Jutta Lindert · Itzhak Levav *Editors*

Violence and Mental Health

Its Manifold Faces

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Foreword

Violence is omnipresent in societies, communities, institutions, families, interpersonal relationships, and it is even acted against oneself. Its impact on health and mental health is both, short- and long-lasting. The World Health Organization (WHO), in its 2002 Report on Violence and Health (2002), defined violence as *the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation.* Following increasing awareness of the impact on health, the Fifty-sixth World Health Assembly (2003) declared violence as a leading worldwide public health problem (Resolution WHA49.25) that requires creative and sustained interventions.

The WHO definition of violence guided the editors in their selection of topics, albeit with almost exclusive emphasis on the emotional and psychopathological outcomes and largely investigated using epidemiologic approaches. However, no attempt was made to be exhaustive, since we recognized that no single volume can contain all current developments on the association of violence with adverse mental health consequences, as well as on the coping mechanisms applied by individuals and communities to face them. Accordingly, this volume presents a sample of domains of a larger universe. We believe that they constitute valuable introductions that can serve a large readership, among them, policy makers, practitioners, and the public at large.

The first section deals with general issues of violence and mental health. It begins with a chapter by I. Lavi and D. Bar-Tal that highlights the psychological factors associated with using and sustaining violence in protracted conflicts. C. Spatz-Widom and H. W. Wilson review the literature on the transgenerational impact of violence, which raises one more call for action to engage in prevention and control. J. Lindert explores the association of violence with the 2 most conspicuous psychiatric disorders, depression and anxiety. These disorders are a focus of further concern in several other chapters.

Violence directed against oneself, which affects large numbers of individuals worldwide, is analyzed by J.M. Bertolote and D. de Leo.

The next group of 4 chapters examines violence in families. L. Wissow discusses the consequences of corporal punishment, a violence clothed as incurred for the sake of education among the young, while G. Gilad and Y. Basford examine the short- and long-term psychiatric outcomes of child abuse in its different expressions. J. Fisher and M. Cabral de Mello analyze data on violence against women and their mental health status, concluding that violence accounts for much of the rates of disorders among them. R. Kohn, L. Stanton, G. M. Surti and W. Verhoek-Oftedahl review the impact on psychopathology of violence against older people in different contexts, including the family.

The fourth section examines violence in society, including social institutions and communities at large. S. Hemphill, M. Tollitt, A. Konetevski, and A. Florent examine the prevalence of bullying in schools and its risk for psychopathology in children and adolescents A. Barbato refers to the different types of violence against the person in mental institutions, a human right transgression which is present in many countries world-wide. E. Hunter and L. Onnis cover the impact of violence on indigenous communities in Australia, while I. Szilard and A. Barath review the industry of trafficking of humans, especially of women and children, and its impact on their mental health.

The fifth section addresses violence on a massive scale, such as terrorism, political oppression, and war and genocide, and their mental health aftermath. First, S. Galea and S. Rudenstine review the effect of terror targeted at civilians. Next, G. Weißflog and E. Brähler review knowledge on the mental health status of victims of political violence in the German Democratic Republic (GDR) during the communist regime, 1945–1989. I. Levav examines the long-lasting mental health impact of genocide (e.g., in Europe and North Africa) and in Rwanda) while R. F. Mollica, R. T. Brooks, S. Ekblad and L. McDonald examine the effect of violence on selected population groups such as refugees. These authors present new approaches to psychosocial interventions for refugees.

The last set of 2 chapters leaves a certain degree of optimism in the reader. L. Swartz tells us how South Africa attempted to overcome the violence of the apartheid era by engaging in the clarification of truth, followed by the pursue of reconciliation between those who were victimized and those who exerted violence on them. S. Humayun and S. Scott review and compare effectiveness of youth violence prevention projects. Finally, H. Guggenheim illustrates experiences of violence in the language of art.

The editors recognize the generous contribution made by the authors and co-authors. It is our hope that the more the impact of violence on mental health becomes widely known, the better the chances of addressing a public health problem that has epidemic dimensions. We dedicate this book to the World Health Organization (WHO) that is making continuous efforts to alleviate the role played by violence on the burden of mental disorders.

Emden
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Jutta Lindert
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Preface

Several times when I was thinking what to write in this preface I recall breaking away to learn the news from Nairobi, where a group of Somali gunmen has attacked a shopping centre causing many deaths. They acted in the name of religion, disregarding the injunction, common to Islam and all the world's other major religions, to treat others as you would wish to be treated yourself, sometimes termed the "Golden Rule". Yet, throughout history, people and states acting in the name of religion have committed unspeakable acts of violence, as have those who have seen no need to invoke any such religious justification. Should we be surprised? Thomas Hobbes, writing in the midst of the English Civil War, believed that violence characterised the essential state of nature. He argued that in the absence of a strong power, mankind would engage in *a war of all against all*, giving rise to a world where there was *worst of all, continual fear, and danger of violent death; and the life of man, solitary, poor, nasty, brutish, and short*. Writing a few years later when memories of the carnage of the Thirty Years War were still fresh, the German philosopher Samuel von Pufendorf noted how *More inhumanity has been done by man himself than any other of nature's causes*. Tragically, the inhumanity continues unabated.

Many books have been written about the health consequences of violence. However, most focus on the psychological mechanisms involved and their immediate consequences, such as those dealing with the management of direct trauma. Yet this is only a very narrow perspective and, in this book, Jutta Lindert and Itzhak Levav step back to reveal the larger picture. They have assembled an exceptional team of contributors who look not just at the immediate causes of violence, but also at the causes of the causes, at not just the immediate consequences but also the long term effects, at not just the physical scars but also the often invisible psychological ones, and at not just violence between individuals but violence visited on individuals by states and non-state actors and by individuals on themselves. It is this broad perspective that characterises the public health approach to violence, just as it does to any threat to health. The public health approach, which underpins the contributions to this book, demands an ability to look at an issue as a whole, with all its complex causes and consequences, so as to propose an effective response.

This book is not for the faint hearted. It sets out a litany of often unimaginable suffering that we would often wish not to be reminded of. Yet the contributors also offer us hope, describing initiatives from several parts of the world where victims and perpetrators of violence have put their experiences behind them to move forward together. In this way it both challenges and inspires us to make the world in which we live a safer place.

September, 2014

Martin McKee
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Author Biography

Dr. Hans Guggenheim was born in Berlin, in 1924. With the break of WWII, in 1939, he moved to England and later, following internment, he was sent to Guatemala in 1940. He had his first one-man exhibition at the Club Guatemala in 1945. In New York City, Dr. Guggenheim studied art and history at the Institute of Fine Arts, and received his Ph.D. in Anthropology from New York University. Dr. Guggenheim taught at MIT, in Boston, and was fellow at the Center for International Affairs at Harvard University. He traveled around the world for *LIFE* magazine in the years 1956–57. Dr. Guggenheim founded *Project Guggenheim* in Mali, which builds art school in conflict areas such as Tibet and Guatemala. Currently he is working on as series of sketches on violence.

Part I
General Issues in Violence and Mental Health

Dr. Hans Guggenheim was born in Berlin, in 1924. With the break of WWII, in 1939, he moved to England and later, following internment, he was sent to Guatemala in 1940. He had his first one-man exhibition at the Club Guatemala in 1945. In New York City, Dr. Guggenheim studied art and

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(continued) history at the Institute of Fine Arts, and received his Ph.D. in Anthropology from New York University. Dr. Guggenheim taught at MIT, in Boston, and was fellow at the Center for International Affairs at Harvard University. He traveled around the world for *LIFE* magazine in the years 1956–1957. Dr. Guggenheim founded *Project Guggenheim* in Mali, which builds art school in conflict areas such as Tibet and Guatemala. He donated major works to the Israel Museum in Jerusalem and prints from the Disaster of War series to the National Museum in Vietnam. Currently he is working on a monograph on Auschwitz based on his drawings at the Auschwitz Museum. (Drawing by Hans Guggenheim)

Chapter 1
Violence in Prolonged Conflicts and Its Socio-psychological Effects

Iris Lavi and Daniel Bar-Tal

Introduction

Violent conflicts between groups are inseparable part of human societies, and have been so for centuries. Recently, scholars have counted at least 240 armed conflicts between the years 1946 and 2008 (Harbom and Wallensteen 2009). Between 1990 through 1996 alone more than 90 armed conflicts took place (Jentleson 1996). Examination of the chronological development of these conflicts reveals several characteristics that may explain the persistence of these conflicts and their violent nature.

Violence in Conflicts

Protracted conflicts are defined as those that persist over a long period of time, despite a series of interventions that typically result in unacceptable settlements (Putnam and Wondolleck 2003). Violence in protracted conflicts usually involves a wide range of aggressive acts, beginning with destructions of properties, refugees' movement, imprisonments, expulsions, through killings and injuries as part of the "normal" violent encounters between the rivals, but also tortures and rapes, and ending with wide scale ethnic cleaning, mass killing and even genocide. Undoubtedly, as the events become harsher and more severe, they cause very severe reactions. Exposure to such violent events has detrimental effects on human beings.

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In addition to violence, prolonged conflicts always involve economic hardship. Such conflicts often lead to destruction that has economic implications. Second, protracted and violent conflicts require tangible spending in military means that, by definition, are at the expense of investments on other spheres of collective life. This may lead to a decrease of economic growth, unemployment and other economic-based hardships. As a result, members of such societies often suffer from economic deprivation. In addition, for many groups involved in vicious and long lasting conflicts, the conflict entails, among other expressions, severe limitations on movement, organization, the practice of religion, the manifestations of cultural identity, and the support of a particular ideology.

Although the reasons for the outbreak of conflicts differ considerably, it can be stated that in general such conflicts begin with a collision between needs or goals of 2 groups (see Bar-Tal 2013). These needs are viewed as existential by both groups. After a conflict erupts, several processes commence and lead to the continuation and/or escalation of the conflict.

Processes of Escalation and Continuation of Conflicts

As noted above, the initial stage of a severe conflict is characterized by a clash between the needs of 2 groups. The needs of one group collide with the needs of the opposing group, yet the first group views its goals as existential. In addition, grievances, objections, and contentions, as well as aspirations, claims and desires of one group are very often not responded with understanding by the other group, but with dismay, rejection, and even are countered with stronger actions. This sets the stage for the evolvement of a violent and protracted conflict.

As a reaction to the objection of needs, the side that raised the grievances or claims resorts to more serious steps in order to make the conflict more salient and more costly to the rival. In return, these steps are met with severe reactions and both sides raise the level of confrontation, entering into spiral cycles of reactions and counter reactions. Escalation also means that at this stage each side is determined to achieve its goals and neither side is ready to compromise, thus turning the conflict into zero-sum and insolvable.

A major qualitative change in the conflict occurs when the parties resort to *violence*. In some cases, the violence appears in the very early stages of the conflict when a party decides to use it in order to win the conflict or to signal its serious intentions. In all these situations, the dominant belief that the other party will yield only under pressure of violence is very central in the group that initiated the violence. Hostile acts are intensified, and include not only verbal rhetoric but acts that can be, as noted earlier, of wide variety. These actions are indicating the adherence to original goals with an attempt to overcome the rival by harming him. The mere use of violence is a very influential element that changes the nature of the conflict. Brubaker and Laitin (1998) observed: *Violence is not a quantitative degree of conflict but a qualitative form of conflict, with its own dynamics* (p. 426).

Why the Common Use of Violence in Protracted Conflicts?

Several factors can explain why parties resort to violence and continue with violent acts, even after these acts have claimed their toll (Bar-Tal 2013; Brubaker and Laitin 1998; Elcheroth and Spini 2011). Thus, in many conflicts use of violence is perceived as a *necessary evil*, mandatory in order to achieve the goals of the party. The party does not see any other way to achieve its goals but with use of violence. In conflicts that are over existential goals, related to the social identity of the group, or are viewed as of zero-sum nature, the use of violence is almost inevitable. This is due to the fact that when contentions are of such a large scale, they are scarcely satisfied by the other party. As a result, the claiming party has no choice but to resort to violence, as the rival party will not satisfy its needs without being forced to do so. In turn, the rival party has no choice but to answer with escalation, as it sees no way to satisfy the claiming party.

Violence also erupts often in conflicts in which one party is *not recognized as a legitimate* side to contentions, when there is a *great disparity of power* and when one side believes that it can *ignore the demands* of the other side, when there is *no institutionalized ways* to deal with the grievances, or when a party believes that using violence is the best way to achieve its goals. Hence, violence erupts in cases where a strong party decides to use it (e.g., the attack of Manchuria by Japan in September 1931), or when a weak party decides that only with violence it can demonstrate its determination and harm the strong rival (e.g., the anti-Apartheid organizations of the African National Congress [ANC] and the Pan Africanist Congress [PAC]).

In addition, the use of violence carries with it *a strong message*. The effects of the symbolic meaning of the violence go far beyond the actual loss of life that is the natural result of the violence. The violence signals the rival that it neither has the deterrent power nor control, that the party has a very strong will, commitment and determination to achieve its goal, that the party is not frightened and even expects retribution, that the party has the power to use violence and therefore resorts to extreme means. The use of violence is thus a powerful message that is well understood by the parties in conflict. Moreover, violence erupts when a party believes that it can *speed the achievement* of the goals by making the conflict very salient and costly to the other party. Also, society members participating in collective violence believe that their participation eventually advances collective well-being and achievement of goals (Ginges and Atran 2008).

Any analysis of violence in conflicts has to note that there are differences in defining violence. Groups greatly differ in this regard, trying to define violence according to their own goals and needs. In fact, one of the important psychological warfare that a group in conflict carries out includes different framings of its own and its rival's violence. Each group in conflict tries to present the violence of the other group as illegitimate, violating basic moral codes, planned, mal-intentional, and carried out because of evil inherent dispositions. At the same time it tries to hide its own violence, minimize its consequences, present it as a result of situational circumstances, and needed due to the behavior of the opponent (Bar-Tal et al. 2014; Staub 1989; Wohl and Reeder 2004).

Societal Consequences of Violence

Violence transforms the nature of the conflict meaningfully, sowing seeds for an emergence of vicious cycles of violence, for several reasons. First, the *goals of the conflict change:* from gaining the original goals, to harming the opponent and to stopping the opponent's violence. Thus, the goals of violence become somewhat separated from the goals of the conflict. Each side wants to stop the violence of the other side as a goal by itself and launch a revenge for the harm inflicted (Bar-Tal 2013). Pruit and Kim (2004) suggest that escalation indicates that the parties transformed their orientation. They moved from the wish to achieve goals to the desire to harm the opponent. In this line, Elcheroth and Spini (2011) make a convincing argument that the violence not only produces intensive animosity and hatred that feeds into the escalation of the conflict, but also transforms the involved groups into *confrontational societies*.

In long conflicts, groups may use a wide range of violent acts in order to stop the violence of the other group. Many parties increase the level of violence considerably, assuming that its increase will lead to cessation of violence by the rival group. In reality, however, the escalation frequently leads to spiral increases of violence as each side increases its own violence as a response to the violence of the other side. This leads to continuous violence that can be called *cultural violence* (Bar-Tal 2003; Galtung 1990).

Second, the violence leads to a *change in society norms*. Violence has an imprinting effect on the society that contributes to the escalation of the conflict (Elcheroth and Spini 2011). Once violence begins and enters into a vicious cycle, societies members develop new norms towards violence, harming and killing, which go well beyond the defined codes of moral behavior. First, together with the delegitimization of the rival and own perception, the victim develops a rational that "permits" harming the enemy. Following this, performance of acts of violence desensitizes the performers, leads to moral disengagement and, as a result, parties become capable and motivated to carry violence of wider scope and increased immorality (Bar-Tal et al. 2009). It becomes habitual and routinized activities that individuals can carry and involved societies tolerate and even encourage (Archer and Gartner 1984). Moreover, Lickel et al. (2006) proposed that use of violence leads to vicarious retribution: in-group members feel morally justified to avenge the harm incurred by an in-group member, by harming any member of the out-group. Cohrs and Boehnke (2008) have summarized general findings that bear on public support for violence. Generally, public attitudes toward use of violence are more supportive if society members: (1) perceive that an adversary poses a collective threat (2) feel angry and outraged, and (3) had suffered harm.

A third consequence of the violence is the development of an *encapsulated environment of conflict*. Ongoing information about the conflict flows continuously in societies engulfed by protracted conflicts. This information is mostly negative and touches on such topics as performed violent acts, various future threats, economic negative prognosis, and restrictions of freedom. It creates an encapsulated environment in which the participating society members live. They hear about the conflict, its effects and implications in all spheres of life on a daily basis. The conflict, with its events and processes, becomes an inseparable part of the lives of society members, through personal experiences and through absorption of information. This daily life reflects the banality of the conflict life.

Personal Consequences of Living in a Society in a Protracted Conflict

The violence embedded in protracted conflicts causes individuals to be exposed to such violence. This can be as a result of direct participation in violence (e.g., as soldiers or fighters); as being victims of harm inflicted on civilian population; as directly observing violence; or as society members that are provided information about violence of the conflict through various channels of communication. All these experiences are not mutually exclusive, and a person can be exposed to various forms of violence, through different ways.

Violent and prolonged conflicts inflict severe and harsh negative experiences, such as threat, pain, exhaustion, grief, trauma, misery, insecurity, fear, hardship, and cost, both in human and material terms (see for example, Collier 1999; de Jong 2002; Hobfoll et al. 1989; Kalyvas 2006; Milgram 1986). Such conflicts demand extensive psychological investment in their continuation, which could lead to state of chronic fatigue and exhaustion. Milgram (1986) proposed that the effects of these experiences should be evaluated on the basis of their duration, intensity, multiplicity, palpability, probability and personal relevance. Thus, it is possible to say that they have more effects on the participating society members the more durable the conflicts, the more intense they become, the more often they occur, the more repeatedly they take place on a wider scale, and the more probable their occurrence is.

In cases of prolonged and violent conflict all these parameters exist. The negative experiences are not limited to a defined period of time, but last for years, decades and sometimes even centuries. In most cases, society members cannot predict when the conflict will end or even when it will deescalate. Moreover, the negative experiences are, from time to time, even of very high intensity and are repeated time after time often on a very wide scale, as there is no member who does not experience them – at least vicariously. In many cases, almost every society member was either hurt, suffered economic hardship, observed violence, and had someone close who suffered or experienced the violence through mass media and personal stories. Thus, the negative experiences are relevant to almost all, if not all, society members involved in these protracted and violent conflicts.

Chronic Threat

One of the salient characteristics of protracted and violent conflicts is chronic threats. These threats may pertain to loss of life, injuries and loss of housing or jobs. Many of these threats are continuous and disturb the flow of normal life. Also, these conflicts often lead to behaviors that violate moral codes. Thus, society members may experience distress as result of guilt and shame. These feelings pose threat to positive social identity as well as to personal esteem. Society members do not have to perform immoral acts themselves in order to feel threats to their identity, as it is enough to be members of the group in which other members carry these acts to be in a state of threat. All these deprivations lead to negative psychological reactions, such as feelings of distress, exhaustions, hardship, misery and suffering.

In this analysis it is possible to rely on the conceptualization of Stephan et al. (Stephan and Renfro 2002; Stephan et al. 2008), who proposed that 2 types of threats play a major role in intergroup relations: *realistic* and *symbolic threats*, on the group and individual levels. *Realistic threats* refer to beliefs about possible human losses, or about losses and harms of a territory, resources, economy, power, status, or general welfare. *Symbolic threats* refer to world views about harms in religious, political, moral, and/or cultural system of beliefs, attitudes and values. Thus, experiences of threat in their large scope are a dominant factor that has major implications on the life of societies involved in protracted violent conflicts.

The following sections will detail some of the major consequences of contexts of prolonged and violent conflicts with its psychological conditions of threat (Bar-Tal and Halperin 2013). The heart of these consequences lies in the fact that participants in violent conflicts are exposed to violence and threats.

Psychological Distress

Numerous studies conducted in various conflict settings around the world documented the prevalence of stressful experiences that such conflicts entail, as well as the adverse effects of these experiences have on the mental health of members of conflict societies. *Posttraumatic reactions* and *depression* are the most commonly investigated psychiatric responses to conflict-related violence exposure. Studies indicate that exposed adults show higher levels of distress, expressed in posttraumatic reactions (Besser et al. 2009; Canetti-Nisim et al. 2009; de Jong et al. 2001; Galea et al. 2002; Muldoon and Downes 2007) and depression (Bolton et al. 2002; Canetti et al. 2010; Galea et al. 2002). These reactions are not limited to adults, who are often active participants in conflicts, but characterize exposed children's reactions (Almqvist and Broberg 1999; Dyregrov et al. 2000; Lavi and Slone 2011).

It is important to note that while most studies show a relation between exposure to conflict-related events and distress, studies exemplifying resilience in the face of such events are also prevalent. For instance, a study conducted in Israel that examined the effects of conflict-related trauma exposure on posttraumatic and depressive reactions did not find such a relation (Bleich et al. 2003). In addition, the relative focus given to posttraumatic and depressive symptoms has been accompanied by a parallel focus on a wider range of positive and negative effects, such as optimism, help-seeking, coping (Bleich et al. 2003), posttraumatic growth (Hall et al. 2010) insecure attachment (Besser et al. 2009), and chemical use/abuse (Vlahov et al. 2004). These studies demonstrate both the wide ranging effect of exposure to such events and that the effects are pervasive and not confined to posttraumatic and depressive reactions. In sum, psychological distress that results from exposure to violence in conflicts leads to a broad marker of painfully experienced emotions, cognitions and behaviors, which may consequently lead to deterioration in functioning and to other health problems.

Loss of Resources

The 'conservation of resources theory' (COR theory) (Hobfoll 1988, 1989) is an example of particular theory that deals with the effects of exposure to violence, may serve as an explanation to the exposure-distress link described above. COR theory is based on the tenet that people strive to obtain, retain, and protect their resources. Resources are defined as objects, personal characteristics, conditions, or energies that people value. Exposure to traumatic events increases psychological distress because it results in both major and rapid loss of personal and social resources. Resistance to the effects of stress is due to having or investing resources. Persons who lack additional resources are less capable to obtain new resources and are therefore more vulnerable to further losses and to the effects to stressful situations. One additional main feature of COR theory is that resources gain salience during times of actual or threatened loss (Hobfoll 1989, 2002). Empirical studies have shown that loss of resources mediates the relation between exposure to conflict-related violence and psychological distress (Canetti et al. 2010).

This cycle of resource loss may itself be a multi-step process. First, exposure to violence may result in loss of objective resources. People may lose friends and family, employment opportunities or the ability to work due to destruction of workplace settings, safety going to work, and downturns in the economy. Resources can be lost directly due to exposure to violence, for example, when family or close friends are killed or injured or where places of employment are destroyed. Also, the threat of violence has an effect, for instance, when individuals may restrict their social relationships due to fear of going out. These objective losses are, in turn, linked to loss of what has been termed higher level of management resources (Thoits 1994), specifically, generalized self-efficacy and perceived social support. As both objective resources and perceived management resources diminish, people are more likely to develop psychological distress in the form of posttraumatic reactions, depression, and other psychological symptoms. They are also more likely to perform other unhealthy behaviors in terms of increased chemical use/abuse and increased smoking. Those who are able to sustain greater generalized self-efficacy and perceived social support will, however, be less likely to develop psychological distress, and will be less likely to increase their use/abuse of chemicals and smoking.

