fell in with a nonviolent group called the "Union of the Just" who were critical of American government's intervention in Iraq and Afghanistan and believed Americans condoned the burning of the Koran. Several months later, Tam returned to the USA with a thick beard, different clothing, including a white prayer cap, and a new Muslim name, Muaz. His growing religiosity was evident by increased hours browsing extremists web sites, longer prayer sessions, escalation of anger at US foreign policy, and a belief Muslims were being intentionally targeted and killed by Americans. In the neighborhood mosque where Tam had previously found solace, he displayed little tolerance for their moderate stance on issues, angrily challenging the Imam on matters pertaining to religious doctrine (Jacobs et al., 2013).

Meanwhile, Jahar's world continued crumbling. Notorious for being a risk-taker drawn to trouble, he began stating publicly that he identified with embattled Chechens, viciously attacked by invading Russian troops, even though he had never lived Chechnya. Jahar also began spending time with Tam reading Muslim political websites and downloading radical publications that focused on jihad and enemies of Islam. Among these were lectures by the now deceased al Qa'ida propagandist, Anwar al-Awlaki. At some point the brothers decided to detonate bombs at the Boston Marathon, and during the investigation that followed the attacks, law enforcement authorities discovered the brothers had assembled the pressure cooker bombs by following instructions they downloaded from al-Qa'ida's online magazine, *Inspire*. Evidence was also recovered indicating the two had rented guns and engaged in target practice, and that they acquired black powder from fireworks they purchased (Jacobs et al., 2013).

## Emanuel AME Church Shooting

In December 2016, white supremacist, 21-year old Dylann Storm Roof of South Carolina, was convicted on 33 federal charges, including nine murders, attempted murder and hate crimes for the June 17, 2015 massacre at Emanuel AME Church in Charleston, SC. To gain access to his intended victims, Roof joined a prayer group. He then shot and killed members of his group (all African-American) and injured one, including the senior pastor and a state senator. Prior to the attack Roof had written a 2500 word racist and anti-Semitic manifesto in which he stated that his overarching goal was to incite a race war in America (Morlin, 2016).

Roof's childhood was difficult. His parents divorced when he was young. His father remarried, and home life was infested with marital infidelity, domestic violence, and financial troubles. He switched schools at least three times between fourth and eighth grades, and dropped out of high school during his 10th grade year. He was aimless, had no money, no job, few friends, and no direction. In his manifesto, Roof claimed that he was "radicalized" based on Internet information and discussions following the Trayvon Martin case. It was on these Internet sites that he claimed to have discovered alarming amounts of black on white crime that was being ignored. On the Internet and in face-to-face communications with others—black and white—he argued that "someone needed to do something about it for the white race." He was arrested twice in 2015 prior to the shooting incident, once for drug possession (he was a frequent opiate abuser) and another time for trespassing. He spent 6 months figuring out how to start a race war by surveilling black churches and procuring a weapon. When he eventually began his shooting spree at the church, he fired a total of 77 bullets, striking his victims 50 times. At the scene of the shooting, a witness heard him declare, "Black people are raping our women, and you all are taking over the world" (Morlin, 2016).

## Risk Assessment

Risk assessment is one of the key areas in which attempts have been made to apply social science research to practice (Borum, 2015b). Law enforce-

ment and security professionals are often confronted with questions about which people are likely to engage in terrorist action. These questions arise for investigators who are trying to assess persons of concern before they become involved in executing a terrorist attack. They also arise for correctional facilities and so-called de-radicalization programs that must determine which known or potential terrorists may be released, when, and under what circumstances (Bjorgo & Horgan, 2009; Horgan, 2009; Horgan & Braddock, 2010; Monahan, 2017).