In particular, generalized self-efficacy and perceived social support will have both direct effects limiting psychological distress, and compromised health behavior. These management resources also have stress-moderator effects, limiting the otherwise deleterious impact of exposure to violence. Further, when multiple acts of violence occur, even those who originally had strong resource reservoirs are likely to experience increased levels of resource loss – resource loss cycles. Nevertheless, those with greater self-efficacy and social support will still have more favorable outcomes.

In addition to psychological distress, literature accumulated on the effects of exposure indicated several more cognitive-oriented effects: higher levels of mistrust, negative emotions and threat perceptions.

Mistrust

The continuation of the conflict leads to heightened levels of mistrust between the individuals of rival parties (see Bar-Tal et al. 2010). Mistrust denotes lasting expectations about future behaviors of the rival group that affect welfare of the in-group and does not allow taking risks in various lines of behaviors (Bar-Tal et al. 2010). These expectations refer to the intentional negative behaviors of the rival group that have an effect on the welfare and well-being of the in-group, as well as to the capability that the rival groups has to carry these negative behaviors. Since these 2 lines of expectation are orthogonal, in cases of severe conflict the group expects only harming acts and does not expect any positive behaviors by the rival. Attribution of mal-intentions of the rival to stable dispositions with the rival's high capability leads to very high level of mistrust.

Mistrust is an integral part of any prolonged and violent conflict, at least in its initial escalating phase. It can develop without eruption of violence, on the basis of the deteriorating relations during the outbreak of the conflict. It develops because the parties do not see any possibility to reach an agreement and embark on the path of serious confrontation (Webb and Worchel 1986). The use of violence increases levels of mistrust greatly. In fact, violence continuously validates mistrust of the rival because of the intentional harm inflicted on the group.

At the same time, mistrust forces carrying out negative defensive behaviors such as retribution for the harm already afflicted. But it also may lead to preemptive violent acts with the intention to prevent possible harm by deterring the rival. Mistrust also closes a possibility of any meaningful channel of communication that can advance peaceful solution to the conflict. In all cases of protracted conflicts, mistrust is part of the hostility syndrome that, together with violence and delegitimization of the rival, leads to its escalation.

Emotions in Times of Conflict

Participation in conflict with its exposure to violence and threats leads to negative emotions (Halperin et al. 2011). In the early stages of escalation of a conflict, emotions of anger, fear and hatred are highly characteristic. Perception of events as unjust, unfair or as deviating from acceptable societal norms leads to *anger* (Averill 1982), and so do appraisals of relative strength and high coping potential (Mackie et al. 2000). Anger is related to attribution of blame to the out-group (Halperin 2008b; Small et al. 2006), support of continued military responses (Cheung-Blunden and Blunden 2008; Huddy et al. 2007; Lerner et al. 2003; Skitka et al. 2006), appraisal of future military attacks as less risky (Lemer and Keltner 2001) and forecast of more positive consequences of such attacks (Huddy et al. 2007).

Perceived threat and danger to individuals and/or their environment or society lead to the development of *fear* (Gray 1989; Jarymowicz and Bar-Tal 2006). Fear is related to increased risk estimates and pessimistic predictions (Lerner and Keltner 2001), appraisal of low strength and low control over the situation (Roseman 1984), and to a tendency to avoid confrontation and to create a safe environment (Frijda et al. 1989; Huddy et al. 2007; Lerner et al. 2003; Roseman et al. 1994). Once fear is evoked, it limits the activation of other mechanisms of regulation and stalls consideration of various alternatives because of its egocentric and mal-adaptive patterns of reactions to situations that require creative and novel solutions for coping. Empirical evidence shows that fear has limiting effects on cognitive processing. It tends to cause adherence to known situations and avoidance of risky, uncertain and novel ones; it tends to cause cognitive freezing, which reduces openness to new ideas and resistance to change (Clore et al. 1994; Isen 1990; Jost et al. 2003; Le Doux 1995, 1996).

Finally, fear motivates defense and protection from events that are perceived as threatening. When defense and protection are not efficient, fear may lead to aggressive acts against the perceived source of threat (Bandura and Walters 1959). That is, when in fear, human beings sometimes tend to cope by initiating fight, even when there is little or nothing to be achieved by doing so (Blanchard and

Blanchard 1984; Eibl-Eibesfeldt and Sütterlin 1990; Jarymowicz 2002; Plutchik 1990).

Hatred in times of conflict is directed at the rival group and denounces them fundamentally and all inclusively (Sternberg 2003). It is a secondary, extreme, negative emotion (Royzman et al. 2005; Sternberg and Sternberg 2008) with a potentially destructive impact on intergroup relations (Halperin 2008b; Petersen 2002; Volkan 1997). It is the most destructive emotional sentiment that influences beliefs, attitudes and behaviors at the stage of conflict outbreak. It is associated with very low expectations for positive change and with high levels of despair. This is because it involves appraisal of the behavior of the out-group as stemming from a deep-rooted, permanent evil character. As with anger, hatred automatically increases support for initiating violent actions and for escalating the conflict (Halperin 2008a; Staub 2005).

Political Extremism

The distress and negative emotions that result from exposure to conflict-related violence are not the final consequence of this exposure. The relation between exposure to violence and political extremism has also been studied. In the context of the effects of conflict-related violence, political extremism has been largely defined as beliefs that express support for less liberal-democratic values, norms or attitudes: what is generally termed right-wing authoritarianism (Canetti-Nisim 2003). Interestingly, exposure does not affect political extremism directly. Recent explorations reveal that being exposed to such violence does lead to political extremism, but only through the mediation of negative emotions such as hatred (Halperin et al. 2009) and through psychological distress and threat perceptions (Canetti-Nisim et al. 2009). As will be detailed below, these extreme views serve a psychological need, as they justify the personal sacrifices that are a part of the conflict. These views also contribute to further escalation of the conflict and lead to its perpetuation.

Deprivation of Needs

The experiences by group members living under conditions of prolonged and violent conflict also lead to a deep deprivation of their needs. Fulfillment of physiological needs is a precondition for human survival; yet, the fulfillment of psychological needs has a crucial role for human functioning as individuals and as a part of a collective. Deci and Ryan (2000) defined psychological needs as *nutriments that are essential for ongoing psychological growth, integrity, and well-being* (p. 229).

First, in times of violent and prolonged conflict, society members live under continuous situation of uncertainty and ambiguity. They do not know when the next round of violence will take place, when an act of violence will occur, when something bad will happen to them or to someone dear to them. They live in a world that not always has a meaning to them. Questions regarding the goals of the rival and its violent behavior arise, as well as questions regarding goals of their own group and wisdom to engage in the conflict. In such a context, individuals often feel they do not have a control over the situation and they do not have mastery over their fate. They feel they live in an unpredictable setting of helplessness and hopelessness.

The deprived psychological needs are various: epistemic needs, mastery needs, safety needs, needs to be right (justice needs), and positive personal and social identity. Thus, prolonged and violent conflicts lead to a state of deprivation of these needs and to threats of further deprivation, which create difficulties, hardship and suffering (Azar 1986; Burton 1990; Galtung 1996; Staub 1989; Staub and Bar-Tal 2003).

Positive Influences

In parallel to the harsh effects of conflicts, the context of violent conflicts also raises feelings of resentment, a striving for justice, feelings of determination and a sense of solidarity. Also, during these conflicts collective life is marked by continuous confrontation that requires mobilization and sacrifice of the group members. These experiences may be called positive as they play a major role in energizing and mobilizing society members to take part in the protracted conflict. These experiences lead to achievement of goals and collective self-efficacy and sense of accomplishment. They underlie a feeling of pride and satisfaction that are very important for enhancement of motivation and mobilization.

Societal and Personal Coping with the Challenges of Living in a Violent and Prolonged Conflict

From a socio-psychological perspective, adaptation to violent and prolonged conflicts requires meeting 3 basic challenges: coping with stress, satisfying deprived needs and facilitating the confrontation with the enemy by constructing a meaningful, coherent, and systematic perspective of the conflict (Bar-Tal 2007, 2011).

Coping with Stress

Learning to cope with stress, fears, and other negative psychological phenomena that accompany violent and prolonged conflict situations is an essential challenge of living (Mitchell 1981). Societies involved in these conflicts are required to live under difficult conditions of violence, human loss, threat and danger, demands for resources, and other hardships for extended periods of time. Therefore, one of the challenges that involved societies face is the development of appropriate psychological mechanisms, on both individual and collective levels, for coping with these difficult conditions of stress.

Satisfying Deprived Needs

During prolonged and violent conflicts it is necessary to satisfy needs that remain deprived, such as psychological needs of knowing, feeling certainty, mastery, safety, and positive identity (Lederer 1980; Staub 2011). If people are to function properly as individuals and society members, their needs must be fulfilled (Maslow 1954). Specifically, as described, epistemic, safety, mastery and positive self-evaluation needs are especially compromised due to the continuation of a violent conflict, and they need to be met (Maslow 1954; Tajfel 1981).

Facilitating the Confrontation with the Enemy by Constructing a Meaningful and Coherent Perspective on the Conflict

Adaptation requires development of socio-psychological conditions that will be conducive to successfully withstanding the rival group, that is, to try to win the conflict or, at least, not to lose it. Successful withstanding enables groups to maintain intense conflict with an opponent over time, with all concomitant challenges and adjustments that this context entails on a personal and societal level. Groups have to prepare themselves for a long struggle and this requires recruitment and mobilization of society members and immense investment in material resources. For these purposes, they first need to develop well-grounded justification for the conflict as well as a system of socio-psychological conditions such as care, loyalty, commitment to a society and country, adherence to the society's goals, high motivation to contribute, persistence, readiness for personal sacrifice, unity, solidarity, determination, courage, and endurance.

Evolvements of Functional Socio-psychological Repertoire

In view of the described above, societies develop a *functional socio-psychological repertoire* that allows meeting the above 3 challenges. This repertoire includes shared beliefs, attitudes, affects and emotions and provides the necessary condition for successful adaptation to the conditions of prolonged and violent conflict (Bar-Tal 2007, 2011).

This view on functioning of a constructed societal belief system is based on previous works indicating that in times of stress and deprivation there is need to form a world view that provides meaning. The concept of *finding meaning* is commonly defined as an ability to integrate experiences into a world view that is coherent, comprehensible and makes sense of the situation (Davis et al. 1998). Numerous theories have addressed the role of meaning in the coping process and its relationship to an organizing worldview. Some of these theories have provided general definitions of the concept of meaning and outline worldviews that provide meaning, whereas others have developed and elaborated particular worldviews that contribute to meaningful coping.

Frankl (1963, 1978) developed his approach partly on the basis of his experiences in a concentration camp during the Holocaust. Frankl observed that a central characteristic of individuals who were able to cope and survive under extremely difficult conditions was the ability to *transcend* their immediate survival concerns and find meaning and purpose in their struggles and suffering. According to his approach, believing that there is a person, idea or value that is worth fighting for, as well as being able to identify opportunities in given situations, are crucial factors that facilitate both survival under extremely difficult conditions and high quality of life in more normal circumstances.

Similarly, according to Antonovsky (1987), who worked in Israel with stressful conflict experiences, the most important factor that contributes to successful coping with traumatic events and prevents their adverse effects on health is a *sense of coherence*. In his view, sense of coherence is a general cognitive orientation comprised of 3 themes: comprehensibility, manageability and meaningfulness. *Comprehensibility* is defined as the extent to which individuals perceive information that they encounter as making sense as well as being consistent, structured, clear, and predictable. *Manageability* refers to the extent to which individuals perceive the resources at their disposal or at the disposal of legitimate others as adequate for meeting the demands posed by stimuli in their environment. *Meaningfulness* refers to the extent to which individuals experience life emotionally as making sense, and believe that certain life domains are worthy of an investment of effort, energy, and commitment even if they pose difficulties and demands. In other words, a sense of meaningfulness involves seeing difficult stressful situations as a challenge rather than a burden.

According to Taylor (1983), most people are capable of adapting and coping successfully with difficult threatening events. Coping with threatening events requires a process of *Cognitive Adaptation*, which involves 3 component processes.

The first process is *a search for meaning* in the threatening event, which involves attempts to understand the causes of the event, its significance, its symbolism for the individual and its implications for the individual's life in the present and future. Finding meaning facilitates the second process of cognitive adaptation, which is *a sense of mastery* and control over the threatening event and a belief that it can be prevented from recurring. The third process involved in cognitive adaptation is *self-enhancement*. Threatening events often take a toll on individuals' self-esteem, and therefore the process of adaptation involves the restoration of positive self-esteem. Self-enhancement is achieved by focusing on the positive consequences of the threatening events and by making downward comparisons, i.e., comparing one's own condition to the conditions of those who are even less fortunate.

According to *Terror Management Theory (TMT)*, humans have developed sophisticated intellectual capacities, which enable self-awareness and recognition of the inevitability of death (Greenberg et al. 2008, 1997; Solomon et al. 1991). This recognition gives rise to the *terror of death*, but also encourages creation of a mechanism for managing and controlling this terror. One of the human mechanisms of *terror management* is culture, which includes beliefs about the world, nature and reality that are shared by humans belonging to various groups. The world view constructed in a culture allows individuals to perceive the world and human existence as meaningful, orderly and stable, and instills standards of significant values that give reasons to live.

Living up to these standards contributes to individuals' sense of self-esteem by means of a cultural promise of literal or symbolic immortality. Symbolic immortality is provided by identifying with collectives that are larger and longer lasting than the individual, as well as with their system of beliefs. Hirschberger and Pyszczynski (2010, 2011) applied this line of thoughts to situations of violent conflicts and pointed out that in times of threats individuals tend to support coherent and simplistic militaristic views that fuel the continuation of the intergroup conflict. In this line, a study by Landau et al. (2004) showed that in the USA increased salience of mortality in view of threats (9/11 terror attack) led to bolstering of adherence to symbols and policies that constitute the dominant cultural worldview, propagating a patriotic position.

Socio-psychological Infrastructure

Thus, in line with the above described approaches it is suggested that society members develop a specific *socio-psychological repertoire* that allows them to view the conflict situation in a comprehensive, coherent and meaningful way. This repertoire supplies an understanding as to fundamental questions regarding the conflict: what is the conflict about, why it erupted, why the rival opposes the goals of the in-group and resorts to violence, why the in-group has to struggle violently for the goals, what is the difference between the in-group and the rival, why the conflict continues for such a long time, what are the conditions that facilitate coping with the rival, and so on.

With time, this repertoire turns into a *socio-psychological infrastructure*, which means that the shared repertoire gradually crystallizes into a well-organized system of societal beliefs, attitudes and emotions and penetrates into institutions and communication channels of the society. This socio-psychological infrastructure consists of 3 central interrelated elements: collective memories, ethos of conflict and collective emotional orientation (Bar-Tal 2007, 2011).

Collective memory consists of societal beliefs that present the history of the conflict to society members (Cairns and Roe 2003; Connerton 1989; Halbwachs 1992; Wertsch 2002). This narrative develops over time, and the societal beliefs describe the conflict's eruption and its course, providing a coherent and meaningful picture (Devine-Wright 2003). *Ethos of conflict* is defined as a configuration of central societal shared beliefs that provide particular dominant orientation to a society and give meaning to the societal life, under the conditions of prolonged and violent conflict[1] (Bar-Tal 2000). It supplies the epistemic basis for the hegemonic social consciousness of the society and serves as one of the foundations of societal life in times of protracted conflict (Bar-Tal et al. 2012). *Collective emotional orientation* refers to the characterizing tendency of a society to express 1 or more particular emotions under the conditions of prolonged and violent conflict (Bar-Tal 2001; Bar-Tal et al. 2007).

Recently, Sharvit (2008) carried studies within the present conceptual framework and showed experimentally that when individuals are exposed to stress, they adhere to societal beliefs of ethos of conflict in an unconscious way. She suggested that the reasons for this high accessibility and easy activation of the ethos beliefs among Israeli Jews are their acquisition at an early developmental stage and the constant exposure to it due to its frequent expressions in societal channels of communication. These findings held true across all the sectors of the Jewish Israeli society, including liberal-dovish middle-upper class.

Lavi et al. (2014) carried a wide scale study which examined the effect of ethos of conflict among Israeli Jews and Palestinians in the territories under the rule of the Palestinian Authority. Results of this study show that in violent and stressful context of prolonged conflicts, the ethos of conflict has a protective function. As

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[1] Ethos of conflict is composed of 8 major themes about issues related to the conflict, the ingroup, and its adversary: societal beliefs about (1) *justness of one's own goals*, which outlines the contested goals, indicates their crucial importance, and provides their explanations and rationales; (2) *security*, stresses the importance of personal safety and national survival, and outlines the conditions for their achievement; (3) *positive collective self-image*, concerns the ethnocentric tendency to attribute positive traits, values, and behavior to one's own society; (4) *victimization*, concerns the self-presentation of the ingroup as the victim of the conflict; (5) *delegitimizing the opponent*, concerns beliefs that deny the adversary's humanity; (6) *patriotism*, generates attachment to the country and society, by propagating loyalty, love, care, and sacrifice; (7) *unity*, refers to the importance of ignoring internal conflicts and disagreements during intractable conflicts to unite the society's forces in the face of an external threat; Finally, (8) *peace*, refers to peace as the ultimate desire of the society (Bar-Tal 2000, 2007; Rouhana and Bar-Tal 1998).

a kind of ideology, it enables society members to find predictability and meaningfulness, even when they are confronted with harsh events of violence, much like a system justifying beliefs (Jost and Hunyady 2003). In addition, ethos of conflict adherence may reduce experience of stress because it may affect the appraisal of violent events – that is, society members who adhere to ethos of conflict tend to believe that the conflict is mandatory, cannot be avoided, and therefore they accept the violence as consequences of the unavoidable conflict. Finally, adherence to ethos of conflict may also effect secondary appraisal (Lazarus and Folkman 1984), by fostering determination and a sense of control that assists in making post-event coping decisions. When exposed to violent events, society members with high ethos endorsement may believe that they are a part of a nation that has been coping with hardships for centuries, and thus has the stamina to continue coping.

Culture of Conflict

Eventually, the infrastructure of collective memory, ethos of conflict and collective emotional orientation becomes well institutionalized and disseminated and thus serves as a foundation to the development of a culture of conflict that dominates societies engaged in protracted conflicts (Bar-Tal 2013). A *Culture of conflict* develops when societies saliently integrate into their culture tangible and intangible symbols which are created to communicate a particular meaning about the prolonged and continuous experiences of living in the context of conflict (Geertz 1973; Ross 1998). Symbols of conflict become hegemonic elements in the culture of societies involved in protracted conflict. They provide a dominant meaning of the present reality, of the past, and of future goals, and serve as guides for practice. Solidification of the socio-psychological infrastructure, as an indication of the development of culture of conflict, includes the 4 following features:

(1) Extensive sharing: beliefs of the socio-psychological infrastructure and the accompanying emotions are widely shared by society members. Society members acquire and store this repertoire as part of their socialization from an early age on. *(2) Wide application*: institutionalization means that the repertoire is not held by society members only, but also put into active use by them in their daily conversations, being chronically accessible. In addition, it appears to be dominant in public discourse via societal channels of mass communication. It is often used for justification and explanation of decisions, policies and courses of actions taken by leaders. Finally, it is also expressed in institutional ceremonies, commemorations, memorials and so on. *(3) Expression in cultural products*: the institutionalization of the socio-psychological infrastructure also occurs through cultural products such as literary books, television programs, films, plays, visual arts, monuments, etc. It becomes a society's cultural repertoire, relaying societal views and shaping society members' beliefs, attitudes and emotions. Through these channels it can be widely disseminated and can reach every sector of the public. *(4) Appearance in*

educational materials: the socio-psychological infrastructure appears in textbooks used in schools and even in higher education as central themes of socialization.

In time, the learned, absorbed, shared and institutionalized culture of violence serves as *a prism* through which society members collect information and interpret new experiences. The vicious cycle of prolonged and violent conflict is established in this manner, as the new experiences and information are interpreted in light of the pre-held repertoire. Following this, new experiences validate the pre-held beliefs of collective memory, ethos of conflict and shared emotions which in turn lead to courses of action that trigger the same cycle with the rival. In many ways, the culture of violence prevents new perceptions of the conflict, preserves the ongoing perceptions, and thus perpetuates its continuation.

Conclusion

Conflicts between groups undergo a qualitative change when violent acts are being perpetrated. During these conflicts, violence is often considered a necessary unavoidable evil. Violent acts become the choice of action when one group does not see any other way to achieve its goals. However, turning to violence commences a spiral of deterioration that is very difficult to cease.

The continuation of a violent conflict and the violence it entails leads to several consequences on the personal and societal level. Such conflicts demand major economic and emotional investments, and have a harsh personal toll on populations of the area. This toll is collected in the form of chronically elevated levels of threat perceptions as well as mental health problems and negative emotions. In addition, societies in prolonged and violent conflicts come to develop a culture of conflict that has advantages of meeting basic challenges that societies involved in these conflicts face. However, the same culture of conflict has consequences to the protraction of the conflict and turning it into being intractable[2] (Bar-Tal 2013).

The processes described above occur simultaneously by the 2 parties in the conflict. Considering this co-occurrence can explain how the vicious cycle of violence operates. The conflict leads each of the opponents to develop this culture of conflict with a socio-psychological infrastructure. This development leads to emergence of "mirror image" of such an infrastructure, which indicates a great similarity of negative general beliefs and attitudes that each side holds about the conflict, the other side and own group (Bronfenbrenner 1961; Kelman 2007). With time, however, this infrastructure comes to serve as a major motivating, justifying and rationalizing factor of the conflict. Any negative actions taken by one side in the

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[2] Intractable conflicts are characterized as lasting at least 25 years, over goals that are perceived as existential, being violent, perceived as unsolvable and of zero-sum nature, greatly preoccupying society members, with involved parties heavily investing in their continuation (see Azar 1990; Bar-Tal 1998, 2007; Kriesberg 1998).

conflict then serve as information validating the existing socio-psychological infrastructure for the other side and in turn magnify its motivation and readiness to engage in conflict. The behaviors of each side confirm the pre-held socio-psychological infrastructure and justify harming the opponent. Thus, the challenge for the societies involved in these conflicts and the international community is to stop this cycle of violence and embark on the road of peace.

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Chapter 2
Intergenerational Transmission of Violence

Cathy Spatz Widom and Helen W. Wilson

Introduction

Living in a violent home and child maltreatment are major public health and social justice concerns that affect numerous children and adolescents in the USA and around the world (Gilbert et al. 2009). In fiscal year 2010, nearly 3 million children were referred to child protection service agencies for suspected maltreatment in the USA. Of them, about 700,000 children were determined by state and local child protective service agencies to be victims of maltreatment, and about 1,700 children died as a result of child abuse or neglect (U.S. Department of Health and Human Services 2011). The Office of Juvenile Justice and Delinquency Prevention Bulletin (Finkelhor et al. 2009) reported that 60.6 % of children in a US national survey were exposed to violence during the past year, either directly or indirectly. The costs of child maltreatment in the USA have been estimated to be in the billions of dollars annually (Wang and Holton 2007) and lost income (Currie and Widom 2010). As an abused or neglected child matures, the social costs of maltreatment shift to the adult criminal justice system, rehabilitation services, and income maintenance systems. Other evidence suggests that as many as 10 million US children witness violence between their caregivers each year (Straus 1991). Although children can encounter violence in a number of settings, violence in the home may have the greatest impact on children's development (Margolin and Gordis 2000; Osofsky 1999).

One of the most common assumptions in the scholarly and popular literature refers to a "cycle of violence" or the "intergenerational transmission of violence",

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whereby experiencing violence in childhood is thought to lead to the perpetration of violence in adolescence and adulthood. In an early clinical note entitled "Violence Breeds Violence – Perhaps?", Curtis (1963) expressed concern that abused children would *become tomorrow's murderers and perpetrators of other crimes of violence, if they survive* (p. 386). Since then, this notion has been supported by case reports and empirical evidence suggesting that perpetrators of violence often come from violent family backgrounds (Langhinrichsen-Rholing 2005). Many theories have been put forth to explain this intergenerational cycle of violence, where childhood victims of violence are believed to grow up to perpetrate violence or to abuse their own children and partners.

In this chapter, we first describe a number of prominent and frequently cited theories describing how victimized children may grow up to become violent offenders. The second part of this chapter reviews the empirical evidence on the "cycle of violence", and the final section describes a variety of interventions that might be implemented to "break" the cycle of violence. We provide a vignette to illustrate possible points of intervention in the life of a maltreated child. Finally, we conclude with a brief comment on recommendations for research and practice.

Theoretical Mechanisms to Explain the "Cycle of Violence"

Social Learning Theory

Social learning theory is perhaps the most popular theory that has been used to explain the intergenerational transmission of violence. This model suggests that children acquire behaviours through modelling and reinforcement contingencies in the context of social interactions (Bandura 1973). Children learn behaviour, at least in part, by imitating other people's behaviour, and observed behaviour is particularly salient when the model is someone of high status, such as a parent. Thus, physical aggression within a family provides a powerful model for children to learn aggressive behaviours and gives the message that such behaviour is appropriate (Bandura 1973). As suggested by White and Straus (1981), physical punishment *lays the groundwork for the normative legitimacy of all types of violence*. As evidence for social learning, research has found that children who experience corporal punishment that is not necessarily abusive (e.g., spanking) were more likely to view aggression as an effective strategy for resolving interpersonal conflicts (Simons and Wurtele 2010).

In their "coercion model", Patterson et al. (1992) expanded upon social learning theory to incorporate the role of peers. This model suggests that coercive interactions between parents and children foster aggressive behaviour in children, which leads to coercive interactions with peers and association with deviant and aggressive peers. In this trajectory, peer interactions provide further social modelling and reinforcement of aggressive behaviour initially learned at home.

Attachment Theory

Bowlby's (1969) attachment theory has also played an important role in attempts to understand the development of violent behaviour in children who grow up in abusive childhoods. Attachment refers to the early bond that an infant develops with a caretaker, and it is the basis for an "internal working model" of the world that functions as a framework for subsequent interactions with the interpersonal environment, including other caretakers, school, peers, romantic partners, and the community at large. According to attachment theory, abuse, inconsistency, or rejection from a primary caretaker disrupts attachment and leads children to develop a hostile view of the world and other people (Ainsworth 1989). Children from abusive backgrounds, thus, tend to perceive ambiguous interactions with others as hostile and to respond aggressively (Egeland 1993). This pattern can develop into violent behaviour in adulthood. For example, recent findings with "at risk" mothers indicated that poor attachment history significantly predicted child abuse potential (Rodriguez and Tucker 2011).

Social Information Processing

In another attempt to explain the cycle of violence, Dodge, Bates and Pettit (1990) have suggested that severe physical harm during early childhood (before age 5) leads to chronic aggression by bringing about the development of biased and deficient social-information- processing patterns. Similar to attachment theory, this model suggests that abused children tend to perceive hostile intent in ambiguous and harmless interactions. Lending empirical support to this hypothesis, Dodge and collaborators (1990) found that 4-year-old children whose mothers reported having used physically harmful discipline evidenced deviant patterns of processing social information at age 5. These biased social information processing patterns were, in turn, associated with aggressive behaviour. Relative to other children, physically harmed children were significantly less attentive to relevant social cues, more likely to attribute hostile intent to others' actions, and less likely to generate effective solutions to problems. Such children might then respond aggressively to ambiguous, harmless interactions.

Neurophysiological Models

Childhood violence exposure may also result in physiological changes that relate to the development of violent behaviour. The physiological effects of stress are indicated as key mechanisms explaining the connection between childhood trauma and maladaptive outcomes (De Bellis 2001). Repetitive activation of physiological stress response processes can have a global and adverse impact on neurological development, impeding capacities related to stress response and coping, managing emotional arousal, planning, and decision-making (De Bellis 2001; Glaser 2000). Physiological response to stress involves coordination of multiple systems, including the catecholamine system (e.g., epinephrine, norepinephrine), the sympathetic nervous system (SNS), and the hypothalamic-pituitary-adrenal (HPA) axis. Typically, the initial "fight or flight" HPA-SNS response dissipates as an elevation in cortisol triggers the return of the brain to a state of homeostasis, and cortical processes are engaged to manage the stressful situation. However, dysregulation of these systems and related deficits in prefrontal cortex functions inhibit an effective response to stress. Chronic exposure to stress, such as child abuse, may result in an elevated stress response, which is thought to prime individuals to act aggressively in stressful situations, or to a diminished response associated with desensitization to stress (De Bellis et al. 2001; Sanchez and Pollak 2009).

Research with animal models has supported these neurobiological processes involved in the cycle of violence (Sanchez and Pollak 2009). For example, a recent study with Nazca booby birds found that nestlings "maltreated" by non-parental adults were more likely to maltreat other nestlings in the future, and the nestling maltreatment episodes were associated with increased corticosterone concentration, indicating HPA activation (Grace et al. 2011). Studies with non-human primates have also found changes in central nervous system neurotransmitter activity associated with rearing experiences. Rhesus monkeys that were rejected by their mothers in the first 6 months of life had lower levels of the serotonin metabolite 5-HIAA (Maestripieri et al. 2006). Although the extent to which one can generalize from this research to humans is questionable, the striking similarities between the concepts operationalized in the non-human models (stress, anxiety, and rearing conditions of maltreatment) and in the child development literature (Crittendon and Ainsworth 1989) invite serious consideration.

Behavioural Genetics

The theories described above presume that the cycle of violence is due to the direct effects of being exposed to a violent childhood environment. However, there are a variety of behaviour genetic theories that have been developed recently to explain the intergenerational transmission of violence (Jaffee 2012). The first and simplest theory suggests that the intergenerational cycle of violence is explained, at least in part, by transfer of inherited traits from parents to offspring. In other words, family resemblance in violent behaviours is due to shared genetics, rather than the environmental effects of violence (Hines and Saudino 2002). Violent parents are more likely to abuse their children and also to transmit increased genetic risk for violent behaviour (Koenen et al. 2005). Thus, maltreatment could be a marker of genetic risk for violence (i.e., having antisocial parents) rather than the cause of violence (Jaffee et al. 2007). A second perspective suggests that aggressive genotypes in children could bring about abuse from parents. However, twin studies (either with children or parents) have not supported these hypotheses and, instead, confirm a direct relationship between rearing environment and antisocial behavior (Jaffee et al. 2004; Schulz-Heik et al. 2010; Foley et al. 2004).

A third hypothesis suggests that maltreatment actually leads to epigenetic changes that predispose individuals to antisocial or violent behavior. Roth and Champagne (2012) describe emerging evidence suggesting that changes in the activity of genes, established through epigenetic mechanisms such as DNA methylation and histone modifications, may be observed as a consequence of early- and later-life adversity. They draw upon results from animal models of neglect, abuse, chronic stress, and trauma, and suggest that adversity has a lasting epigenetic impact. Furthermore, they suggest that this impact may not be limited to those individuals who have been directly exposed to adversity but may also be evident in subsequent generations – thus there is an "inheritance" of stress susceptibility that may involve epigenetic rather than genetic variation.

Research Findings on the "Cycle of Violence"

A large body of research has documented associations between being the victim of childhood violence and perpetrating adult violence. Numerous studies report that violent adults (e.g., incarcerated for violence, convicted of child abuse, or domestic violence offenders) report high rates of childhood victimization (Askeland et al. 2011; Ball 2009; Byrd and Davis 2009; Carr and Van Deusen 2002; Caykoylu et al. 2011). Findings from a survey by the Bureau of Justice Statistics at the United States Department of Justice reported that between 6.0 and 14.0 % of male offenders and between 23.0 and 37.0 % of female offenders reported histories of physical or sexual abuse before age 18 (Harlow 1999). In the National Family Violence Survey, with a large representative sample in the USA, adults who reported physical abuse in childhood were at increased risk for abusing their own children and partners (Heyman and Slep 2002). Some evidence with college students links abuse from siblings, as well as parents, to dating violence (Simonelli et al. 2002). In addition, the "cycle of violence" has been reported in individuals from various nationalities and cultural backgrounds, including Germany (Pfeiffer and Wetzels 1999), Japan (Dussich and Maekoya 2007; Fujiwara et al. 2010), Pakistan (Fikree et al. 2005), the Philippines (Maxwell and Maxwell 2003), South Africa (Dussich and Maekoya 2007), South Korea (Gover et al. 2011), and Turkey (Caykoylu et al. 2011), and therefore does not appear to be a primarily Western phenomenon.

The theories presented above, and indeed the notion of an intergenerational transmission of violence, assumes a causal relationship, that exposure to violence as a child *causes* individuals to engage in violence when they grow up. However, research in support of the cycle of violence is limited in its ability to draw such a conclusion. Although results from retrospective studies suggest a link between exposure to violence in childhood and violent behavior in adults, these cross-sectional studies cannot determine temporal order, and findings are ambiguous because of potential biases of self-reports. For example, it is possible that these relationships are explained by genetic inheritance and traits shared between children and their parents – parents with violent characteristics may have children with violent predispositions, regardless of the environment to which they are exposed. It is also possible that violent adults merely recall or perceive more violence in their childhoods relative to other individuals. Over 20 years ago, Widom (1989a, b) concluded that confidence in the notion of a "cycle of violence" was limited because of the dearth of strong empirical evidence and methodological problems in existing studies. The most significant of these methodological limitations were the reliance on cross-sectional designs, inconsistent and ambiguous definitions of abuse and neglect, and lack of control or comparison groups of non-abused and non-neglected children. Although these designs continue to predominate in the literature on the cycle of violence (Maas et al. 2008), a number of well-designed prospective studies provide stronger evidence of a causal relationship.

Prospective Studies Linking Child Abuse and Neglect to Violence in Adulthood

Over the past 25 years, a number of studies were designed that overcame many of the methodological limitations of earlier work. Many of these studies, reviewed below, provide empirical support for the notion of a "cycle of violence" or intergenerational transmission of violence. Though these studies vary in geographic region, age of the maltreated children, definitions of child abuse and neglect, and design, the pattern of findings supports the theory of a "cycle of violence", although the mechanisms underlying the "cycle of violence" remain largely unknown.

Five large prospective US-based studies have now shown that court documented child maltreatment is associated with increased risk for violence in adulthood. The first of these studies (Maxfield and Widom 1996; Widom 1989a, b) was conducted in a Midwestern metropolitan area of the USA using court substantiated cases of child maltreatment processed from 1967 to 1971. Children with documented cases of abuse and/or neglect were matched with a control group of children who were of the same age, sex, race, and approximate socioeconomic status. Both groups were followed up approximately 25 years later through examination of official criminal records. These researchers found that being abused and/or neglected as a child increased the likelihood of arrest as a juvenile, by 59.0 %, as an adult, by 28.0 %, and for a violent crime, by 30.0 % (Maxfield and Widom 1996). A replication of the earlier study (English et al. 2001) was conducted using a group of abused and neglected children in the Northwest region of the USA. This study represented a different time period (1980–1985) and included Native Americans, in addition to White and African American individuals. Results for that study indicated that children with substantiated cases of abuse and neglect were 11 times more likely than matched controls to be arrested for a violent crime as a juvenile, 2.7 times more likely as an adult, and 3.1 times more likely to be arrested for a violent crime as either a juvenile or adult.

A third prospective study involved adolescents recruited from public schools in Rochester, New York. As part of the Rochester Youth Development Study (Smith and Thornberry 1995), urban youth were followed from age 14 to adulthood. Their records of child abuse and neglect were obtained from the county Department of Social Services. Compared to those without records of maltreatment, the abused and neglected children were more likely to have arrest records and more arrests at approximately age 17. In a more recent analysis (Smith et al. 2008), reported that maltreated children continued to be at increased risk for arrests in adulthood compared to non-abused or neglected children (38.6 % and 23.7 %, respectively).

A fourth study was conducted in Mecklenburg County, North Carolina (Zingraff et al. 1993). In this study, children with court cases of maltreatment were compared with 2 other samples: a general sample and an impoverished sample recruited through the county Department of Social Services. The results of this study indicated that maltreated children had more arrests at age 15, relative to both comparison samples. The maltreated children also had more arrests for violence than the school sample, but not compared to the impoverished sample. These findings emphasize the need to tease apart how much of the cycle of violence is due to poverty, rather than violence exposure.

In the fifth study (Stouthamer-Loeber et al. 2001), researchers collected official child maltreatment records for a large sample of boys recruited from public schools in Pittsburgh. Using these data, they created matched groups of maltreated and non-maltreated youths and compared their rates of arrest and self-reported delinquency. Consistent with the results of earlier studies conducted in other regions of the USA, youths with official records of maltreatment were more likely than those in the comparison group to have juvenile arrest records and to self-report delinquent and violent behavior.

Results from longitudinal studies with other indicators of childhood maltreatment have also supported a relationship between childhood victimization and antisocial behavior. In one study, a group of children was recruited when they entered kindergarten in Tennessee and Indiana and was followed to age 21 (Dodge et al. 1990). In the context of a detailed initial interview about disciplinary strategies, mothers responded to questions about physical punishment of their children (e.g., had the child ever been hit severely enough by an adult to require medical attention). Based on this information, the researchers classified 69 children (12.0 %) as having experienced early physical abuse. Findings were generally consistent with those of studies based on documented cases of maltreatment. Children who experienced physical abuse by age 5 were more likely than the comparison group to be arrested as juveniles for violent and nonviolent offenses (Lansford et al. 2007). However, those children were no more likely than other children to report delinquent acts.

One notable pattern found in research on the cycle of violence relates to whether the type of childhood victimization exposure leads to differences in adult criminal and violent criminal outcomes. Based on social learning theory, one would expect that criminal outcomes would reflect the type of victimization experienced and that victims of physical abuse would become physically violent. However, the picture appears to be more complex. Consistent with social learning theory, both the Midwest (Maxfield and Widom 1996; Widom 1989a, b) and Northwest (English et al. 2001) studies described above found that physical abuse (that is, being the victim of violence as a child) was associated with high risk of subsequent arrests for violence. Across studies, physical abuse predicted youth violence perpetration (Maas et al. 2008). However, not predicted by social learning theory, the 2 prospective studies with court substantiated cases of child maltreatment revealed that neglected children also had increased rates of arrests for violence compared to non-abused and non-neglected children, and the degree of increased risk was very similar to that of the physically abused children (English et al. 2001; Maxfield and Widom 1996; Widom 1989a, b). Maxfield and Widom (1996) reported that 21.0 % of physically abused children and 20.0 % of neglected children had arrests for violent crime, compared to 14.0 % of matched controls. In the Northwest study, rates of arrests for violent crimes were approximately 30.0 % for physically abused children and 31.0 % for neglected children. These findings call attention to the fact that childhood neglect may also lead to violent behavior and suggest that behavioral modeling alone is not an adequate explanation for the cycle of violence.

Other research has found that exposure to different forms of violence cumulatively increases risk for violent behavior and that physical abuse can compound the effects of other forms of family violence exposure. One review of the literature suggests that exposure to multiple types of maltreatment is the second most consistent predictor of youth violence, after childhood physical victimization alone (Maas et al. 2008). In the US National Family Violence Survey, women reporting both physical victimization and inter-parental violence in childhood were at the greatest risk for reporting violence toward their children and partners in adulthood (Heyman and Slep 2002). In other research with children exposed to parental violence, children who were also physically abused by their parents were most likely to exhibit aggressive behavior problems, relative to children who only witnessed marital violence (O'Keefe 1995). Most recently, evidence from the Rochester Youth Development Study indicated that maltreated children were more likely to demonstrate adult antisocial behavior compared to children exposed to violence between caregivers, suggesting that that these types of family violence are not equivalent in terms of risk for antisocial or violent behavior (Park et al. 2012).

Taken together, the prospective studies reviewed above suggest that childhood victims of violence are at increased risk for violent behavior when they grow up. However, this outcome is by no means inevitable. In fact, most individuals exposed to childhood violence *do not* become violent offenders as adults. For example, Maxfield and Widom (1996) found that only 1 in 5 physically abused children was arrested for violence as adults. Considering that about half as many control children had arrests for violence, the increase in risk is significant, but by no means deterministic. Thus, it is important to understand factors that predict which children exposed to violence are more likely to engage in violence as adults. A particularly promising area of research has uncovered gene x environment interactions that shed light on the variability in consequences of childhood maltreatment.

Behavioral Genetic Research on the "Cycle of Violence"

In their seminal paper in *Science*, Caspi and collaborators (2002) described the evidence that children exposed to maltreatment in childhood are at increased risk for violence, but noted that children's responses to maltreatment varied and that most maltreated children do not become violent offenders (Widom 1989a, b). While acknowledging, that the explanation for this variability in response was essentially unknown, Caspi et al. speculated that a person's vulnerability to negative childhood experiences may be *conditional, depending on genetic susceptibility factors* (p. 851). After reviewing some of the research findings from animal and human studies, Caspi et al. suggested that a functional polymorphism in the promoter region of the monoamine oxidase A (MAOA) gene in conjunction with the environment (childhood adversity) would predict antisocial behavior and conduct disorder.

Since that time, several studies of gene by environment interactions have revealed that MAOA can moderate the impact of childhood maltreatment on antisocial behavior in adulthood and adolescence. Genetic susceptibility factors such as this may help to explain why some maltreated children grow up to become violent adults, but others do not (Caspi et al. 2002). Caspi and collaborators (2002) studied 442 New Zealand Caucasian boys who had been followed from birth to age 26 and found *initial evidence that a functional polymorphism in the MAOA genotype moderates the impact of early childhood maltreatment on the development of antisocial behavior in males* (p. 853). Maltreatment was defined as a composite index including prospective information about maternal rejection, repeated loss of a primary caregiver, harsh discipline, and retrospective self-reports of physical and sexual abuse. Caspi et al. found that high levels of MAOA transcription appeared to protect boys exposed to childhood adversities from developing antisocial or aggressive behaviors. In a later paper, Foley and collaborators (2004) studied a sample of twin Caucasian boys (ages 8–17, mean age = 12) to examine whether childhood adversity and MAOA level interacted to predict risk for conduct disorder. In this study, childhood adversity was defined as exposure to parental neglect (parent self-report) and inter-parental violence and inconsistent discipline (child report). Findings from this study indicated that low MAOA transcription increased risk for conduct disorder only in the presence of childhood adversity.

Replication of these methods with a sample of adults with documented records of childhood abuse and neglect found that high MAOA activity served a protective function for Whites but not Blacks (Widom and Brzustowicz 2006), and suggested that there may be important race/ethnic or cultural differences in this pattern of relationships. One possible interpretation of these results is that the protective genetic predisposition observed in studies of White children (Caspi et al. 2002;

Foley et al. 2004; Widom and Brzustowicz 2006) was not evident and did not counter the effects of childhood maltreatment in abused and neglected Black children.

Summary of Research on the "Cycle of Violence"

Despite differences in geographic region, time period, youths' ages, sex of the children, definition of child maltreatment, and assessment technique, the prospective investigations provide evidence that childhood maltreatment increases later risk for delinquency and violence. Replication of this relationship across a number of well-designed studies supports the generalizability of results and increases confidence in them. Indeed, conclusions from research are strengthened through replication, since the limitations of any one single study make it difficult to draw firm conclusions (Taubes 2007). Although the randomized control trial is considered the gold standard for understanding causal relationships, including health-related risk and preventative factors (Taubes 2007), it is obviously not possible to randomly assign children to maltreatment or control groups. Thus, the fact that these different studies involving comparisons of matched groups of maltreated and non-maltreated children reveal similar findings provides strong evidence of this relationship.

The behavior genetic studies suggest that genetic predisposition may make some individuals more vulnerable to the effects of childhood adversity and may serve as a protective factor for others. These results have been replicated in samples of White males but may not apply to all groups of individuals. In either case, findings make clear that genes do not play a deterministic role (a main effect – in statistical terms) but rather interact with environmental experiences in leading to antisocial behaviour.

Possible Ways to Break the "Cycle of Violence"

Responses by the social service or juvenile justice systems or other agencies in community can buffer or exacerbate the impact of child maltreatment on the developing child. For example, contact with the police and child welfare workers can itself be frightening, confusing, and even traumatic for children and may add to the sense of chaos that maltreated children may already be experiencing. Although often necessary for ensuring a child's safety and wellbeing, removal from the home and caretakers further disrupts processes related to attachment, development of basic security, and reliance on caretakers. Thus, it is important that the professionals who respond to cases of childhood abuse and neglect keep these issues in mind and make efforts to lessen, rather than exacerbate, the impact of maltreatment experiences.

Multisystem therapy (MST) is a well-established, evidence-based treatment for reducing youth violence (Saldana and Henggeler 2006). MST has also been found to mitigate the effects of child abuse and neglect, while keeping children at home with their families (Swenson et al. 2010). MST is an intensive, in-home treatment involving a team of clinicians who meet with the family multiple times a week and are available 24 h a day, with goals of improving caregiver discipline, enhancing family relations, decreasing association with deviant peers and increasing association with prosocial peers, improving school and vocational performance, engaging youth in positive activities, and developing a support network of extended family, neighbors and friends. In a randomized clinical trial with children with substantiated cases of abuse and neglect, those who received MST showed greater reductions in problematic behaviors, fewer out of home placements, and fewer changes in placement, compared to youths receiving outpatient treatment (Swenson et al. 2010). Their families showed greater decreases in neglectful parenting, minor and severe child abuse, and psychological aggression.

Interventions with maltreated children can also be beneficial in reducing future violence. Trauma-focused cognitive behavioral therapy (TF-CBT) is an empirically supported treatment for children who have experienced trauma, including physical abuse and exposure to domestic violence (Cohen and Mannarino 2008). Although play (e.g., drawing, use of dolls or puppets) is incorporated, TF-CBT is a structured program that involves work with both the child and parent and is based on a behavioral model of gradual exposure to the traumatic material. Parents are provided with education about the effects of trauma on children, how to support their children, and how to communicate about the experience. Parenting and behavior management skills are also incorporated, and families often receive education about the criminal justice system and where to apply for victim assistance. TF-CBT has been supported through a series of controlled trials as an effective means of reducing a variety of emotional and behavioral problems in traumatized children (Cohen and Mannarino 2008). It has been widely used across the USA and in a variety of nations and cultures, including Thailand, Sri Lanka, Indonesia, the Netherlands, Germany, and Norway (Cohen and Mannarino 2008), although systematic evidence of its efficacy in these international settings has not yet been published. A similar intervention, Cognitive Behavioral Intervention for Trauma in Schools (CBITS), has been developed and empirically validated for group-based implementation in schools (Stein et al. 2003).