Researchers have taken various approaches to structuring risk assessments for violent extremism, some of them resulting in instruments or general guidelines. Ultimately, tools and guidelines may be able to support investigations by making data gathering and analysis (including both static and dynamic factors) more systematic; making results more transparent; and making judgments more reliable (Borum, 2015a). They also may characterize the nature of the threat and level of investigative concern, and help to link the areas assessed more directly to risk/threat management planning (Borum, 2015b). The nascent state of these development efforts, however, calls for a substantial degree of caution for any claims of quantifying risk. The following is a sample of some risk assessment approaches that have been or are being developed for violent extremism:

## VERA-2 (Violent Extremism Risk Assessment-2)

The VERA-2 is a tool described as "specifically for risk assessment of radicalization to violent extremism" (Pressman, 2016). It is based on a Structured Professional Judgment model of risk assessment in which risk/protective factors (sometimes referred to as "indicators") are defined and the evaluator assesses and rates the examinee on each one before arriving at an overall risk judgment. Items were developed based on input from professionals in law enforcement, corrections, and forensic psychology. It is composed of 31 items, segmented into five

categories (seven beliefs and attitudes, seven context and intent, six history and capability, five commitment and motivation, six protective), and each is rated on a three-point scale (low, medium, high).

## TRAP-18 (Terrorist Radicalization Assessment Protocol)

According to the author (Meloy & Gill, 2016), the TRAP-18 "consists of two sets of indicators: first, eight warning behaviors which were originally developed to identify patterns of proximal risk for intended or targeted violence, … and (s)econd, ten distal characteristics of the lone terrorist derived from studying the extant empirical and theoretical research on terrorism, and Meloy's experience as a forensic psychologist" (p. 39).

## ERG 22+ (Extremism Risk Guidelines)

The ERG 22+ is a "manualized assessment" comprising 22 structured items, and an added category for additional factors that appear relevant in a given case (represented by the "+"). The factors are clustered in three dimensions: "the first dimension concerns the *process of engagement* and includes the factors that motivate an individual to engage with a group, cause, or ideology. The second concerns the *degree of intent* or *readiness to offend* associated with the individual mindset, including what they would do, and to what end. The third concerns the individual's *capability of carrying out* an act of terrorism" (Lloyd & Dean, 2015, p. 46). The tool is currently used to assess and manage convicted extremist offenders in the UK National Offender Management Service.

## Identifying Vulnerable People Guidance (IVP Guidance)

The IPV Guidance "is intended to support practitioners' level of awareness and decision-making in identifying individuals who are vulnerable or

"at-risk" of being recruited or involved in violent extremism" (Cole, Alison, Cole, & Alison, 2010, p. 2). It is composed of 16 constructs "drawn from the existing literature on extremism and violence … and matched against a sample of 89 individuals known to have participated in or committed acts of violent extremism" (Cole et al., 2010, p. 2).

## MLG (Multi-level Guidelines for the Assessment and Management of Group-Based Violence)

The MLG presents a set of "structured professional judgment (SPJ) guidelines designed to assist in the assessment and management of group-based violence" (Cook, Hart, & Kropp, 2013, p. 3). The assessment comprises six steps: "(1) gather case information, (2) determine the presence of factors, (3) determine the relevance of factors, (4) develop risk scenarios, (5) recommend management strategies, and (6) make conclusory opinions" (p. 9). Twenty items are grouped into four domains: Individual, Individual-Group, Group, Group-Societal.

Borum (2015b) has outlined some of the distinctions between the traditional practice of "risk assessment" and that of "threat assessment," and analyzed the particular challenges of using a structured professional judgment tool in assessing an individual's risk for involvement in violent extremism. He concludes that developing an operationally relevant assessment scheme will probably require (a) a broad view—including both idiographic and nomothetic elements—of what comprises a "risk factor"; (b) a scope of purpose that emphasizes prevention/management more than prediction/likelihood (c) an applied understanding of pathways into and through violent extremist activity and of how different risks may apply to a range of outcomes for involvement in terrorism; and (d) an understanding of how group-derived factors may or may not apply to individual cases, particularly in nonlinear ways. To accomplish this, he describes and proposes an approach that integrates a list of defined factors with a Life History or timeline, presented in the form of an individual pathway or trajectory, for which the evaluator might construct a narrative explanation describing incentives and disincentives (i.e., push and pull factors) that affected past decisions about terrorism and related activity, and the nature of the personal meaning the examinee ascribes to his/her activities at a given point in time. The assessment would be designed to assist an evaluator or investigator in developing an individualized case formulation that guides the threat inquiry and risk/threat management decisions.

## Disengaging from Violent Extremism

Efforts to counter violent extremism cover a range of activities. In addition to mechanisms for assessing risk, security and correctional services around the world have also developed a range of programs designed to "rehabilitate," "deradicalize" or otherwise facilitate disengagement among convicted terrorists, particularly those who might be eligible for release back to the community (Bastug & Evlek, 2016; El-Said, 2015; Kaya, 2016; Koehler, 2016; Kutner, 2016; Schuurman & Bakker, 2016; Sukabdi, 2015). While offenders are detained, they may be separated from the collective influence and environment of other extremists, and potentially receptive to alternative ideas or critical examination of their justifications. The voice of a now "former" terrorist can be a credible influence for active militants (Dalgaard-Nielsen, 2013).

A fundamental question for these initiatives is whether they are principally trying to change beliefs, behaviors, or both. Broadly conceived, these programs use a variety of means, typically to effect one or more of the following security-related objectives (Bjorgo & Horgan, 2009):

- Reducing the number of active terrorists
- Reducing violence and victimization
- Reorienting ideological views and attitudes of the participants
- Resocializing ex-members back to a normal life
- Acquiring intelligence, evidence, and witnesses in court cases

- Using repentant ex-terrorists as opinion builders
- Sowing dissent within the terrorist milieu
- Providing an exit from terrorism and underground life
- Reducing the dependency of repressive means and make more use of more humane means in counter-terrorism
- Reducing the economic and social costs of keeping a large number of terrorists in prison for a long time
- Increasing the legitimacy of the government or state agency

One of the most common "openings" for change among incarcerated extremists is a sense of disillusionment—what they "signed up for" when they linked up with a violent extremist group is much different (and worse) than what they "got" (Horgan & Braddock, 2010). This may motivate some offenders to change their future choices about engaging in violence, or maybe even their views about the group itself, but that does not necessarily mean they automatically renounce their core ideas and beliefs (Bertram, 2015). Empirical research (e.g., Horgan, 2009) suggests that individuals may disengage from terrorism (with low risk of reengagement) without necessarily changing their views about the legitimacy or morality of their actions. Attitude change may not have to precede behavior change. This is one reason the moniker of "deradicalization" programs may be a misnomer. They might be more appropriately regarded as "risk reduction programs" (Horgan & Braddock, 2010). Practically speaking, however, reducing the risk of engagement (and/or reengagement) in terrorism is the central and singularly common feature across a diverse array of programs (Williams & Kleinman, 2014).

## Conclusion

Terrorism persists as one of the most difficult security threats to define and one of the most pernicious threats to counter. It is important to bear in mind, however, that terrorism is not so much a "phenomenon" as it is a tactic. It is a strategic use of violence to exert influence and impact beyond the immediate target. While identifying "root causes" may provide a context for understanding violent extremism and facilitate a broader appreciation of underlying grievances and motivations, addressing those causes is unlikely to eliminate the threat. Terrorism and terrorist behavior are complex and dynamic. They emerge from a synergy of individual, group, social, contextual, situational, and sociopolitical dynamics that varies across individuals and changes over time. This means that a strategy to disrupt terrorism and deter terrorists is not amenable to a "one-size-fits-all" solution. Crafting effective interventions for assessing risk or for prevention (e.g., community-based strategies for countering violent extremism) or remediation (e.g., risk-reduction programs) requires an understanding of the multiple pathways by which people become involved, stay involved, adopt or change roles, and also disengage from violent extremism. Psychology, criminology, and other behavioral and social sciences continue to pursue that understanding (Freilich & LaFree, 2015; Horgan, 2014; Young & Findley, 2011), and practitioners in the security, law enforcement, and correctional communities persist in their efforts to apply what has been learned to prevent future terrorist attacks.

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