For teens, Wolfe et al. (2003) implemented an intervention to reduce risk of dating violence in 14–16 year-olds with histories of maltreatment. The intervention consisted of education about healthy and abusive relationships, conflict resolution and communication skills, and social action activities. Findings showed that the program was effective in reducing incidents of physical and emotional abuse and symptoms of emotional distress over time.

Parenting interventions with victims of child abuse, when they become parents, offer another opportunity to break the cycle of violence. Bower-Russa (2005) found that attitudes about parenting mediated the link from child abuse history to abusive discipline and suggested *the need for interventions to focus on attitudinal change* *when attempting to reduce risk for perpetration among those with histories of abuse*. Similarly, Dixon et al. (2005) found that a "poor parenting style" mediated the link between history of abuse and abuse of one's own children.

Pregnancy may present a unique opportunity to engage women with histories of child abuse in efforts to prevent abuse of their own children (Pulido 2001). For example, the Nurse Family Partnership Program has received empirical support as an effective intervention for reducing risk of child abuse among low-income, first-time pregnant women (Olds et al. 1997, 1990). This program involves regular home visits from nurses to help women with prenatal care, reduction of substance use, knowledge of child development, and economic sufficiency. In a randomized controlled trial (Kitzman et al. 1997; Olds et al. 1990, 1997), families who received the nurse home visit program had a 48.0 % reduction in state-verified rates of child abuse and neglect, and a 56.0 % relative reduction in emergency department encounters for injuries and ingestions during the children's second year of life. In another trial that followed the mothers and children for 15 years, women who were visited by nurses during pregnancy and infancy were less likely to be identified as perpetrators of child abuse and neglect in verified reports, in comparison to women who were not in the program. Among women who were unmarried and from households of low socioeconomic status at initial enrollment, in contrast to those in the comparison group, nurse-visited women had fewer subsequent births, a longer interval between the birth of the first and a second child, fewer months receiving Aid to Families With Dependent Children, fewer behavioural impairments due to use of alcohol and other drugs, and fewer arrests based on self-reports and arrests disclosed by New York State records. In sum, the nurse home visitation program reduced the number of subsequent pregnancies, the use of welfare, child abuse and neglect, and criminal behaviour on the part of low-income, unmarried mothers for up to 15 years after the birth of the first child. In addition, children in the home visitation program had a 28.0 % relative reduction in all types of health care encounters for injuries and ingestions and a 79.0 % relative reduction in the number of days that children were hospitalized with injuries and ingestions during children's first 2 years (Kitzman et al. 1997).

Illustrative Vignette

Our current system of interventions is often highly reactive, geared toward treatment services, rather than proactive, with prevention efforts aimed at reducing vulnerability and risk. In the case of child victims, the justice system gets the failures of other systems. In many cases, these children do not receive formal intervention until they have manifested a long history of antisocial behavior. However, at numerous points in a child's life and environment, there are opportunities to intervene. This is particularly true for abused and neglected children, especially those whose cases have come to the attention of public officials. We have selected a case to illustrate such opportunities for intervention. This case combines details from several actual cases, all identifying information has been omitted, and changes have been made in the material to avoid any possibility that an individual would be identified.

This is the case of an 8-year-old boy who was brought to the attention of the courts through an abuse petition. We will call him Teddy. His mother was from a low-income family and had a history of physical abuse from her own mother and sexual abuse from a stepfather. She gave birth to Teddy at age 18. Teddy's father was physically abusive toward his mother and had a history of partner violence and involvement with the criminal justice system. Teddy's mother had separated from his father due to his violent behavior and concern for her children (Teddy also had a younger brother). However, court mandated visitation rights based on paternity, required Teddy to spend 2 weekends a month with his father. When he returned from one visit with lacerations from a belt buckle on his neck and back, Teddy's mother learned that he had been suffering from ongoing physical abuse from his father for approximately a year and contacted child social services. Teddy was required by the court to continue to have supervised visitation with his father until his father was sentenced to prison approximately a year later.

Throughout his childhood, Teddy's mother attempted to get help for him through community mental health agencies, where he was given a variety of diagnoses and provided with play therapy. She often left the children to care for themselves, due to her irregular work hours and her mistrust of her own mother and other family members to provide care. Teddy's mother avoided corporal punishment due to her own and Teddy's abuse histories, and therefore did not implement much discipline or structure in the home since she was unsure how to control her children without physical discipline.

Teddy struggled in school and by middle school was failing most of his classes. He dropped out after the tenth grade. He also had behavior problems, which began as mild aggression and disrespect of teachers and grew into more severe problems by middle school – fighting, theft of classmates' cell phones, truancy, staying out past curfew. In the ninth grade, he was charged with assault after shoving a teacher and overturning classroom desks. By this time, his mother had "given up" and they had a distant relationship. He had a number of similar charges throughout his adolescence, and at age 20 fatally stabbed his girlfriend during an altercation.

Based on What We Know, What Programs Might Have Made a Difference?

- *Before his birth*, a home visiting program, such as the Nurse Family Partnership Program described above, might have worked with Teddy's mother to improve her parenting skills, through public health and family support system services. This program could have enhanced her knowledge of child development, effective discipline, and appropriate supervision. Another advantage of the home visitation program is that after having developed a relationship with the parent, home visitors can provide services and models for effective parenting, suggesting alternative ways to handle or manage a situation. Teddy's mother might also have been referred for domestic violence advocacy to help her navigate the legal system and gain protection for herself and her children.

- *When the physical abuse was identified and reported*, Teddy and his mother could have been referred for an empirically-based treatment such as TF-CBT. Through this treatment, problems related to Teddy's abuse experience could have been addressed early on before becoming more serious and entrenched. His mother would have had another opportunity to receive parenting support and legal advocacy.
- *When Teddy was first identified by the juvenile justice system,* his family could have been referred to an intensive, in-home program, such as MST. This program would have intervened across all levels that in adolescence were impacting his behavior, including family functioning, academics, and peer relationships. A team of therapists would have worked with Teddy and his mother, his teachers and school staff, and his probation officer. It would have provided Teddy's mother with yet another opportunity for parenting support. In addition, Teddy might have benefited from a program, such as the one developed by Wolfe and collaborators (2003), which specifically focused on prevention of interpersonal violence.

Clearly, a number of empirically supported interventions at several points in Teddy's development could have prevented the outcome of this case. The interventions described above have now been supported by multiple large-scale trials and are being implemented in many clinical settings across the county. However, the children at greatest need often do not have access to these kinds of rigorous, evidence based programs. Prevention programs that target the individual child alone are clearly not adequate. Early intervention programs that appear to be most effective have adopted a multidimensional approach with a variety of components, including family health care and parenting programs.

Conclusion

In the preface to a monograph entitled *Breaking the Cycle of Violence: Recommendations to Improve the Criminal Justice Response to Child Victims and Witnesses*, then the US Deputy Attorney General Eric H. Holder, Jr., and Kathryn M. Turman, Acting Director, Office of Victims of Crime wrote:

> Some of the most important cases investigators, prosecutors, and judges will handle during the course of their careers are those involving child victims and witnesses...What happens to those children has a significant impact both on individual children and on the overall safety and well-being of communities.... Witnessing family violence appears to have both

> short-and long-term effects on children. Intervening in the lives of victimized children before negative patterns of behaviour, low self-esteem, and damaged character are established may be the only real opportunity to prevent future violence in our streets and in our homes.

Childhood abuse and neglect and their consequences remain compelling and perplexing social problems confronting society, involving millions of children, resulting in injury and death as well as untold emotional scars, and a cascade of consequences across multiple domains of functioning (Widom 2000). The seriousness of childhood victimization and its demonstrated relationship to delinquency, crime and violent criminal behaviour, justifies the high level of current concern by the public and professionals. Although researchers have made progress in understanding the range of short and long-term consequences of child maltreatment, most of the research in this area is based on cross-sectional designs or studies that rely on retrospective reports of childhood victimization. Heavy reliance on these designs makes it scientifically difficult to draw firm policy conclusions.

As the knowledge base in the field of childhood victimization has progressed, theoretical models have become richer and more complex (Belsky 1980; Cicchetti and Toth 1998; Garbarino 1977; Widom 2000). Future research needs to adopt ecological models that consider the individual in the context of the broader social environment in which he or she functions. Such a model would recognize that behaviour is complex and development is multiply determined by characteristics of the individual, parent and family, and neighbourhood and/or community. Recent research is beginning to show the role of neighbourhood and community in determining risk for crime and violence (Schuck and Widom 2005; Nikulina et al. 2010). This work highlights the need for more complex approaches to examining potential mechanisms in the intergenerational transmission of violence.

Finally, prevention efforts targeted at victims of child abuse and neglect require solid empirical knowledge of the impact of these childhood experiences on a variety of outcomes to develop effective and targeted interventions for those most at-risk for chronic offending. Law enforcement officers, teachers, social workers, health care workers, mental health practitioners, and other professionals serving youth play a crucial role in recognizing the signs of abuse and neglect and engaging in serious efforts to intervene as early as possible.

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Chapter 3
Violence Exposure and Mental Health States

Jutta Lindert

Introduction

The psychological impact of violence has received a great deal of attention, since the pervasive and multifarious nature of violence influences several different domains of mental health. The impact and consequences of violence on mental health are pervasive, with features of feelings of loss in the case of depression and features of assumptions that others and the outside world are dangerous and threatening in the case of anxiety. Depressive disorders tend to strike patients after an experience. By contrast, anxiety disorders may be caused by a wide variety of factors and be recognized by different symptoms, actual or anticipated. One main distinction between depression and anxiety in respect to violence may therefore be chronological; the event associated is imagined for the future or to have occurred in the past. In this chapter I review results from research on violence and depression and anxiety disorders, including PTSD.

Exposure to Violence

Violence has been recognized as a human rights problem for a long time, but the recognition of violence as a public health problem is more recent. In 1996, the 49th World Health Assembly adopted Resolution WHA49.25, declaring violence a major and growing public health problem. In 2002, The World Health Organization (WHO) defined violence as *the intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community,*

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which either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development, or deprivation (Krug 2002), This definition of the WHO is important for public health and for the recognition of potential consequences of violence exposure. It is different from a legal definition inasmuch as this recognizes the intentionality of the violent act to harm–irrespective of the outcome it produces. The intention to harm is not necessarily associated with immediate obvious harm or death, but it includes the recognition of a potential impact that might become apparent years or even decades after the exposure to violence. Within this definition, health consequences of violence are not necessarily related to an immediate impact, but also potentially to a long term impact. Following this WHO definition of violence, various forms of exposure to violence are investigated in this chapter, such as politically motivated conflicts (e.g. wars, genocide); ecologically-based violence (e.g. exposure to heavy metals); the intentional use of physical force or power; group violence (e.g. community violence, family violence); and self-directed violence (e.g. suicide). Inclusion of the variety of forms of violence is particularly timely, as this knowledge may inform public health prevention and intervention strategies for individuals and population groups. Types of violence are physical violence, sexual violence and psychological violence.

This awareness is reflected by theoretical and empirical studies from an annual publication rate of under 10 in 1994 (year of the introduction of the previous to the last revision of the Diagnostic and Statistical Manual of Mental Disorders (*DSM*-IV)) to over 2,000 publications in 2012 (ISI Web of Science results assessed in January 2013). In this chapter I aim to review the knowledge resulting from these studies to better understand the pervasive impact of violence on psychopathology.

I argue that a long-term perspective is required in order to fully understand the impact of violence on mental health, and, simultaneously, to minimize the risk of underestimating its impact. This problem is known as the “length time bias” in cancer epidemiology. In this chapter, I will review currently existing knowledge focusing on the most widespread mental disorders such as depression and anxiety including post-traumatic stress disorder.

Critics on Research on Violence and Mental Health

Some researchers have argued that psychopathological symptoms are not related to violence exposure. This is not supported for at least 4 reasons. Early critiques argued that violence might be associated with psychopathological symptoms only in vulnerable individuals. A second level of critique has been based on the argument that reactions to violence vary so much across time, place and subgroups that they are not amenable to standardization and therefore standardized constructs of psychopathology would obscure as much as clarify the psychopathological impact of violence (De Jong 2003). A third level of critique insists on culturally-bound symptoms in the aftermath of violence (Miller et al. 2009). A fourth level of critique argues that investigating the health impact of violence means defining human suffering as solely a physical, medical problem (Kleinman and Kleinman 1991; Kienzler 2008). However, recent studies contradict these critics by suggesting that psychopathology in nearly a third of the cases is attributable to individual's exposure to violence. (Kessler et al. 2010; Moffitt et al. 2007).

In January 2012, building on this knowledge, the American Academy of Paediatrics called on paediatricians to include knowledge from the basic health sciences, molecular biology, genomics, immunology, and neurosciences to inform strategies for children exposed to abuse early in life in their statement "Early Childhood Adversity, Toxic Stress, and the Role of the Paediatrician: Translating Developmental Science Into Lifelong Health" (Garner and Shonkoff 2012). This call aims at setting up a biologically-informed violence model including the recognition of a potentially neurotoxic environment resulting from violence in the form of social interactions and in the form of physical exposures.

Violence and Depression

Definition of Depression

Depression includes as a term depressive symptoms and depressive disorders. Depressive disorders are emotional dysregulations with feelings of sadness, hopelessness and shortened future which affect more than 350 million people worldwide (Kessler 2012). Depression in the Diagnostic and Statistical Manual IV from 1994, (p. 356) is specified in 7 types of disorders: major depressive disorder (MDD); dysthymic disorder; bipolar disorder; substance-induced disorder; mood disorder due to a general medical condition; adjustment disorder with depressed mood; and other psychiatric conditions in which depression can be a primary symptom. The criteria for depression includes depressed mood and/or loss of interest or pleasure in life activities for at least 2 weeks and at least 5 of the following symptoms that cause clinically significant impairment in social life, work, or other important areas of functioning almost every day. The symptoms of depression are depressed mood most of the day; diminished interest or pleasure in all or most activities; significant unintentional weight loss or gain; insomnia or sleeping too much; agitation or psychomotor retardation noticed by others; fatigue or loss of energy; feelings of worthlessness or excessive guilt; diminished ability to think or concentrate; and recurrent thoughts of death.

A consensus statement on depression underlines the high prevalence rates of depression across all cultures and nations, while recognizing that cultural differences exist in symptom presentation and prevalence estimates (Ballenger et al. 2001).

Exposure to Violence and Depression Among Children

Exposure to violence among young children is mainly caregiver violence (Kessler 2012; Lewis and Olsson 2011). Violence in all forms (e.g. domestic violence, community violence, and/or political) is largely associated with depression (Afifi et al. 2006; Molnar et al. 2001).

Violence Exposure and Depression Disorder Among Adolescents

Violence is a main risk factor for depression in adolescence. Using a US community-based sample of 2,345 adolescents (mean age 14 years at the time of violence exposure) in the home, schools and/or neighbourhood, psychiatric outcomes were assessed after 2 years using the Diagnostic Interview Schedule for Children. Authors categorize adolescents into 4 distinct groups: low violence, home violence, neighbourhood violence/traumatic news, and multiple settings of violence. Relative to adolescents in the low violence class, risk of MDD for adolescents in the home violence, neighbourhood violence, and multiple settings groups was 1.62, 1.47, and 2.44 times higher, respectively (p values <0.05) (Slopen et al. 2012). A second US study based on a sample of low-income African-American youth victims of violence reported higher levels of depressive symptoms than did non-victims (Fitzpatrick 1993). Another study from South Africa reported a cumulative trauma exposure effect on depression controlling for sex, with an increase in the number of violent events linearly associated with an increase in symptoms depression ($F((4,912)) = 2.77$, $P < .005$). Further knowledge on depression and violence among adolescents is built on research on adolescents from a variety of countries such as Brazil (Avanci et al. 2009) and Israel, documenting associations between exposure to community violence and rocket attacks (Henrich and Shahar 2008). However, the effects were small longitudinally (Henrich and Shahar 2013).

Comparing time of exposure and relative risk of having severe depressive symptoms studies suggest a higher risk for those abused before the age of 12 than for those abused after the age of 12 (Schoedl et al. 2010).

Violence Exposure and Depression Among Adults

An important finding of research studies on the relationship between exposure to violence and depression in adult life suggest that domestic violence, community violence and terrorism contribute to the burden of depression in adult life.

A meta-analysis of 17 studies on domestic violence (excluding emotional violence) and depression from 20 databases including participants from Australia, the USA, India, Nicaragua, South Africa and Sweden provides evidence of an association between violence exposure and incident depressive symptoms, with 12 of the reviewed 13 studies showing a positive association between violence exposure in adult relationships and depression (Devries et al. 2013). Studies on community violence in high risk communities suggest both a high exposure rates to violent events and a high prevalence rate of depressive depression, especially among women (Ribeiro et al. 2013). A recent meta-analysis provides further evidence that domestic violence is associated with depression (Devries et al. 2013). It seems that intimate partner violence (psychological, physical, and sexual) is the principal gender-related contributor to depression among women.

Depression is one of the most common adult outcomes of exposure to childhood sexual abuse. In a community-based survey of 564 young adults aged 18–22 years, 62.0 % of the sexually abused women met full criteria for depressive disorder (Teicher 2010; Kessler 2012a). Childhood abuse may influence severity, age and course of onset of depression (Lenze et al. 2008; Brown et al. 2009a, b). A study from Israel based on data from the World Mental Health Survey ($N = 4859$) found that childhood abuse was associated with lifetime depressive disorders ($OR = 1.7$).

Depression in adults is associated not only with domestic violence and child abuse but as well with exposure to war and genocide. Results from the National Comorbidity Survey (NCS) indicated that after adjusting for potential confounding influences, individuals who experienced combat were 2.12 times more likely to develop major depressive disorder. The risk of developing depression among Korean War veterans had been reported to be 5.45 times higher than in a comparison group. The prevalence of having major depression among veterans deployed during the Gulf War was 2 times greater than among veterans who were not deployed. Among Operation Iraqi Freedom (OIF) veterans the prevalence of depression was reported to be up to 17.4 %, with women at a higher risk than men. Risk for depression was associated with a lower military rank and with more combat exposure. In survivors of the 1994 genocide from Rwanda, almost 20 years after exposure, survivors reported more depressive symptoms compared to non survivors ($M = 20.7$ ($SD = 7.8$) versus $M = 19.0$ ($SD = 6.4$), $p < 0.05$) (Rieder and Elbert 2013).

Violence Exposure and Depression Among Older Individuals

Estimates of the prevalence of depressive symptoms among community dwelling people over 55 years vary markedly according to the population methods used (Saks 2002). Older individuals can be exposed to domestic violence, caregiver violence, as well as to the violence of neighbours, relatives, the larger community and the violence of war. With a global increase in life expectancy, couples—bound together under their relationship—that age together under conditions of domestic violence, may frequently suffer from depression over their entire lives.

Violence Exposure and Anxiety

Anxiety

Anxiety is an emotional reaction which may be beneficial and adaptive in many situations; however anxiety can also become maladaptive and excessive and may negatively affect people in their day-to-day lives (Baxter et al. 2013; Carter et al. 2012). Anxiety may become pathological in cases where it is a persisting emotion even after the threat is over (Fergusson et al. 2008; Lansford and Deater-Deckard 2012). Pathological anxiety is characterized by persistent, excessive, and unrealistic worry about everyday things and mistrust. People with this disorder often expect the worst from the future and from other persons, even if there is apparently no reason for concern. Twelve separate anxiety disorders are defined in the *DSM*-IV as affecting adults. These are: Panic disorder with or without agoraphobia (main characteristic: occurrence of a panic attack linked with the fear of another attack); Phobias (main characteristic: intense and irrational fear of a specific object or situation that is so intense it can cause the individual to be compelled to go to great lengths to avoid it); Obsessive Compulsive Disorder (main characteristic: unwanted, intrusive, persistent or repetitive behaviors; Stress disorders (PTSD) and Acute Stress Disorders; Anxiety Disorders due to known physical cause; Anxiety Disorder not otherwise specified and Generalized Anxiety Disorder (GAD). GAD is the most prevalent disorder associated with violence (Lindal and Stefansson1993; Somers et al. 2006).

Anxiety disorders are associated with difficulties in concentrating, with irritability, muscle tension and sleep disturbances such as difficulty in falling or staying asleep as well as with restless and unsatisfying sleep. These symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning in daily life (Lepine 2002; Wittchen 2002; Kessler 2012).

Exposure to Violence and Anxiety Among Children

Exposure to violence among young children is mainly caregiver violence (Kessler 2012; Lewis and Olsson 2011). Anxiety may affect these children, and high levels of anxiety are likely to impact negatively on children's education, physical and psychological development, professional career and relationships (Kessler et al. 2010). In a study of anxiety disorders among children in China, India, Italy, Kenya, the Philippines, and Thailand, it was found that more frequent physical punishment was related to more anxiety (Gershoff et al. 2010). In a study from Yemen, with a high rate of harsh punishment of children, was related to children's poor school performance and behavioural and emotional problems (Alyahri and Goodman 2008). In a recent study in N = 3, 744 adults (above 15 years) in Brazil, violence exposure was associated with major generalized anxiety disorder including children (OR = 1.71, 95.0 % CI = 1.45–2.78) (Ribeiro et al. 2013). According to this study from Brazil, 20.0 % of poor urban children have been exposed in the past 12 months to caregiver violence consisting of severe physical punishment by one of the parents. Another study from Brazil reported that 63.9 % of boys and 53.2 % of 6–13 year old girls were exposed to severe violence perpetrated by their mothers. Additionally, 42.4 % of the boys and 44.0 % of the girls were exposed to violence at school and 31.5 % of boys and 21.6 % of girls to violence in the community. It appears that the odds ratios for anxiety disorders were at least twice as high among children who had been exposed to caregiver violence than those who had not in most studies.

Studies estimate that physical violence alone affects between 10.0 and 25.0 % of children (Dutton et al. 2006). A representative study from the USA suggests that 3 in 5 children had at least some exposure to violence (including indirect exposure such as seeing an assault in the home, and psychological or emotional violence) (Finkelhor et al. 2005). It is more probable for younger children to be exposed to caregiver violence, especially to physical violence (e.g., slapping, beating with an object) and to psychological violence (e.g., yelling, name calling, threatening). Violence exposure in childhood contributes to anxiety later life e.g. to anxiety among adolescents (Afifi et al. 2006, 2009; Lewis et al. 2007).

As children grow older, they may be exposed to further types of violence, such as peer violence, witnessing violence, community violence, terror and wars. Witnessing violence was concurrently associated with anxiety among girls (Boyd et al. 2008). Especially, children from low and middle-income countries (LMICs) can be exposed to multiple violent adversities, placing these children at increased potential risk of psychological problems (Cortina 2013).

Exposure to Violence and Anxiety Among Adolescents

Exposure to violence among adolescents is mainly relational victimization by caregivers, by peers (e.g. bullying, physical fighting, and weapon use, sexual and physical assault) and community violence (CV) (Cisler et al. 2012; Turner et al. 2010). In the "US National Survey of Adolescents", 23.0 % of participants reported being exposed to CV (Haj-Yahia et al. 2013).

In a recent study it was suggested that more than half of the adolescents in the USA experienced some kind of physical violence in the past year (Finkelhor et al. 2005). In 2 cohorts of African American adolescents (N = 326; 54.0 % female; mean age = 12.1; SD = 1.6) and their maternal caregivers, significant direct effects from emotional victimization but not from physical victimization were found (Taylor et al. 2013).

A study of adolescents from Belgium revealed that at least 54.0 % of adolescents had witnessed violence and at least 38.0 % had experienced such violence during adolescence (Vermeiren et al. 2002). A recent study conducted among Arab youth from Israel revealed that nearly all of the participants (99.8 %) reported that they had witnessed CV in their lifetime, and 64.0 % had experienced personal CV during their lives (Haj-Yahia 2013). As regards socioeconomic groups, youth violence has been found to be greater among lower socioeconomic groups (Selner-O'Hagan et al. 1998).

Violence Exposure and Anxiety Disorders Among Adults

Exposure to violence among adults is mainly domestic violence, community violence and political violence (Krug 2002).

In 1,209 nonclinical community dwelling adults (18–70 years; 45.0 % male), early life exposure to interpersonal violence differentially predicted higher self-reported anxiety symptom scores in both males and females. Adult trauma exposure did not significantly predict these symptom scores (Chu et al. 2013). Data from the 2005 Canadian Community Health Survey (12,481 respondents from the Canadian provinces of Manitoba and Saskatchewan) suggest a significant association between violence and anxiety disorders when controlling for demographic factors, family background, current SES and stressors (OR = 1.61; 95.0 % CI = 1.25–2.08).

Violence Exposure and Anxiety Disorders Among Older Individuals

Exposure to violence among older individuals is a recent research topic. Although violence against older persons is often considered in the context of care and dependency, several reviews have shown that violence in old age is mainly family violence including partner violence (Lindert et al. 2013). Community violence against older individuals seems to be less prevalent as older individuals tend to spend more time at home than adults.

Acierno conducted a survey of nearly 6,000 adults in the USA and found that 10.0 % of older individuals reported some form of violence. A study from 7 countries in Europe found prevalence rates between 0.0 % (Italy) and almost 40.0 % (Germany, Sweden, and Lithuania) (Lindert et al. 2013). A recent meta-analysis from Cooper, however, noted large discrepancies in prevalence rates across studies, mainly because of methodological reasons, such as instruments and time frame of the study under review (Cooper et al. 2008).

In a recent study on older individuals (50+) childhood sexual abuse was associated with increased levels of anxiety in old age adjusted for socio-demographic characteristics (AOR: 2.60; 95.0 % CI = 1.07–6.35) (Chou 2012). Violence exposure against older adults correlates with anxiety disorders in women across different countries and cultures. The odds ratios of anxiety symptoms were in Chile 3.2 times higher among older women who were exposed to psychological violence, and 9.7 times among older women who were victims of sexual violence when compared to older women who were not exposed.

Violence Exposure and PTSD

Definition of PTSD

PTSD deviates from other mental disorders in that it is defined in relation to a potentially etiologic event, the traumatic stressor e.g. violence. Herewith, PTSD is a "conditional" disorder. Even if controversies surround the condition criterion (criterion A) for the diagnosis of PTSD, violence is without doubt a type of event which fulfils criterion A. The definitions of PTSD in *DSM*-IV-TR specifies that exposure to a qualifying event entails *direct personal experience of an event that involves actual or threatened death or serious injury or threat to one's physical integrity;* The concept of the A criterion of PTSD has evolved since its introduction into the *DSM* in 1980. Since then, the underlying feature of PTSD is that symptoms of psychopathology are normal reactions to events such as human-made or natural disasters, serious accidents, or sudden death of a loved one or exposure to violence (assaults, war, genocide, terrorist attacks, etc.). The specific symptoms as reaction to serious life events have been specified since 1980 and in the *DSM*-V revision symptoms were reorganized.

In *DSM* V—building on *DSM* IV, PTSD is distinguished into the following clusters: cluster A includes the event like in the previous versions; cluster B includes reexperiencing; cluster C includes avoidance; cluster D includes negative alterations in cognitions and mood; and cluster E includes alterations in arousal and reactivity. All the new and revised symptoms in the *DSM* V for PTSD fall within the proposed criteria D and E. The new symptoms within criterion D include persistent distorted blame of self or others and pervasive negative emotional state (including fear, horror, anger, guilt, or shame). These symptoms are included based on the rationale that they are common in patients with PTSD, as well as in patients with mood and anxiety disorders.

It has been argued that PTSD is associated with increases in risk-taking behaviour, including risky sexual and driving behaviour, which has been investigated among adolescents. Finally, the *DSM*-IV D2 criterion of irritability or outbursts of anger has been revised to include irritable, angry, or aggressive behaviour and is now included under E1. The rationale is that, in addition to irritability, PTSD predicts aggressive behaviour and violence, particularly among adolescents and veterans from some wars, but not from all wars (Friedman et al. 2011; Hinton and Lewis-Fernandez 2011; Scheeringa et al. 2011).

PTSD symptoms are associated with violence exposure in a broad range of studies (Silove et al. 2008; Tang and Fox 2001; Crescenzi et al. 2002; Chapman et al. 2012). The severity of the exposure to violence is directly related to PTSD symptom and severity (Seal et al. 2009; Goldberg et al. 1990; Green et al. 1990). This association has been found to be significant up to 50 years after war exposure among veterans (Roy-Byrne et al. 2004; Schlenger et al. 2007).

Violence Exposure and PTSD in Children

Although the condition is well established in adults, there is little research into PTSD in children and adolescents. The available research shows that children experience similar as well as different symptoms from adults. Research suggests the following symptoms of PTSD among 3 age groups of children: from birth to age 6, may get upset if their parents are not close by; have trouble sleeping; or have trouble with developmental tasks (e.g. toilet training, going to the bathroom); or they may demonstrate regressive behaviours such as enuresis. Children age 7–11 may act out the trauma through play, drawings, or stories. Children aged 12–18 years increasingly show symptoms more similar to adults with PTSD (Chowdhury and Pancha 2011; Cohen and Scheeringa 2009).

Research on violence exposure among children and PTSD has focused on sexual abuse and PTSD but increasing evidence suggests an exposure to multiple violent events (Brown et al. 2009a, b). In a study assessing multiple exposures to violence in children from birth to age 7, nearly one quarter of the study found that the children experienced PTSD (Crusto et al. 2010). Moreover, this study found a direct relationship between the number and the types of violent events and PTSD symptoms. In another study on preschool-children who were exposed to on-going missile attacks, 20.0 % of the children screened positive for PTSD (Kaufman-Shriqui et al. 2013). This research suggests that the impact of violence on psychopathology has an additive effect and the number of events is associated with an increasing risk for psychopathology.

Violence Exposure Among Adolescents and PTSD

PTSD is one of the most commonly reported mental ill health outcomes following violence exposure in adolescence, associated with family violence and community violence.

As regards family violence, in a study of 2,345 adolescents from a community-based sample in the USA (mean age of violence exposure 14 years) stress disorders outcomes were assessed 2 years later using the "Diagnostic Interview Schedule for Children". The study quoted above (Fitzpatrick 1993), studying the relationship between chronic exposure to community violence and PTSD symptoms in a non-random sample of 221 low-income, 7–18 year-old African-American youth, found moderately high symptomatology, with 27.1 % meeting all 3 *DSM* Ill- R diagnostic criteria for PTSD.

Further violence exposure is associated with being a child soldier. Most of these child soldiers are between the ages of 15 and 18 years. Studies report point estimates for PTSD among adolescents from 27.0 to 97.0 % (Derluyn et al. 2004; Kohrt et al. 2008; Okello et al. 2007).

Violence Exposure Among Adults and PTSD

Among adults, PTSD is one of the most reported conditions following violence exposure in the family (e.g. domestic violence), in the community, resulting from war (as civilians or as soldier's deployment), political violence, genocide and distal violence as child abuse (Koenen et al. 2007) or as a result of several exposures.

A considerable body of research has demonstrated that women who are exposed to intimate partner violence by their male romantic partners are at substantially elevated risk for the development of PTSD (Dejonghe et al. 2008; Devries et al. 2013; Becker et al. 2010; Kessler 2012). The exposure rates differ between Whites, Blacks, Hispanics and Asians in the US general population. Data from structured diagnostic interviews with 34,653 adult respondents in the 2004–2005 wave of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) suggest that exposure and lifetime prevalence of PTSD is highest among African-Americans (8.7 %), intermediate among Hispanics and Whites (7.0 and 7.4 %) and lowest among Asians (4.0 %). In this study, African-Americans and Hispanics had higher risk of child maltreatment (Roberts et al. 2011). In a further study among economically disadvantaged urban-dwelling African-Americans from a Detroit household probability sample, lifetime sexual violence prevalence was 26.3 % for women and 5.1 % for men (Walsh et al. 2013).

There is a lack of data from studies focusing specifically on the victims exposed to physical violence by a perpetrator other than a family member. However, recent data from a longitudinal study at 4 points of time (T1 as soon as possible after the exposure, T2 3 months later, T3 after 1 year and T4 after 8 years) found that probable PTSD cases were 33.6 % at T1, 30.9 at T2, 30.1 % at T3 and 19.1 % at T4 (Johansen et al. 2013).

The short term impact of army deployment on PTSD rates is well known for decades. Most research on war, deployment and PTSD in adult life dates back to the time after the Vietnam conflict. Studies of recent conflicts suggest that combat-related PTSD afflicts between 4.0 and 17.0 % of US Iraq War veterans, and 3.0–6.0 % of returning UK Iraq War veterans. Current military personnel and veterans are at risk of developing serious mental health problems, including chronic PTSD. Deployment itself to Iraq or Afghanistan was unrelated to PTSD although holding a combat role was associated with PTSD if deployed to Iraq (Osorio et al. 2012; Jones et al. 2012). The long-term health consequences of war service remain unclear There are data from WWII, despite burgeoning scientific interest. A longitudinal cohort study of a random sample of Australian Vietnam 36 years after the war revealed that veterans' general health was poorer and PTSD rates were higher. Systematic reviews investigating the rates of PTSD in deployed veterans found increased ORs of PTSD among deployed veterans compared to non-deployed veterans (Wright et al. 2013; Ikin et al. 2007). The range of PTSD differed between wars, from OR = 1.75 to 37.19 for veterans of the 1990–1991 Gulf War (Stimpson et al. 2003; Black et al. 2004); and from OR = 1.33 to 1.70 for soldiers from the Iraq war (Magruder and Shaw 2008; Al-Hamzawi et al. 2012) compared to those without exposure to war.

In post-conflict settings, studies report a high prevalence of PTSD (Silove et al. 2008; Mollica et al. 2004, 2013). As regards war and PTSD among civilians, a survey from 2008 indicates that 1 in 5 men and 1 in 3 women met diagnostic criteria for PTSD after the genocide in Rwanda. In a further study from Rwanda, as much as 37.0 % of populations exposed to armed conflicts (De Jong et al. 2003) showed PTSD symptoms. These findings were replicated among men and women from Rwanda (Munyandamutsa et al. 2012; Pham et al. 2004; Rieder and Elbert 2013), Cambodia (Sonis et al. 2009) and Nepal (Tol et al. 2010).

Regarding refugees, the impact of exposure to violent events and PTSD is suggested by several studies (Morina et al. 2013). On average, after 25 years post-exposure in Cambodia, the Khmer civilian population that experienced the Pol Pot genocide continues to suffer psychiatric morbidity and poor health (Mollica et al. 2013).

The most comprehensive study on genocide survivors is a set of meta-analyses (71 samples, 12,746 participants) suggesting that Holocaust survivors show more post-traumatic symptoms than individuals without Holocaust experience ($d = 0.72$, 95.0 % $CI = 0.46, 0.98$) (Barel et al. 2010).

In regards to the exposure to multiple violent events, a significant dose-response relationship was found, e.g. women who experienced both child abuse and rape were 17 times more likely to have probable PTSD compared to women who experienced one type of violence (Schumm et al. 2006). Victims with histories of repeated episodes of violence tend to present further symptoms which are not outlined in the *DSM*-IV and there is discussion about the need for further violence related diagnoses such as "Complex Post-traumatic Stress Disorder" (CPTSD) (Mcdonnell et al. 2013) or "Disorders of Extreme Stress not otherwise classified" (DESNOS) (De Jong et al. 2005; Van Der Kolk et al. 2005). DESNOS was conceptualized as encompassing 3 disorders: dissociative identity disorder, borderline personality disorder, and somatization disorder. Herewith, DESNOS is characterized by alterations in 6 areas of functioning: regulation of affect and impulses; attention or consciousness; self-perception; relations with others; somatizations; and changes in systems of meaning. This feature is supported by recent studies on adult's war victims from Kosovo (Morina and Ford 2008).

In adults, about twice as many women as men develop PTSD, even though men as a group are exposed to more traumatic events. The differences might be associated with the type of events, as women are more often exposed to personal violence (e.g. child abuse, intimate partner violence) and men more often to collective violence (war, community violence).

Violence Exposure Among Older Individuals and PTSD

PTSD in old age is associated with exposure to violence at early ages and in old age (Yehuda et al. 2007; Sagi-Schwartz et al. 2003).

Decades after World War II (WW II), prevalence rates of current PTSD among older Holocaust survivors varies from 39.0 to 55.0 %, and confirms that the negative effects of the exposure to genocide during childhood may last for decades (Favaro et al. 2006; Joffe et al. 2003; Yehuda et al. 1994). However, those who were younger than 5 years at exposure presented with less PTSD symptom severity than those who were older at exposure (Barenbaum et al. 2004). As regards to exposure, a significant difference between being directly exposed to violence in concentration camps and those in hiding was revealed (Yehuda et al. 1997). These studies results refer to the oldest old, not to the young old, which might explain the lack of association of early exposure and late life PTSD found in earlier studies. In a representative study ($N = 2426$) with a broad age range of respondents (14–93 years), prevalence rates of traumatic life events, PTSD, and partial PTSD were estimated. In the old group there were no gender differences in levels of PTSD and partial PTSD but age-group differences did appear: among persons older than 60, the prevalence rates of PTSD was 3.4 %, whereas the prevalence was estimated at 1.3 % among persons aged 14–29 years and 1.9 % among those aged 30–59 years. Partial PTSD exhibited the same age distribution, with 3.8 % in the elderly, 2.4 % in the middle-aged, and 1.3 % in young adults (Glaesmer et al. 2010). Research conducted with World War II (Bramsen and Van Der Ploeg 1999) and Holocaust survivors (Yehuda et al. 2009) indicate that symptoms of PTSD continue or that the onset of PTSD is delayed (Andrews et al. 2007). These late effects have been reported in 17 studies from several countries with large Holocaust survivor populations including Australia, the USA, Canada and Israel (Joffe et al. 2003; Clarke et al. 2004; Grossman et al. 2004). The life time prevalence rate among the Australian Holocaust survivor population is estimated at 39.0 % (Joffe et al. 2003).

Summary of Epidemiological Findings

Experiencing violence is associated with an increased risk of depression and anxiety disorders, including PTSD. I showed in this review that the impact of exposure to violence can reverberate throughout the lifetime and that the severity may change over time. Accordingly, the impact of violence can best be understood from a developmental perspective.

Violence exposure might interfere with development and with developmental tasks such as developing attachment and trust to caregivers in childhood; of performing well in school in adolescence; of family relationship formation and taking responsibilities in adulthood and of life review in late life. The failure to complete developmental tasks may exacerbate symptoms of depression and anxiety at any point of time.

Several hypotheses explain the association between violence and depression and anxiety (e.g. vulnerability hypotheses, biological hypotheses, psychological hypotheses) and in combination.

Violence Exposure and Psychopathology: Vulnerability Explanations

Some researchers discussed the association between violence exposure and depression and anxiety suggesting that pre-existing psychiatric disorders may increase the risk of disorders following exposure to violence. Results from the Vietnam Era Twin Registry (VETR) study consisting of 8,169 male-male twin pairs in which both siblings served in military during the Vietnam era (May 1965 to August 1975), suggested that the association between depression and anxiety and violence in part reflects a familial vulnerability mediated by genetic factors.

One difficulty faced by investigators is that psychopathological changes may remain undetected for years.

Exposure to Violence and Psychopathology: Explanations from Neurosciences

Many individuals exposed to violence do not show symptoms on the phenotype level immediately after exposure; however biological effects might be found on the brain level.

Violence at key periods of the (synaptic) organization of the brain modifies the trajectories of these connections, leading to an incubation period, such that the effects of violence are not apparent at the time of adversity, but do emerge later. This can occur when the synaptic organization has been completed or when the synaptic organization is modifying because of age or environment-related changes. This suggestion is supported by studies showing protracted effects of early-life violence exposure that emerge at later life stages. It is thus conceivable that exposure to early adversity during a window of vulnerability sets into motion a series of events which lead to a heterotypic reorganization of emotions and behaviour. Such a heterotypic reorganization may become apparent as psychopathological symptoms at any time in life.

Although PTSD and traumatic brain injury (TBI) are categorized as separate and discrete disorders, the boundary between them is sometimes indistinct. Their separation is based on the assumption that PTSD results primarily from psychological stress, while TBI is the consequence of an identifiable injury to the brain. This distinction is based on an antiquated polarity between mind and brain, and the separation of the 2 disorders often becomes arbitrary in day-to-day psychiatric practice and research (Andreasen 2011; Sherin and Nemeroff 2011).

Exposure to Violence and Psychopathology: Psychological Explanations

Violence may be related to liability to internalizing and/or externalizing psychopathology, depending on age of exposure, gender, cultural context and type of exposure. The internalizing dimension indicates liability to experience mood and anxiety disorders such as major depression, generalized anxiety disorder, panic disorder and social phobia. The externalizing dimension indicates liability to experience, substance disorder, conduct disorder, and antisocial personality disorder. The expression of the liability in determining symptoms may be associated with the context in which it occurs (Hinton and Lewis-Fernandez 2011).

Psychopathology associated with exposure to violence includes a variety of internalizing factors such as anxiety and depression and/or externalizing symptoms and disorders such as behaviour disorders. These symptoms may be found as an immediate reaction adaptive for the individual in the situation of exposure to violence. Adaptive reactions may occur in dreadful situations in which there are no way out, which results in a variety of psychopathological symptoms and/or mental disorders. Behaviour reactions may search for possible ways out of hopeless looking situations. Both internalizing and externalizing reactions are associated with the subjective feelings of power of the individual. In cases when the dreadful situation has passed, such internalizing or externalizing reactions may remain and become non-adaptive to the changes, to now no-longer dreadful environment. Both biological and neurobiological changes can be associated with adaptations to dreadful situations although such changes may not become apparent immediately after the exposure.

Issues for Further Research on the Effects of Violence

This chapter has focused primarily on the effects of exposure to violence and anxiety and/or depression. The effects of violence are multifarious and affect mental health of children, adolescents, adults and older people (Kendler et al. 2000; Bulik et al. 2001). A dose-response relationship between number of violent events and psychopathology may occur and the time points of the life course when violence occurs may be associated with different psychopathological outcomes; and the effects of violence exposure may be protracted at the symptom level. It appears the exposure to violence overrides both the effect of coping mechanisms and of predispositions, which modify the probability of psychopathology following violence exposure. In cases of exposure to stress of lower magnitude, coping mechanisms as well as predispositions increase or diminish the likelihood of developing psychopathology.

Conclusion

Violence is an important single contributing factor, if not **the** most important single factor, to depression, anxiety and PTSD. Possibly, the effect of violence on psychopathology has been underestimated because of the short time period in which it has been investigated. It may be that exposure to violence is an experience which has an effect, independent of subjective appraisal. This knowledge should help us to question the existing stress models (e.g. from Seyle) and the concept of resilience. This stress model is based on the knowledge of that time—without the knowledge from neurosciences. The concept of resilience might be a purely psychological model requiring revision due to recent information from neurosciences; violence exposure might be “toxic”, having an effect for everybody.

A multidisciplinary violence model should be developed which not only relies on symptoms on the surface. Active on-going surveillance for violence exposure can lead to earlier mental health intervention. Primary prevention of violence is a paramount goal in face of the evidence of the huge burden of violence on hidden resulting from body changes and symptoms of psychopathology and the epidemic levels of violence.

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Part II
Self-Inflicted Violence

Violence Against Oneself

Metamorphosis at the rim of the ocean, Pen and ink and white chalk. Sketch by artist Hans Guggenheim

Chapter 4
Self-Inflicted Violence

José Manoel Bertolote and Diego de Leo

Introduction

Contemporary views of suicide see it as self-inflicted violence. It constitutes 1 of the 3 unnatural (or violent) causes of death, the other 2 being homicide and accidents. However, the relation between suicide and violence is unidirectional, inwards directed, in which the individual causes and receives the violence. Along the path of suicidal processes, different forms of external violence can be identified that contribute to the development of that process.

Concepts and social perceptions behind suicide have changed greatly over the ages. In some of the most aged manuscripts that reached us – usually mythical, theogonic or religious texts, such as Gilgamesh, the Upanishads, the Bhagavad Gita, the Theogony, the Torah (or Pentateuch) – suicide is presented as an heroic act, whose outcome not only redeems the hero of some previous misdeed but also brings some good to his people (Minois 1995).

Those books describe, among many other things, the creation of the World and of Man, and, with the exception of the Torah, gave origin to different polytheistic religions. However, as religions moved towards monotheism, being (or wishing to be) like God became anathema in many parts of the world, more particularly in Christian, Muslim and Jewish societies, this evolved into a theological credo according to which suicide became a major sin, a serious offense to God, and dealt with accordingly. In parallel, many philosophical schools also kept alive a

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great interest in suicide, along their interest both in issues related to live and death, and on the topic of free will.

From the eighteenth century on, however, suicide became to be perceived increasingly as a pathological event to such an extent that during the nineteenth century, eminent psychiatrists such as Philippe Pinel, Jean-Étienne Esquirol and Sigmund Freud stated that suicide was the consequence of some form of mental disorder, anchoring it clearly in the field of psychopathology.

Nevertheless, at the end of the nineteenth century, Emile Durkheim, one of the fathers of sociology, advanced the thesis that suicide was a predominantly sociological phenomenon. Around the same time there was a renewed interest in it from several important philosophers (e.g., Kierkegaard, Nietzsche) that continued into the twentieth century, when, particularly Sartre and Camus wrote extensively on it. Camus, who was awarded a Nobel Prize in Literature in 1957, stated that suicide was *the one truly serious philosophical problem* (Camus 1942).

At any rate, suicide remained also a matter of interest for medicine, and, in view of its impact on mortality, gradually it caught the attention of public health, along with other forms of violent deaths (i.e., homicide and accidents) (World Health Organization 1998). In 2002, the publication of the WHO World Report on Violence and Health made it worldwide clear that suicide represented a form of violence – self-inflicted – with a great relevance for Public Health (De Leo et al. 2002).

Definition

Given the multifaceted characteristics of suicide, it has received several definitions, some of them of an operational nature. In the World Report on Violence and Health there is a detailed discussion on different proposed definitions, highlighting advantages and limitations of each. It also discusses proposed synonyms or alternatives, such as the one employed in the International Classification of Diseases (self-inflicted injury).

De Leo and collaborators (2006) have proposed a much-used definition that takes into account limitations of previous ones. They stated: *Suicide is an act with a fatal outcome, which the deceased, knowing or expecting a potentially fatal outcome, has initiated and carried out with the purpose of bringing about wanted changes.*

Suicide Attempts

In addition to suicide – as an extreme form of self-injury – there are other non-fatal forms of self-injury that deserves mention, where the outcome in not death, varying from suicide attempts (or parasuicide) to different degrees of self-mutilation. However, the information on suicide attempts and these other forms of self-harm does not match the quantity and quality of that on mortality due to suicide. While information about suicide is based on periodic reports submitted by countries to the World Health Organization, and carefully checked for its accuracy, no records exist equivalent to suicide attempts. What is known about it comes from specific and circumstantial clinical/pathological studies, most of which cover relatively circumscribed geographic areas, generally a city or catchment area of a given hospital or emergency room.

Potential Causes of Suicide

Suicide is a multifactorial phenomenon for which no single cause can be identified. Generally speaking, suicide is a process affecting different domains of the life of an individual, i.e. physical, psychological, social and cultural.

It is believed that constitutional and genetic factors might play a role, but so far no specific mechanism has been pinpointed. There is room to believe that a chain of reactions mediated by noradrenergic and serotonergic systems end up by creating a given physiological tonus (more or less reactive, more or less impulsive) that will help in shaping terminal behaviours. Mann and collaborators have demonstrated the presence of the same genetic markers for violent behaviours in both people who died from suicide employing very violent methods and extremely violent homicides (Mann et al. 2009).

On the other hand, it is well known that hopelessness, helplessness and despair were present in most cases of suicide studied in this respect. Those feeling can arise from a variety of reasons, but are almost always present in some forms of mental disorders, among them, depression, alcoholism and schizophrenia. Indeed, psychological autopsy studies have shown that those 3 forms of mental disorders were present in about 80.0 % of all those who died from suicide. Sadly, the majority of them did not receive appropriate treatment and care – which is another form of violence.

The social domain provides numerous situations of violence that constitute risk factors for suicidal behaviours. From child, physical and sexual abuse to negative interpersonal experiences (e.g., rejection, affective breakdowns, social and professional ruptures) there is host of events that can combine with the previous one to facilitate specific forms of suicidal behaviour.

Finally, there are cultural factors that more than presenting a risk can act as protective factors. Some cultural factors, such as religiosity or spirituality, and social connectedness, can act as potent protective factors against suicidal behaviors, thus offsetting even the presence of strong risk factors active in one of the other domains (Bertolote and Fleischmann 2002).

Thus, in suicidology, instead of analyzing "causes" solely, it is preferable to consider that suicidal behaviors result from a balance between risk (predisposing and precipitating) factors and protective factors. Table 4.1 shows a non-exhaustive list of factors often found in people who engage in self-injurious behaviours, whereas some factors found to be protective against suicidal behaviours are presented in Table 4.2. Importantly, with the current level of knowledge there is

Table 4.1 Factors usually found in people at risk of suicidal behaviours

Predisposing (distal) factors	Precipitating (proximal) factors	
Socio-demographic and individual factors	Environmental factors	Recent stressors
Previous attempt(s)	Easy access to methods of suicide (e.g. firearms, poisons, high places)	Marital separation
Psychiatric disorders (mainly depression, alcoholism, schizophrenia and some types of personality disorders)		Bereavement
Medical diseases (terminal, painful, debilitating, disabling, socially rejected (e.g., AIDS))		Family conflict
Family history of suicide, alcoholism or other psychiatric disorders		Change in employment or financial situation
Being divorced, widow or single		Rejection from a significant other
Social isolation		
Being unemployed or retired		
Child/sexual abuse		Shame and fear of being found guilty
Recent discharge from a psychiatric hospital		

Table 4.2 Some factors considered to be protective against suicidal behaviours

Cognitive style and personality	Family standards	Cultural and social factors	Environmental factors
Self esteem	Good family relationships	Adherence to positive values, norms and traditions	Good nutrition
Self-assurance	Support from family members	Good relationships with friends, workmates and neighbors	Good sleeping habits
Help-seeking when needed	Good parenting in childhood	Support from relevant others	Sunlight
Openness to get advice		Friends who do not use drugs	Physical activities
Openness to others' experiences		Social integration at work, church and sports activities, clubs etc.	Tobacco and drug-free environments
Openness to acquire new knowledge		Clear goals in life	
Good communication skills			

no way of ascertaining the relative weights of each of them. Only in post-mortem analysis of individual cases one can make sense of the interplay of several factors, none of which in isolation could have produced that outcome.

Magnitude

The International Classification of Diseases – 10th Version (ICD-10) classifies deaths primarily into those due to natural causes (i.e., diseases, communicable or otherwise, and malformations) and those due to unnatural causes. The latter can be subdivided further into: Unintentional injuries (i. e., accidents not involving motor vehicles), road traffic accidents, intentional (interpersonal) injuries (i.e., homicides), self-inflicted injuries (i.e., suicide) and violence (i.e., collective violence such as wars, terrorism).

Currently, only slightly over 100 countries provided updated information on mortality to WHO (out of its 194 membership). According to the most recent data provided by those Member States, in 2011 there were nearly 850,000 deaths due to suicide. Table 4.3 lists suicide mortality rates (per 100,000) for males and females in those countries.

It can be seen that there are huge differences across countries but, although some variation in the quality and reliability of the data are to be expected, those figures represent a clear and informative picture of the world situation. In general, rates for males are 2–4 times higher than those for females and while the highest rates for males are usually observed in members of the former Soviet Union, the highest female rates are found in Asia. Yet, what is not visible in this table is the huge variation according to age, a serious inequity problem that will be discussed later on.

By comparison with other causes of death (Table 4.4), suicide ranked 14th in 2002, and WHO projections indicate that in 2030 it will raise to 12th, when it will reach more than a million deaths (Mathers and Loncar 2006), which is more than those due to homicides, terrorism and wars combined. It is noticeable that of all other unnatural causes of death, only road injury will kill more persons than suicide.

Inequity: A Special Form of Violence

In addition to the overall violence associated with suicide, there are other, more subtle forms of violence related to it: the disproportioned share affecting the elderly.

Age-adjusted suicide mortality rates were extracted from the WHO mortality data bank (2004 onwards) concerning people aged 65 years and above. In view of the disproportionate weight of individual cases of relatively rare events (such as suicide mortality) in small populations, countries with less than 100,000 inhabitants, those with very low overall suicide rates (less than 5 per 100,000) or less than 50 cases of suicide per year for both males and females aged 65 and plus years were not included in the analyses. The final sample, shown in Table 4.5, comprised of 65 countries, of which 22 were located in the American Region, 37 in the European

Table 4.3 Suicide rates per 100,000 by country, year and sex. Most recent year available; as of 2011

Country	Year	Males	Females
Albania	2003	4.7	3.3
Antigua and Barbuda	1995	0.0	0.0
Argentina	2008	12.6	3.0
Armenia	2008	2.8	1.1
Australia	2006	12.8	3.6
Austria	2009	23.8	7.1
Azerbaijan	2007	1.0	0.3
Bahamas	2005	1.9	0.6
Bahrain	2006	4.0	3.5
Barbados	2006	7.3	0.0
Belarus	2007	48.7	8.8
Belgium	2005	28.8	10.3
Belize	2008	6.6	0.7
Bosnia and Herzegovina	1991	20.3	3.3
Brazil	2008	7.7	2.0
Bulgaria	2008	18.8	6.2
Canada	2004	17.3	5.4
Chile	2007	18.2	4.2
China (selected rural and urban areas)	1999	13.0	14.8
China (Hong Kong SAR)	2009	19.0	10.7
Colombia	2007	7.9	2.0
Costa Rica	2009	10.2	1.9
Croatia	2009	28.9	7.5
Cuba	2008	19.0	5.5
Cyprus	2008	7.4	1.7
Czech Republic	2009	23.9	4.4
Denmark	2006	17.5	6.4
Dominican Republic	2005	3.9	0.7
Ecuador	2009	10.5	3.6
Egypt	2009	0.1	0.0
El Salvador	2008	12.9	3.6
Estonia	2008	30.6	7.3
Finland	2009	29.0	10.0
France	2007	24.7	8.5
Georgia	2009	7.1	1.7
Germany	2006	17.9	6.0
Greece	2009	6.0	1.0
Grenada	2008	0.0	0.0
Guatemala	2008	5.6	1.7
Guyana	2006	39.0	13.4
Haiti	2003	0.0	0.0
Honduras	1978	0.0	0.0
Hungary	2009	40.0	10.6
Iceland	2008	16.5	7.0
India	2009	13.0	7.8

(continued)

Table 4.3 (continued)

Country	Year	Males	Females
Iran	1091	0.3	0.1
Ireland	2009	19.0	4.7
Israel	2007	7.0	1.5
Italy	2007	10.0	2.8
Jamaica	1990	0.3	0.0
Japan	2009	36.2	13.2
Jordan	2008	0.2	0.0
Kazakhstan	2008	43.0	9.4
Kuwait	2009	1.9	1.7
Kyrgyzstan	2009	14.1	3.6
Latvia	2009	40.0	8.2
Lithuania	2009	61.3	10.4
Luxembourg	2008	16.1	3.2
Maldives	2005	0.7	0.0
Malta	2008	5.9	1.0
Mauritius	2008	11.8	1.9
Mexico	2008	7.0	1.5
Netherlands	2009	13.1	5.5
New Zealand	2007	18.1	5.5
Nicaragua	2006	9.0	2.6
Norway	2009	17.3	6.5
Panama	2008	9.0	1.9
Paraguay	2008	5.1	2.0
Peru	2007	1.9	1.0
Philippines	1993	2.5	1.7
Poland	2008	26.4	4.1
Portugal	2009	15.6	4.0
Puerto Rico	2005	13.2	2.0
Republic of Korea	2009	39.9	22.1
Republic of Moldova	2008	30.1	5.6
Romania	2009	21.0	3.5
Russian Federation	2006	53.9	9.5
Saint Kitts and Nevis	1995	0.0	0.0
Saint Lucia	2005	4.9	0.0
Saint Vincent and the Grenadines	2008	5.4	1.9
Sao Tome and Principe	1987	0.0	1.8
Serbia	2009	28.1	10.0
Seychelles	2008	8.9	0.0
Singapore	2006	12.9	7.7
Slovakia	2005	22.3	3.4
Slovenia	2009	34.6	9.4
South Africa	2007	1.4	0.4
Spain	2008	11.9	3.4
Sri Lanka	1991	44.6	16.8
Suriname	2005	23.9	4.8
Sweden	2008	18.7	6.8

(continued)

Table 4.3 (continued)

Country	Year	Males	Females
Switzerland	2007	24.8	11.4
Syrian Arab Republic	1985	0.2	0.0
Tajikistan	2001	2.9	2.3
Thailand	2002	12.0	3.8
TFYR Macedonia	2003	9.5	4.0
Trinidad and Tobago	2006	17.9	3.8
Turkmenistan	1998	13.8	3.5
Ukraine	2009	37.8	7.0
United Kingdom	2009	10.9	3.0
USA	2005	17.7	4.5
Uruguay	2004	26.0	6.3
Uzbekistan	2005	7.0	2.3
Venezuela	2007	5.3	1.2
Zimbabwe	1990	10.6	5.2

Source: WHO Mortality Data Bank

Table 4.4 Expected changes in rankings for 15 leading causes of death, 2002 and 2030

Disease or injury	2002 Rank	2030 Rank
Ischaemic heart disease	1	1
Cerebrovascular disease	2	2
Lower respiratory infections	3	5
HIV/AIDS	4	3
COPD	5	4
Perinatal conditions	6	9
Diarrhoeal diseases	7	16
Tuberculosis	8	23
Trachea, bronchus, lung cancers	9	6
Road traffic accidents	10	8
Diabetes mellitus	11	7
Malaria	12	22
Hypertensive heart disease	13	11
Self-inflicted injuries	**14**	12
Stomach cancer	15	10

Source: Mathers and Loncar (2006)

Region and 6 in Australasia. No countries from other parts of the world (i.e. Africa, East Mediterranean and South-East Regions) met the inclusion criteria.

Those rates were then compared with the overall national average suicide mortality rate by sex. Those rates at least 50.0 % above the overall national average for the same sex were considered as ‘disproportionally’ high; similarly, those rates 50.0 % or less below the overall national average for the same sex were considered as ‘disproportionally’ low. Tables 4.6 and 4.7 show the results of this comparison, for males and females, respectively.

It can be see that for males, with the exception of the Dominican Republic, suicide rates are disproportionately high among those aged 65 and plus. For

Table 4.5 Frequency and rate (per 100,000) of suicide mortality in selected countries among people aged 65 years and over, by sex. Most recent year available

		65–74 years of age				75+ years of age			
		Males		Females		Males		Females	
Country	Year	N	Rate	N	Rate	N	Rate	N	Rate
Argentina	2008	203	19.9	36	2.7	208	32.7	36	3.0
Australia	2006	92	13.6	31	4.4	90	17.8	34	4.6
Austria	2009	134	36.3	59	13.8	186	78.7	68	15.8
Belarus	2007	213	71.0	81	15.3	122	77.4	70	16.5
Belgium	2005	161	36.5	75	14.5	170	55.1	69	12.8
Brazil	2008	442	12.7	110	2.6	318	15.6	52	1.8
Bulgaria	2008	103	32.0	66	11.4	132	60.4	66	18.7
Canada	2004	165	15.7	64	5.5	154	20.7	44	3.7
Chile	2007	111	29.5	14	3.1	63	28.3	9	2.5
China (Hong Kong)	2009	77	33.2	40	17.9	85	46.6	74	28.9
Colombia	2007	120	18.6	4	0.5	67	18.1	3	0.6
Costa Rica	2009	12	14.7	2	2.3	6	11.3	0	0.0
Croatia	2009	87	46.1	34	13.5	107	97.2	53	24.5
Cuba	2008	136	36.4	67	16.8	199	82.8	37	13.1
Czech Rep.	2009	94	24.1	27	5.4	135	56.2	42	9.3
Denmark	2006	75	35.2	25	14.1	79	54.5	25	10.6
Dominican Rep.	2005	12	7.3	1	0.6	2	2.0	1	1.0
Ecuador	2009	44	17.5	5	1.8	20	12.4	9	4.5
El Salvador	2008	9	7.9	1	0.7	19	24.9	1	1.0
Estonia	2008	15	31.0	4	4.9	18	65.4	12	16.5
Finland	2009	74	33.5	20	7.8	57	38.2	20	7.3
France	2007	755	33.3	317	11.8	1,315	68.0	461	13.7
Georgia	2009	22	15.0	8	3.7	18	19.9	10	5.8
Germany	2006	1,215	27.9	448	9.1	1,160	49.8	611	13.7
Greece	2009	28	5.6	9	1.5	49	11.3	9	1.6
Guatemala	2008	11	6.2	1	0.5	9	8.6	1	0.0
Guyana	2006	9	65.3	0	0.0	3	43.5	0	0.0
Hungary	2009	240	65.3	93	16.8	214	90.5	91	18.4
Ireland	2009	26	19.2	10	7.0	5	5.8	1	0.8
Israel	2007	19	11.2	8	3.9	27	20.4	6	3.0
Italy	2007	450	15.7	143	4.3	596	28.3	171	4.8
Japan	2009	2,993	41.8	1,431	17.8	2,216	42.8	1,648	19.4
Kazakhstan	2008	143	47.7	41	8.3	86	73.6	47	16.8
Korea (South)	2009	1,498	99.5	647	34.2	1,006	173.9	920	77.2
Kyrgyzstan	2009	7	9.8	5	5.1	4	10.3	3	4.3
Latvia	2009	42	50.5	7	4.9	30	67.8	26	21.4
Lithuania	2009	91	80.6	21	11.1	57	83.5	40	24.1
Mexico	2008	187	9.8	12	0.6	139	12.2	13	0.8
Netherlands	2009	85	13.3	52	7.5	96	32.2	48	6.9
New Zealand	2007	19	13.8	0	0.0	23	23.2	7	4.9
Nicaragua	2006	8	11.5	1	1.3	5	12.9	1	2.0
Norway	2009	35	20.2	12	6.4	36	26.4	7	3.2

(continued)

Table 4.5 (continued)

		65–74 years of age				75+ years of age			
		Males		Females		Males		Females	
Country	Year	N	Rate	N	Rate	N	Rate	N	Rate
Panama	2008	11	16.8	2	2.9	3	7.8	2	4.5
Paraguay	2008	8	8.4	1	1.0	7	13.5	1	1.5
Peru	2007	10	2.1	5	0.9	13	5.2	3	0.9
Poland	2008	370	31.7	102	6.2	260	33.8	86	5.5
Portugal	2009	116	25.7	43	7.7	202	60.1	58	10.7
Puerto Rico	2005	29	23.3	6	3.9	20	23.1	3	2.4
Rep. Moldova	2008	43	47.9	15	11.1	9	18.5	9	9.6
Romania	2009	258	32.8	60	5.6	159	31.0	53	6.3
Russian Federation	2006	3,104	70.0	1,048	13.3	1,701	86.5	1,401	24.8
Serbia	2009	161	51.0	80	20.0	204	96.2	92	28.4
Singapore	2006	19	21.1	15	14.7	14	30.0	19	28.1
Slovakia	2005	36	24.3	11	5.0	40	45.3	11	6.2
Slovenia	2009	41	49.0	21	20.4	38	78.2	21	20.6
Spain	2008	339	19.4	118	5.8	484	32.9	154	6.6
Sweden	2008	110	34.2	33	7.7	108	43.2	42	8.7
Switzerland	2007	126	42.7	64	18.8	191	86.5	122	32.7
Trinidad and Tobago	2006	8	36.1	2	6.1	3	29.7	0	0.0
UK	2009	219	8.7	81	2.9	195	10.2	97	3.3
Ukraine	2009	862	53.3	313	11.2	532	66.3	313	15.4
Uruguay	2004	46	43.2	8	5.6	67	95.9	14	10.8
USA	2005	1,935	22.7	403	4.0	2,603	37.8	448	4.0
Uzbekistan	2005	42	12.0	12	2.9	13	8.4	7	2.7
Venezuela	2007	37	8.6	7	1.5	40	17.2	7	2.4

Source: WHO Mortality Data Bank

females, the tables show a similar situation, with the exception of the age groups 65–74 years in Latvia and in Estonia.

This is clearly a situation of a double violence: the self-inflicted violence that resulted in death and a long way of neglect and disguised violence towards the elderly that contribute to this outcome, and this is not fully acknowledged.

We know that many, perhaps most, cases of suicide can be prevented equally across all age groups, but there is a perverse tendency to accept suicide in late age as “normal”. There is no justification for the presence of more than 300.0 % more cases of suicide in some age groups than in others.

Table 4.6 Countries with the highest suicide mortality rates (per 100,000) among 65+ years old males, as compared to the national same-sex overall rate

Country	National overall male rate (A)	65–74 years old	% of (A)	75+ years old	% of (A)
Austria (2009)	23.8	36.3	151.0	78.7	330.0
China (Hong Kong) (2009)	19.0	33.2	174.0	46.6	245.0
Colombia (2007)	7.9	18.6	235.0	18.1	229.0
Croatia (2009)	28.9	46.1	159.0	97.2	336.0
Cuba (2008)	19.0	36.4	191.0	82.8	435.0
Denmark (2006)	17.5	35.2	201.0	54.5	311.0
Dominican Republic (2005)	3.9	7.3	187.0	2.0	- 51.0
Georgia (2009)	7.1	15.0	211.0	19.9	280.0
Panama (2008)	9.0	16.8	186.0	7.8	86.0
Portugal (2009)	15.6	25.7	165.0	60.1	385.0
Serbia (2009)	28.1	51.0	181.0	96.2	342.0
Slovenia (2009)	36.4	49.0	135.0	78.2	215.0
South Korea (2009)	39.9	99.5	249.0	173.9	436.0
Switzerland (2007)	24.8	42.7	172.0	86.7	349.0
Trinidad and Tobago (2006)	17.9	36.1	201.0	29.7	166.0
Uruguay (2004)	26.0	43.2	166.0	95.9	367.0

Suicide Prevention

The first well-documented systematic efforts for suicide prevention date back to the early twentieth century (1906), when the Salvation Army launched in London its program for suicide prevention while in the same year, the US National League started in New York the operations of “Save a Life” (Bertolote 2004).

These first steps to prevention were inspired by religious, humanitarian and philanthropic principles, conducted by society groups. They did not have a scientific basis. Several initiatives aimed at the prevention of suicide ensued, most of them inspired by clinical principles – usually individual approaches that reflected ideological and theoretical orientations, not always with a scientific basis.

The methodological weaknesses, and above all, limited results, of these initial programs did not fit the requirements of public health, particularly when compared to others with better scientific validation and more satisfactory results, both in terms of efficacy and cost-benefit.

In 1998, based on the available evidence, WHO identified, with the help of a distinguished panel of experts from different regions of the world, the following 3 priority areas for the development of suicide prevention activities:

- Treatment of people with mental disorders.
- Restricting access and methods used in suicidal behavior.
- Appropriate approach by the media when covering news and information related to suicidal behavior.

Table 4.7 Countries with the highest suicide mortality rates (per 100,000) among 65+ years old females, as compared to the national same sex overall rate

Country	National overall female rate (A)	65–74 years old	% of (A)	75+ years old	% of (A)
Austria (2009)	7.1	13.8	194.0	15.8	225.0
Bulgaria (2008)	6.2	11.4	184.0	18.7	301.0
China (Hong Kong) (2009)	10.7	17.9	174.0	28.9	167.0
Croatia (2009)	7.5	13.5	180.0	24.5	326.0
Cuba (2008)	5.5	16.8	305.0	13.1	238.0
Denmark (2006)	6.4	14.1	220.0	10.6	166.0
Estonia (2008)	7.3	4.9	67.0	16.5	226.0
Georgia (2009)	1.7	3.7	218.0	5.8	341.0
Germany (2006)	6.0	9.1	152.0	13.7	228.0
Israel (2007)	1.5	3.9	260.0	3.0	200.0
Latvia (2009)	8.2	4.9	60.0	21.4	260.0
Lithuania (2009)	10.4	11.1	107.0	24.0	231.0
Moldova (2008)	5.6	11.1	198.0	9.6	171.0
Panama (2008)	1.9	2.9	153.0	4.5	236.0
Portugal (2009)	4.0	7.7	193.0	10.7	267.0
Puerto Rico (2005)	2.0	3.9	195.0	2.4	120.0
Russian Federation (1995)	9.5	13.3	140.0	24.8	261.0
Serbia (2009)	10.0	20.0	200.0	28.4	284.0
Singapore (2006)	7.7	14.7	191.0	28.1	365.0
Slovenia (2009)	9.4	20.4	217.0	20.6	219.0
South Korea (2009)	22.1	34.2	155.0	77.2	349.0
Switzerland (2007)	11.4	18.8	165.0	32.7	286.0

In 2004, a group of experts from 15 countries from all continents gathered in Salzburg, Austria, under the auspices of the International Association for Suicide Prevention in order to conduct a systematic review of the scientific evidence on the effectiveness of virtually all strategies and interventions already proposed for the prevention of suicide (Mann et al. 2005).

This high level group of experts confirmed the relevance of the 3 above proposed areas, and added 2 more, whose evidence had arisen subsequently namely:

- Appropriate education and information for schools, the general public and workers in the health and social sectors.
- Active and systematic screening of people at high risk for suicidal behavior.

The report of this meeting was published in 2005 by the Journal of the American Medical Association (Mann et al. 2005).[1]

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[1] More recently, the World Health Organization has released the report Preventing Suicide: A Global Imperative www.who.int/mental_health/suicide-prevention/world_report_2014

Conclusion

Suicide is an immemorial, multifarious, complex and challenging form of violence. Due to the individual, family and collective suffering it creates, coupled with personal, material and economic losses it causes, it has become a serious public health problem. In addition, it hits in an unequal proportion different segments of society adding another layer of violence to an already tragic condition.

Although we have already an impressive armamentarium to prevent and cope with it, not always, not everywhere, and not for everybody it is sufficiently articulated and implemented. Well-conducted efforts, organized around national strategies, can make a real difference in order to reduce this avoidable form of violence.

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Part III
Violence in Families

Children’s toys recovered from Terezin (Theresienstadt). Sketch by artist Hans Guggenheim

Chapter 5
Child Abuse and Adult Psychopathology

Gilad Gal and Yael Basford

Introduction

The 1989 United Nations Convention on the Rights of the Child states that children should be protected *from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation* (Art. 19). As repeatedly documented, the failure of such protection is a risk factor for psychopathology early in life (cf. Herrenkohl and Herrenkohl 2007) and even years later (Caspi et al. 2008; Chapman et al. 2004; Duncan et al. 1996; Gal et al. 2011; Green et al. 2010; Kessler et al. 1997, 2010; MacMillan et al. 2001; Molnar et al. 2001; Mullen et al. 1996; Stein and Barrett-Connor 2000; Widom et al. 2007). Most of these studies, though, either considered only a single type of child abuse (CA), such as sexual or physical abuse, or employed a composite measure that was not sensitive to differential effects of specific abuse type. Only a few studies compared associations of CAs with different types of mental disorders or examined changes in CA effects over the life course.

The current approach to child abuse refers to 4 categories: sexual-, physical-, emotional-abuse, and neglect. Each of these types of abuse can occur singly or in combination with other types of abuse, as well as other childhood adversities (CAs). By and large, child sexual abuse (CSA) and physical abuse (CPA) were studied more extensively than emotional abuse and neglect. In addition, while some studies reported on outcomes of emotional abuse and neglect, they were mostly based on specific, mainly clinical, populations which do not allow firm conclusions. However, in recent years an increasing amount of attention is being placed on the adverse effects of emotional abuse and neglect and their life-long outcomes were studied in community-based, samples as well.

The current chapter will present data on the long term outcomes of all types of abuse. Methodological attention will be given to specific aspects. First, although

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most studies used retrospective designs a few prospective cohort studies were published, giving additional support to the findings. Second, theoretical propositions were made regarding gender differences in the vulnerability to long term outcomes following child abuse (Cutler and Nolen-Hoeksema 1991). Some reports on the short term impact of CA indicated that boys are more prone to develop externalizing behaviors such as aggression, impulsivity and defiance in response to abuse, whereas girls are at risk for internalizing problems, including depression, low self-confidence, somatic complains and social withdrawal (Darves-Bornoz et al. 1998; Herrenkohl and Herrenkohl 2007; Widom 1999). However, investigations into sex differences with regard to long-term outcomes in adulthood related to child abuse are missing (Herrenkohl et al. 2008). Third, most studies considered adult Axis I disorders of the *DSM*-IV (APA 2000) such as mood, anxiety, impulse control, and substance use disorders. Fewer studies focused on the link between childhood adversity and Axis II personality disorders (PDs), which are generally persistent overtime and are often represented by patterns of behaviours and experiences that can negatively impact areas of cognition, affect, and interpersonal functioning (American Psychiatric Association 2000).

Objectives

To review the current knowledge on the long term effects of child abuse as indicated in the epidemiological field of research. We will review literature published since year 2000–2012. The chapter will include studies focusing on CSA, CPA, emotional abuse and neglect, as well as studies combining these types. As an outcome we will focus on 3 types of common psychopathologies: mood and anxiety disorders, representing Axis I, and PDs, representing Axis II disorders.

Methods

We conducted a systematic review of available studies published between January 1st 2000 and December 31st 2012.

Child Sexual Abuse

Mood Disorders

This is probably the most robust finding on the long-term effects of child abuse. The majority of these studies applied retrospective methodology and 4 were prospective. Most studies reported lifetime prevalence, while 5 studies reported current (mainly 12-months) mood disorders. Eleven retrospective and two prospective studies have indicated increased risk for lifetime mood disorders (OR range 1.4–3.9). No significant associations were reported by 2 studies (retrospective and prospective). Five studies investigated the risk for 12-months mood disorders, yielding inconsistent findings. Hovens et al. (2010) reported on increased risk for both seldom (OR = 1.9) and frequent (OR = 3.4) mood and anxiety disorders, while the 2 other studies indicated a mild significant association (OR range 1.1–1.3) (Gal et al. 2011; Chapman et al. 2004; Hanson et al. 2001; Spatz-Widom et al. 2007).

Five studies differentiated between male and female subjects (Afifi et al. 2008; Chapman et al. 2004; Dinwiddie et al. 2000; Macmillan et al. 2001; Molnar et al. 2001). Although similar range were indicated among females (OR range 1.8–3.9) and males (OR range 1.8–3.9), the studies were inconsistent in determining differential risk to develop mood disorders between genders. Based on 2 replications of the National Comorbidity Survey in the USA, as well as the US ACE study, similar associations were reported for females and males for CSA and lifetime mood disorders (Afifi et al. 2008; Chapman et al. 2004; Molnar et al. 2001), as well as current mood disorders (OR females 2.0, males 1.6) (Chapman et al. 2004). However, 2 other studies reported that although significant associations were present for both genders, they were more robust in either males or females. Based on a Canadian sample, Macmillan et al. (2011) observed a higher risk among females (OR = 3.9) than males (OR = 1.9). In contrast, based on an Australian sample, Dinwiddie et al. (2000) reported a lower risk among females (OR = 2.2) than males (OR = 3.9).

Anxiety Disorders

Some studies explored the impact of CSA on the risk for lifetime anxiety disorders (Lindert 2014). Several studies (Gal et al. 2011; Green et al. 2010) found significant associations, while other studies (Fujiwara and Kawakami 2011) did not find a such associations. Some studies differentiated between males and females (Afifi et al. 2008; Cougle et al. 2010; Macmillan et al. 2001). Other studies (Afifi et al. 2008; Macmillan et al. 2001) reported significant findings between sexual abuse and anxiety disorders (OR = 1.6; 2.4, respectively) but not among males (OR = 1.5; 1.2, respectively).

Posttraumatic Stress Disorder

Both Cougle et al. (2010) and Molnar et al. (2001) reported gender effects on the association between CSA and PTSD. Cougle et al. (2010) reported an increased risk for PTSD among both females (OR = 2.6) and males (OR = 2.4). A more robust effect was indicated by Molnar et al. (2001) both among females (OR = 10.2) and males (OR = 5.3).

Panic Disorder

Six studies referred to panic disorder (Cougle et al. 2010; Dinwiddie et al. 2000; Goodwin et al. 2005; Jonas et al. 2011; Kendler et al. 2000; and Molnar et al. 2001) and yielded significant associations (OR range: 1.9–5.0) with the exception of Molnar et al. (2001). Two studies, one in the USA (Cougle et al. 2010) and the other in Australia (Dinwiddie et al. 2000) found an increased risk for panic disorder following CSA both in females (OR = 2.0; 3.5) and males (OR = 1.9; 5.0), respectively. Drawing on an earlier US survey, Molnar et al. (2001) did not indicate a significant association among both genders (OR females 1.4; males 0.8). Goodwin et al. (2005) were alone in exploring the risk of experiencing panic attacks, reporting a strong relationship (OR = 4.1).

Two studies explored social phobia and have reported inconsistent results. Cougle et al. (2010) indicated increased risk among both females (OR = 1.6) and males (OR = 2.3), while, Dinwiddie et al. (2000) found a strong association for females (OR = 3.4) but not for males (OR = 1.0). Jonas et al. (2011) were the only study exploring the association between CSA and phobia and OCD, and found significant increases in risk for both (OR = 2.1; 1.8 respectively).

Personality Disorders

Two studies explored long term outcomes of CSA on personality disorders (PDs). Afifi et al. (2011) indicated an increased risk for Cluster A (OR = 1.2), Cluster B (OR = 1.6), but not for Cluster C (OR = 1.1) PDs. However, Moran et al. (2011) have indicated an increased risk for PDs as a function of the number of CSA episodes: for Cluster A (single event OR = 1.0, multiple OR = 2.7), Cluster B (single event OR = 1.9, multiple OR = 2.3), and Cluster C (single event OR = 0.9, multiple OR = 1.8).

Child Physical Abuse

Mood Disorders

Several studies investigated the effects of CPA on the risk of developing lifetime mood disorders in adulthood (Lindert et al. 2014). Some (Fujiwara and Kawakami 2011; Green et al. 2010; Wainwright and Surtees 2002) reported an increased risk for lifetime mood disorder following CPA (OR range 1.8–3.9). One study did not indicate significant associations (Gal et al. 2011).

Anxiety Disorders

Several studies explored the relationship between CPA and the risk of developing anxiety disorders (Lindert et al. 2014). Of them, 7 studies related to lifetime anxiety disorders. Some retrospective studies (Gal et al. 2011; Green et al. 2010; Macmillan et al. 2001 and some (Scott et al. 2010) reported on a significant increase in the risk for lifetime anxiety disorders following CPA (OR range 1.6–2.7), However, others (Fujiwara and Kawakami 2011) did not yield significant results. CPA, anxiety and gender.

Two studies reported on differential gender effects. Afifi et al. (2008) found an increased risk among males (OR = 2.3), but not among females (OR = 1.2). However, Macmillan et al. (2001) indicated an increased risk both among females (OR = 2.2) and males (OR = 1.7).

Panic Disorders

One study referred only to the risk of developing panic disorders (Goodwin et al. 2005), and found a significantly elevated risk following CPA (OR = 3.0). One study controlled for gender effects for various lifetime anxiety disorders (Cougle et al. 2010). Among females an elevated risk was observed for PTSD (OR = 1.7), generalized anxiety disorder (GAD) (OR = 1.4), and panic disorder (OR = 1.5), while among males an increased risk was found for post-traumatic stress disorder (PTSD) (OR = 2.4) and social anxiety (OR = 1.5).

Personality Disorders

Only one study (Afifi et al. 2008) explored the associations between CPA and personality disorder (PD). The risk of developing Cluster B PDs (OR = 1.4) was increased, while Cluster A and C PDs were not significantly associated (both ORs = 1.1) (Table 5.2).

Child Neglect

We identified several studies exploring the associations between childhood neglect and psychopathology in adulthood. Three studies explored the associations between PDs and childhood neglect. Johnson et al. (2001) reported on increased risk for Cluster A PD (OR = 3.5), while the other studies (Afifi et al. 2011; Cohen et al. 2001) found no such association (ORs = 1.1; 0.7, respectively). Similarly, a significant association between neglect and Cluster B PD was indicated in one study (OR = 1.3) (Afifi et al. 2011), but not in the 2 other studies (ORs = 1.7; 1.8)

Table 5.1 Associations between child sexual abuse and psychopathology in adulthood

Authors	Study name, country, year	Study population: N, sex, age	Direction	Assessment method	Exposure age	Type of outcome		Covariates
Afifi et al. (2008)	National Comorbidity Survey Replication (NCS-R), USA, 2001–2003	N = 5,692 F/M NA Age NA	R	Face-to-face interview CIDI	<16	Axis I: Mood disorder, anxiety	Females *Mood disorder* 1.89 (1.49–2.41); *Anxiety* 1.57 (1.24–2.00) Males *Mood disorder* 1.78 (1.11–2.88); *Anxiety* 1.52 (NA)	Marital status, income, education, ethnicity
Afifi et al. (2011)	National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) USA 2004–2005	N = 34,653 F/M NA, Ages 20+	R	Alcohol use disorder and associated disabilities interview schedule-diagnostic and statistical manual of mental disorders-Fourth edition (AUDADIS-IV)		Personality disorders	Cluster A 1.22 (1.00–1.50); Cluster B 1.63 (1.37–1.93); Cluster C 1.10 (0.89–1.36)	General household dysfunction, age, gender, household income, education, marital status, ethnicity
Chapman et al. (2004)	Adverse Childhood Experiences study (ACE), USA, 1995–1996	N = 9,460, 5,108 F, 4,352 M Mean age 56.6	R	Mailed questionnaire, ACE	<18	Axis I: MDD	**Females** Lifetime MDD 1.8 (1.5– 2.0); Recent MDD 2.0 (1.7–2.3) **Males** Lifetime MDD 1.6 (1.3–2.0); Recent MDD 1.6 (1.2–2.1)	NA

Cougle et al. (2010)	National Comorbidity Survey-Replication (NCS-R), USA, 2001–2003	N = 4,141 2,319 F, 1,822 M Mean age 29.9	R	Face-to-face interview CIDI	<18	Axis I: lifetime anxiety disorders	Female Social anxiety 1.62 (1.20–2.20); panic disorder 2.02 (1.41–2.91); GAD 1.23 (0.91–1.65); PTSD 2.59 (2.02–3.34) Male Social anxiety 2.26 (1.31–3.91); panic disorder 1.94 (0.81–4.67); GAD 2.05 (0.85–4.91); PTSD 2.39 (0.89–6.41)	Gender, age, ethnicity, marital status, childhood parental divorce/loss, parental anxiety, and income
Dinwiddie et al. (2000)	Australian National Health and Medical Research Council (NH&MRC) Twin Register Australia 1992–1993	N = 5,946 3,867 F, 2,079 M, Mean age NA	R	Structured telephone interviews	<15	Axis I: MDD, panic disorder, social phobia	Females MDD 2.20 (1.66–2.92); Panic disorder 3.54 (2.29–5.47); Social phobia 3.41 (1.75–6.66); Males MDD 3.93 (2.23–6.93); Panic disorder 5.02 (1.90–13.25); Social phobia 1.02 (0.14–7.57)	Gender

(continued)

Table 5.1 (continued)

Authors	Study name, country, year	Study population: N, sex, age	Direction	Assessment method	Exposure age	Type of outcome		Covariates
Fujiwara and Kawakami (2011)	World Mental Health Survey (WMHS), Japan, 2002–2004	N = 1,722 850 F, 827 M Mean age 50	R	Face-to-face interview CIDI	<18	Axis I: mental disorders	Mood disorder: 1.3 (0.3–5.2); anxiety 1.4 (0.5–4.2)	Age of disorder onset
Gal et al. (2011)	World Mental Health Survey (WMHS), Israel 2003–2004	N = 3,978 2,023 F, 1,955 M Mean age 47	R	Face-to-face interview CIDI	<18	Axis I: mood, anxiety	Mood disorders: lifetime: childhood 1.65 (1.00–2.72); adolescence 1.26 (0.63–2.50); anxiety disorders: lifetime: childhood 2.33 (1.29–4.22); adolescence 1.02 (0.37–2.81) 12- months: childhood 1.27 (0.62–2.59); adolescence 1.34 (0.58–3.11); 12-months: childhood 1.78 (0.86–3.89); adolescence 0.57 (0.13–2.44)	Gender, marital status, religious observance, traumatic life events

Goodwin et al. (2005)	Christchurch Health and Development Study (CHDS), New Zealand 1995–1997	N = 1,265 630 F, 635 M Ages 25	P	Face-to-face interview CIDI	<16	Axis I: major depression, anxiety Axis II: personality disorder	Panic attack 4.1 (2.3–7.2); panic disorder 2.2 (0.98–5.0)	Childhood physical punishment, paternal education, IQ, gender, parental history of illicit drug use, changes of parents (by age 15)
Green et al. (2010)	National Comorbidity Survey Replication (NCS-R) USA 2001–2003	N = 5,692 2,390 F, 3,302 M	R	Face-to-face interview CIDI	<16	Axis I: mood disorders, anxiety	Mood 2.1 (1.6–2.6); Anxiety 1.9 (1.6–2.4)	Age, gender
Hanson et al. (2001)	Two nationwide samples of women, USA	N = 4,008 all F	R	Telephone interview	18	Axis I: depression, PTSD	Depression : Lifetime 1.74 12-months 1.88; Current PTSD 1.39; Lifetime PTSD 1.78	Family status, trauma throughout life, threat or injury
Hovens et al. (2010)	Netherlands Study of Depression and Anxiety (NESDA), The Netherlands 2004–2007	N = 2,981, 1,967 F, 1,014 M Mean age 41	R	Face-to-face interview CIDI (WHO version 2.1)	<16	Axis I depression and anxiety	12-month seldom depression and anxiety 1.95 (1.25–3.03); 12-month frequent depression and anxiety 3.41 (2.19–5.31)	Age, gender, education
Jonas et al. (2010)	National Centre for Social Research, UK 2006–2007	N = 7,353	R	face-to-face interview Clinical Interview Schedule- Revised	<16	Axis I: MDD, GAD, Panic, Phobia, OCD, PTSD	MDD: 1.74 (1.5–2.0); GAD: 1.64 (1.4–1.9); Panic: 1.60 (1.3–2.0); Phobia: 2.07 (1.7–2.5); OCD: 1.84 (1.5–2.3); PTSD: 1.93 (1.7–2.3)	Age, gender

(continued)

Table 5.1 (continued)

Authors	Study name, country, year	Study population: N, sex, age	Direction	Assessment method	Exposure age	Type of outcome		Covariates
Kendler et al. (2000)	Virginia Twin Registry, USA 1987–1989	N = 1,411 pairs Only female mean age 30	R	Structured Clinical Interview for DSM-IV (SCID)	<16	Axis I: MDD, GAD, panic disorder	MDD 1.72 (1.30–2.26); GAD 1.62 (1.12–2.34); panic disorder 1.99 (1.12–3.52)	Family functioning
MacMillan et al. (2001)	Ontario Health Survey- Mental Health Supplement, Canada 1990–1991	N = 7,016 3,678 F, 3,338 M Ages 15–64	R	Face-to-face interview CIDI	NA	Axis I: lifetime disorders Any anxiety disorder, Major depressive disorder, any psychiatric disorder	MDD 3.4 (2.3–4.8); Any anxiety disorder 2.0 (1.5–2.7); **Females:** MDD 3.9; Any anxiety disorder 2.4 **Males**: MDD 1.9; Any anxiety disorder 1.2	Age, gender, parental education
Molnar et al. (2001)	National Comorbidity Survey (NCS), USA 1990–1992,	n = 5,877, 2,921 F, 2,945 M, age 15–54	R	Face-to-face interview CIDI	<18	Axis I: mood & anxiety disorders	**Females**: MDD 1.8 (1.4–2.3); GAD 1.4 (0.9–2.0); panic disorder 1.4 (1.0–2.1); PTSD 10.2 (7.1–10.5) **Males**: MDD 1.8 (0.9–3.7); GAD 0.9 (0.6–1.5); panic disorder 0.8 (0.2–2.7); PTSD 5.3 (2.3–12.4)	Age cohort, race, divorced parents, parental psychopathology, parental verbal and physical abuse, parental substance use, and the log odds of the outcome for each year at risk

Moran et al. (2011)	Study of adolescent and young adult health in Victoria, Australia 2001–2003	N = 1,520 1,000 F, 520 M Ages 24–25. Mean age 24.1	R + P	Face-to-face interview Standardised Assessment of personality	<16	Axis II: personality disorders	One episode of CSA: Cluster A PD 1.0 (0.41–2.5); cluster B 1.9 (0.93–3.8); cluster C 0.94 (0.43–2.1); any PD 1.2 (0.72–2.1) > one episode: Cluster A 2.7 (1.5–4.9); cluster B 2.3 (1.1–4.5); cluster C 1.8 (1.0–3.2); any PD 1.9 (1.1–3.5)	Symptoms of anxiety or depression before the age of 24, sex, parental education, parental divorce/separation and parental smoking
Nelson et al. (2002)	Australia National Twin Registry, Australia 1996–2000	N = 1,991 1,158 F, 833 M Mean age 29.9	P	Telephone interview	<18	Axis I: MDD	MDD 1.81 (1.27–2.59)	Gender, family environmental factors
Perez-Fuentes et al. (2013)	The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) Waves 1 and 2 USA 2004–2005	N = 34,653 18,055 F 16,598 M Ages 18 and up	R	face-to-face interview	<17	Axis I: mood disorders, anxiety	Number of SA: 1: Mood- 2.85 (2.40–3.40); anxiety 2.71 (2.34–3.13) 2: mood 2.83 (2.34–3.42); anxiety 3.18 (2.70–3.74) 3: mood 3.84 (3.05–4.84) anxiety 4.60 (3.81–5.56) 4: mood 4.19 (3.48–5.04); anxiety 5.22 (4.33–6.29)	Socio demographic characteristics, other types of sexual abuse,

(continued)

Table 5.1 (continued)

Authors	Study name, country, year	Study population: N, sex, age	Direction	Assessment method	Exposure age	Type of outcome		Covariates
Slopen et al. (2010)	South Africa Stress and Health Study, South Africa 2002–2005	N = 4,351 F/M NA Age NA	R	Face-to-face interview CIDI	<18	Axis I: mood disorders, anxiety disorders	First onset of DSM disorders: Ages 18–24: 1.2 (0.2, 6.9); Age 25+: 6.3 (1.4, 27.9)	Age-at-interview, gender, race, and prior onset of comorbid conditions that began prior to age 17
Spatz Widom et al. (2007)	USA 1989–1995	N = 119 6.583 F, 613 M Mean age: 28.7	P	Mental Health Diagnostic Interview Schedule	<12	Axis I: lifetime major depressive disorder, current MDD	Lifetime MDD 1.20 (0.72–2.01) 12-months MDD 1.09 (0.55–2.18)	Gender, ethnicity

NA data not available, *CIDI* Composite International Diagnostic Interview, *MDD* Major depressive disorder, *GAD* generalized anxiety disorder, *PD* personality disorder, *PTSD* post traumatic stress disorder, *OCD* obsessive compulsive disorder, *AOR* adjusted odds ratio, $CI = 95.0$ % confidence interval, *R* retrospective, *P* prospective

Table 5.2 Associations between child physical abuse and psychopathology in adulthood

Covariates	Outcome measure AOR (CI)	Type of outcome	Exposure age	Assessment method	Design	Study population: N, sex, age	Study name, country, year	Authors
Marital status, income, education, ethnicity	**Females:** Mood disorder: 1.36 NS; Anxiety: 1.19 NS; **Males:** Mood disorder 1.78 (1.03–3.06); Anxiety: 2.30 (1.37–3.85);	Axis I: mood disorder, anxiety	<16	Face-to-face interview CIDI	R	N = 5,692	National Comorbidity Survey Replication (NCS-R), USA, 2001–2003	Afifi et al. (2008)
General household dysfunction, Age, Gender, Household income, Education, Marital Status, Ethnicity	PD clusters: cluster A 1.08 (0.86–1.35); cluster B 1.42 (1.22–1.65); Cluster C 1.09 (0.87–1.36)	Axis II: personality disorders		Alcohol Use Disorder and Associated Disabilities Interview Schedule-Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (AUDADIS-IV)	R	N = 34,653 F/M NA, Ages 20+	National Epidemiologic Survey on Alcohol and Related Conditions (NESARC 2004–2005) USA 2004–2005	Afifi et al. (2011)
NA	MDD **Female:** Lifetime: 2.1 (1.8–2.4); Recent: 2.3 (2.0–2.7) **Male:** Lifetime: 1.6 (1.4–1.9); Recent: 1.8 (1.4–2.2)	Axis I: MDD	<18	Mailed questionnaire, ACE	R	N = 9,460, 5,108 F 4,352 M Mean age 56.6	Adverse Childhood Experiences study (ACE), USA, 1995–1996	Chapman et al. (2004)

(continued)

Table 5.2 (continued)

Covariates	Outcome measure AOR (CI)	Type of outcome	Exposure age	Assessment method	Design	Study population: N, sex, age	Study name, country, year	Authors
Gender, age, ethnicity, marital status, childhood parental divorce/loss, parental anxiety, and income	**Female:** social anxiety 1.01 (0.77–1.32); panic disorder 1.49 (1.04–2.14); GAD 1.35 (1.03–1.78); PTSD 1.70 (1.27–2.29) **Male:** social anxiety 1.47 (1.09–1.99); panic disorder 1.28 (0.72–2.26); GAD 1.28 (0.78–2.08); PTSD 2.43 (1.33–4.46)	Axis I: lifetime anxiety disorders	<18	Face-to-face interview CIDI	R	N = 4,141 2,319 F, 1,822 M. Mean age 49.9	National Comorbidity Survey-Replication USA 2001–2003	Cougle et al. (2010)
Age of disorder onset	Mood disorder 1.8 (1.2–2.9); anxiety disorder 1.0 (0.6–1.2)	Axis I: mental disorders	<18	Face-to-face interview CIDI	R	N = 1,722 850 F, 827 M Mean age 50	World Mental Health Japan, 2002–2004	Fujiwara et al. (2011)
Gender, marital status, religious observance, traumatic life events	Mood disorders^a: lifetime: 1.57 (0.87–2.83); 12-month 1.39 (0.66–2.95) Anxiety disorders^a: lifetime 2.75 (1.40–5.42); 12-month 1.93 (0.78–4.75)	Axis I: mood, anxiety	<18	Face-to-face interview CIDI	R	N = 3,978 2,023 F, 1,955 M Mean age 47	World Mental Health Survey, Israel, 2003–2004	Gal et al. (2011)

Childhood physical punishment, paternal education, IQ, gender, parental history of illicit drug use, changes of parents (by age 15)	Panic attack 2.3 (1.1–4.9); panic disorder 3.0 (1.1–7.9)	Axis I: major depression, anxiety Axis II: personality disorder	<16	Face-to-face interview CIDI	P	N = 1,265 630 F, 635 M Ages 25	Christchurch Health and Development Study (CHDS). New Zealand 1995–1997	Goodwin et al. (2005)
Age, sex	Mood: 1.5 (1.2–1.8); Anxiety: 1.6 (1.3–1.8)	Axis I: mood disorders, anxiety	<16	Face-to-face interview CIDI	R	N = 5,692 2,390 F, 3,302 M	NCS-R elaborate USA 2001–2003	Green et al. (2010)
Age, sex, education	12-month seldom depression and anxiety 2.73 (1.61–4.62); 12-month frequent depression and anxiety 6.69 (3.54–12.6)	Axis I: depression and anxiety	<16	Face-to-face interview CIDI	R	N = 2,981, 1,967 F, 1,014 M Mean age 41	Netherlands Study of Depression and Anxiety (NESDA), The Netherlands 2004–2007	Hovens et al. (2010)
Age, gender, parental education	MDD 2.5 (1.8–3.3); Any anxiety disorder 1.9 (1.6–2.3) **Females:** MDD 3.2; Any anxiety disorder 2.2 **Males**: MDD 1.5; Any anxiety disorder 1.7	Axis I: lifetime disorders. Any anxiety disorder, Major Depressive Disorder, any psychiatric disorder	NA	Face-to-face interview CIDI	R	N = 7,016 3,678 F, 3,338 M. Ages 15–64	Ontario Health Survey- Mental Health Supplement Canada 1990–1991	MacMillan et al. (2001)

(continued)

Table 5.2 (continued)

Covariates	Outcome measure AOR (CI)	Type of outcome	Exposure age	Assessment method	Design	Study population: N, sex, age	Study name, country, year	Authors
12- month disorders and lifetime disorders	Risk for 12-month disorders: Any mood disorder 1.86 (1.12–3.08); any anxiety disorder 2.41 (1.47–3.97); any disorder 1.71 (1.01–2.88) Risk for lifetime disorders: Any mood disorders 1.80 (1.21–2.68); any anxiety disorder 2.04 (1.24–3.33); any disorder 2.12 (1.20–3.75)	Axis I: lifetime mood disorders, lifetime PTSD, lifetime Anxiety DISORDERS	<17	Face-to-face interview CIDI	R + P	N = 2,144, 1,182 F, 962 M Ages 16–26, mean age 21.5	New Zealand Mental Health Survey 2003–2004	Scott et al. (2010)
Age-at-interview, gender, race, and prior onset of comorbid conditions that began prior to age 17	First onset of *DSM* disorders: age 18–24 1.1 (0.8, 1.7); Age 25+ 1.0 (0.6, 1.8)	Axis I: mood disorders, anxiety disorders	<18	Face-to-face interview CIDI	R	N = 4,351 F/M NA Ages 18+	South Africa Stress and Health Study 2002–2005	Slopen et al. (2010)

Type of abuse (physical, sexual, neglect), lifetime MDD vs. current MDD	MDD: Lifetime 1.59 (1.00–2.52); 12-months 1.34 (0.72–2.46)	Axis I: lifetime Major Depressive Disorder, current MDD	<12	Mental Health Diagnostic Interview Schedule	P	N = 1,196 583 F, 613 M Mean age: 28.7	USA 1989–1995	Spatz Widom et al. (2007)
Age, prior history of depression	Depression : Lifetime 1.73 (1.16–2.60); 12-months 2.03 (0.99–4.17)	Axis I: depression	17	Mailed questionnaire	R	N = 3,353 1,850 F 1,503 M Age 48–79	Health and Life Experiences Questionnaire (HLEQ) UK 1996–2000	Wainwright and Surtees (2002)

NA data not available, *CIDI* composite international diagnostic interview, *MDD* Major depressive disorder, *GAD* generalized anxiety disorder, *PD* personality disorder, *PTSD* post traumatic stress disorder, *OCD* obsessive compulsive disorder, *AOR* adjusted odds ratio, *CI* = 95.0 % confidence interval

[a] Childhood abuse only

Table 5.3 Associations between child neglect and psychopathology in adulthood

Covariates	Outcome measure AOR (CI)	Type of outcome	Exposure age	Assessment method	Design	Study population: N, sex, age	Study name, country, year	Authors
Gender, age, marital status, education, income, race, parental psychopathology	Any mood 2.59 (1.98-3.40); MDD 2.49 (1.89–3.27); Any anxiety 2.24 (1.73–2.90); GAD 2.38 (1.60–3.54); Social phobia 1.91 (1.45–2.52); Panic disorder 1.47 (0.90–2.42); PTSD 6.40 (4.41–9.28)	Axis I: mood disorder, MDD, anxiety, GAD, social phobia, panic disorder, PTSD		Face-to-face interview CIDI	R	N = 5,159	National Comorbidity Survey Replication (NCS-R), USA, 2001–2003	Afifi et al. (2009)
General household dysfunction, age, gender, household income, education, marital status, ethnicity	Cluster A: 1.09 (0.92–1.30); Cluster B: 1.34 (1.14–1.57); Cluster C: 1.12 (0.95–1.32)	Axis II: personality disorders		Alcohol Use Disorder and Associated Disabilities Interview Schedule-Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (AUDADIS-IV)	R	N = 34,653 F/M NA, Ages 20+	National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) USA 2004–2005	Afifi et al. 2011
Age, gender, SES, race	Cluster A 0.68 NS; Cluster B 1.72 (0.49–6.1)	Axis II	>18	Face-to-face interview DISC	P	N = 660, 330 F Mean age 22.5	Children in the Community USA 1994–1995	Cohen et al. (2001)

Age of disorder onset	Disorder onset age 19–29 1.9 (0.8–4.6); Onset age >30 0.8 (0.4–1.8)	Axis I: mental disorders.	<18	Face-to-face interview CIDI	R	N = 1,722 850 F 827 M Mean age 50	World Mental Health Survey (WMHS) Japan, 2002–2004	Fujiwara, and Kawakami (2011)
Age, sex	Mood 1.8 (1.3–2.4); Anxiety 1.6 (1.3–1.9)	Axis I: mood disorders, anxiety	<16	Face-to-face interview CIDI	R	N = 5,692 2,390 F, 3,302 M	National Comorbidity Survey Replication (NCS-R) USA 2001–2003	Green et al. (2010)
Age, sex, education	12-month seldom depression and anxiety 4.88 (3.40–7.02) 12-month frequent depression and anxiety 9.03 (6.19–13.2)	Axis I: depression and anxiety	<16	Face-to-face interview CIDI (WHO version 2.1),	R	N = 2,981, 1,967 F, 1,014 M Mean age 41	Netherlands Study of Depression and Anxiety (NESDA), The Netherlands 2004–2007	Hovens et al. (2010)
Age, gender	Cluster A 3.55 (1.84–6.52); Cluster B 1.76 (0.88–3.51); Cluster C 1.79 (0.81–3.95)	Axis II:		Face-to-face interview Personality Diagnostic questionnaire	P	N = 793 Age 22 years	community-based longitudinal study USA	Johnson et al. (2001)
Age, gender, education, marital status, hypertension and recent life event	Depression 1.50 (0.83–2.74)	Axis I: depression	<18	Face-to-face interview Mini International Neuropsychiatric Interview (MINI), over 16 on the CES-D, or anti-depressant treatment	R	N = 942 Age 65 and over	study of late-life psychiatric disorder (ESPRIT), France 1999–2001	Ritchie et al. (2009)

(continued)

Table 5.3 (continued)

Covariates	Outcome measure AOR (CI)	Type of outcome	Exposure age	Assessment method	Design	Study population: N, sex, age	Study name, country, year	Authors
Type of abuse (physical, sexual, neglect), lifetime MDD vs. current MDD	lifetime MDD 1.75 (1.01–3.02); Current MDD 1.59 (1.10–2.29).	Axis I: lifetime major depressive disorder, current MDD	<12	Mental Health Diagnostic Interview Schedule	P	N = 1,196 583 F, 613 M Mean age: 28.7	USA 1989–1995	Spatz Widom et al. (2007)

NA data not available, *CIDI* Composite International Diagnostic Interview, *MDD* Major depressive disorder, *GAD* generalized anxiety disorder, *PD* personality disorder, *PTSD* post traumatic stress disorder, *OCD* obsessive compulsive disorder, *AOR* adjusted odds ratio, *CI* = 95.0 % confidence interval

(Cohen et al. 2001; Johnson et al. 2001). Two studies (Afifi et al. 2011; Johnson et al. 2001) reported no significant association with Cluster C PD (ORs = 1.1; 1.8) (Table 5.3).

Child Emotional Abuse

Epidemiological research exploring the association between emotional abuse and psychopathology in adulthood is scarce (Table 5.1).

Two studies (Chapman et al. 2004; Ritchie et al. 2009) explored the association between emotional abuse and mood disorders. Ritchie et al. (2009) differentiated between 2 types of emotional abuse and indicated significant associations: verbal abuse (OR = 2.9) and humiliation (OR = 4.3). Chapman et al. (2004) explored the effects of insult or fear and controlled for gender, indicating an increased risk for both females and males: lifetime (ORs females 2.7; males 2.5) and 12-month (ORs F 3.1; M 3.3) disorders. Hovens et al. (2010) defined psychological abuse as being verbally abused, receiving undeserved punishment, being subordinated to siblings and being blackmailed. They reported on an increased risk for seldom (OR = 4.6), as well as frequent e (OR = 7.5) 12-months mood or anxiety disorders. A single report on the association of neglect with PDs (Afifi et al. 2011) indicated a significant increase of cluster A (OR = 1.3) and B (OR = 1.3), but not C (OR = 1.1) (Table 5.4).

Child Abuse and Psychopathology in Adulthood

We based this chapter on population based studies on the associations between child abuse and psychopathology in adulthood. The most consistent finding referred to the associations between CAs and lifetime mood disorders. A recent meta-analysis on the effects of child abuse indicated that across studies, physical abuse, emotional abuse and neglect lead to an increased risk for mood disorders (Norman et al. 2012; Lindert et al. 2014). According to our review, only few studies diverged from this pattern: 2 on CSA and 1 each on CPA and neglect. The studies which yielded negative outcomes following CSA were a retrospective study from Japan (Fujiwara and Kawakami 2011) and a prospective study from the USA (Spatz-Widom et al. 2007), a retrospective study from Israel on CPA (Gal et al. 2011) and a retrospective study from France on the associations with neglect (Ritchie et al. 2009). The Japanese study (Fujiwara and Kawakami 2011) reported on a very low rate of CSA, suggesting that the study did not have sufficient power to obtain significant results. However, the point estimation (i.e., the OR) itself was also very low representing only 30.0 % increase. The Israeli study (Gal et al. 2011) shares some common facts with the former Japanese study: they are both part of the World Mental Health Survey (WMHS) and are single reports from these countries. The rate of reported CPA in the Israeli study was relatively low (3.0 %) and

Table 5.4 Associations between emotional abuse and psychopathology in adulthood

Authors	Study name, country, year	Study population: N, sex, age	design	Assessment method	Exposure age	Type of outcome	Outcome measure AOR	Covariates
Afifi et al. (2011)	National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) USA 2004–2005	N = 34,653 F/M NA, ages 20+	R	Alcohol Use Disorder and Associated Disabilities Interview Schedule-Diagnostic and Statistical Manual of Mental Disorders-Fourth Edition (AUDADIS-IV)		Axis II: personality disorders	Cluster A : 1.33 (1.01–1.74); Cluster B: 1.29 (1.03–1.61); Cluster C 1.08 (0.85–1.37)	General household dysfunction, age, gender, household income, education, marital status, ethnicity
Chapman et al. (2004)	Adverse Childhood Experiences (ACE) Study, USA 1995–1996	N = 9,460, 5,108 females, 4,352 males Mean age 56.6	R	Mailed questionnaire, ACE	<18	Axis I: MDD	**Female:** Lifetime: 2.7 (2.3–3.2); Recent: 3.1 (2.6–3.8) **Male:** Lifetime: 2.5 (1.9–3.2); Recent: 3.3 (2.4–4.4)	NA
Hovens et al. (2010)	Netherlands Study of Depression and Anxiety (NESDA), The Netherlands 2004–2007	N = 2,981, 1,967 F, 1,014 M Mean age 41	R	Face-to-face interview CIDI	<16	Axis I: depression and anxiety	12-month seldom depression and anxiety 4.59 (3.06–6.89) 12-month frequent depression and anxiety 7.50 (4.50–12.5)	Age, sex, education

Ritchie et al. (2011)	ESPRIT study of late-life psychiatric disorder, France 1999–2001	N = 942 Age 65 and over	R	Face-to-face interview Mini International Neuropsychiatric Interview (MINI)	18	Axis I: depression	Depression verbal abuse 2.90 (1.57–5.38); Humiliation 4.31 (1.87–9.93)	Age, gender, education, marital status, hypertension and recent life event

NA data not available, *CIDI* Composite International Diagnostic Interview; *MDD* Major depressive disorder, *GAD* generalized anxiety disorder, *PD* personality disorder, *PTSD* post traumatic stress disorder. *OCD* obsessive compulsive disorder, *AOR* adjusted odds ratio, CI = 95.0 % confidence interval although the point estimation indicated an elevated risk, the variability was too high to reach significance. It is more difficult to explain the lack of findings of Spatz-Widom et al. (2007) with regard to CSA since they did show significant increase following CPA and neglect. This negative finding could not be attributed to lack of power, since power was sufficient to yield a significant association with PTSD (Widom 1999). The French study (Ritchie et al. 2009) sampled an aged population of 65+ years and found no association between sexual and physical abuse, which both showed a very low rate. This same study indicated no association with childhood neglect, maybe due to the fact that it focused on late life psychopathology, while the outcome is more probable to appear earlier in life (Table 5.5).

In addition, the studies using AEs combinations arrive to the same conclusion, although not as definitively as those tat addresed each type of abuse separately. However, the larger variability of findings should be considered. One explanation of the heterogeneity of these findings is that it is not clear which adverse events (AEs) was included in the combination of some of the studies. Samples of interviewees reporting several CA exposures are more heterogeneous. However, the additive effect of CAs consistently indicates that subjects with a greater variety of maltreatment history are at greater risk for mood disorders.

A different picture is revealed when the effects on 12-months mood disorders are considered. Here, for most CAs the associations are not consistent and it is difficult to determine the nature of the association. For example, with regard to CSA 4 out of 5 studies did not indicate significant associations. It is possible that since, by definition less cases are defined with current compared to lifetime disorders, the number of diagnosed cases is small. Indeed, the only study that did observe significant findings (Hovens et al. 2010) lumped together mood and anxiety disorders and by that increased the number of the diagnosed sample. A similar pattern was observed with regard to CPA. Interestingly, a more consistent association was reported with regard to emotional abuse and neglect, but the number of studies is much smaller compared to CSA and CPA and that precludes drawing firm conclusions.

Anxiety Disorders

Lindert et al. (2014) and Norman et al. (2012) have indicated elevated risk of lifetime anxiety disorders following CPA and emotional abuse, but not neglect. According to the meta-analysis and the review of the associations with CSA ranged from an increase of 90–130 %, CPA studies showed a more consistent range of 60–170.0 %. However, only one study tested anxiety disorders following neglect, and no reports on emotional abuse were found. Only 2 studies on the associations between any of the CAs and current anxiety disorders were found and therefore it would be difficult to draw conclusions from the literature.

Further complexity was seen when specific types of anxiety disorders were considered. This was seen mainly with regard to CSA (8 studies), and to a lesser

Table 5.5 Associations between combined forms of abuse and psychopathology in adulthood

Covariates	Outcome measure AOR (CI)	Type of outcome	Exposure age	Types of abuse	Assessment method	Design	Study population: N, sex, age	Study name, country, year	Authors
Marital status, income, education, ethnicity	**Females: 1 AEs** Mood disorder 1.83 (1.44–2.33); Anxiety 1.61 (1.26–2.07) **3+ AEs** Mood Disorder 4.17 (2.61, 6.69); Anxiety 3.99 (2.52, 6.31) **Males: 1 AEs** Mood disorder 2.62 (1.86, 3.70); Anxiety 2.20 (1.52, 3.17) **3+ AEs** Mood Disorder 3.03 (NS); Anxiety 8.30 (2.56, 26.91)	Mood disorder, anxiety	<16	CSA, CPA and domestic violence	Face-to-face interview CIDI	R	N = 5,692	US National Comorbidity Survey Replication (NCS-R), 2001–2003	Afifi et al. (2008)
Age, sex, race, and educational attainment	Depression: 1 AEs 1.3 (1.2–1.5); 4+ AEs 3.6 (3.2–4.0) Anxiety: 1 AEs 1.2 (1.1–1.4); 4+ AEs and above 2.4 (2.1–2.8)	Axis I: depression, anxiety	<18	Sexual, physical, and emotional abuse. other child adversities: domestic violence, substance use, etc.	ACE questionnaire by mail	R	N = 17,337 9,367 females, 7,970 males Mean age 57	Adverse Childhood Experiences (ACE) Study, USA 1995–1997	Anda et al. (2006)

(continued)

Table 5.5 (continued)

Covariates	Outcome measure AOR (CI)	Type of outcome	Exposure age	Types of abuse	Assessment method	Design	Study population: N, sex, age	Study name, country, year	Authors
NA	**Female: 1 AEs** Lifetime MDD 1.3 (1.1–1.5); Recent MDD 1.4 (1.1–1.8) **5+ AEs** Lifetime MDD 3.7 (2.7–5.0) Recent MDD 4.4 (3.2–6.1) **Male: 1 AEs** Lifetime MDD 1.3 (1.1–1.6); Recent MDD: 1.4 (1.1–1.8) **5+ AEs** Lifetime MDD 1.7 (1.1–2.8) Recent MDD 1.8 (1.1–3.3)	Axis I: MDD	<18	Sexual, physical, and Emotional abuse. Other child adversities: domestic violence, substance use, etc.	Mailed questionnaire, ACE	R	N = 9,460, 5,108 females, 4,352 males Mean age 56.6	Adverse Childhood Experiences (ACE) Study, USA 1995–1996	Chapman et al. (2004)
Age of disorder onset	**2 CAs** MDD: 1.1 (0.6–2.2) Anxiety: 3.7 (1.8–7.5) **4 CAs** MDD: 1.5 (0.4–6.7) Anxiety: 5.8 (1.0–32.6)	Axis I: MDD, anxiety	<18	Family violence, CSA, CPA, neglect	Face-to-face interview CIDI	R	N = 1,722 850 F 827 M Mean age 50	World Mental Health Survey (WMHS) Japan, 2002–2004	Fujiwara and Kawakami (2011)

Gender, age of marital status, religious observance, traumatic life events	Lifetime mood childhood 1.66 (1.15–2.41); 12-month mood childhood: 0.91 (0.45–1.82); Lifetime mood adolescence 1.33 (0.69–2.58); 12-month mood adolescence 1.47 (0.66–3.25) Lifetime anxiety childhood: 1.59 (0.89–2.84); 12-month anxiety childhood : 1.84 (1.04–3.24); Lifetime anxiety adolescence 0.98 (0.36–2.68); 12-month anxiety adolescence 0.57 (0.13–2.41)	Axis I: mood, anxiety	<18	CSA and CPA	Face-to-face interview CIDI	R	N = 3,978 2,023 females, 1,955 males Mean age 47	World Mental Health Survey, Israel 2003–2004	Gal et al. (2011)
Gender, type of abuse	MDD-2.5 (1.9–3.4); Anxiety- 1.9 (1.5–2.2) **Females:** MDD- 3.3; Any anxiety disorder 2.1; **Males**: MDD- 1.5;	Axis I: lifetime disorders Any anxiety disorder, major depressive disorder, any psychiatric disorder	NA	CSA and CPA	Face-to-face interview CIDI	R	N = 7,016 3,678 female, 3,338 male Ages 15–64	Ontario Health Survey-Mental Health Supplement Canada 1990–1991	MacMillan et al. (2001)

(continued)

Table 5.5 (continued)

Covariates	Outcome measure AOR (CI)	Type of outcome	Exposure age	Types of abuse	Assessment method	Design	Study population: N, sex, age	Study name, country, year	Authors
	Any anxiety disorder- 1.6								
Gender	MDD: 1.6 (0.73–3.53)	Axis I: MDD	<15	CPA emotional abuse	Face-to-face interview Diagnostic Interview Schedule (DIS)	P + R	N = 354, 184female, 170 male. Age: 26	Data from a Reinherz et al. (2003)	community-based study
USA 1998									
Age, gender, education, marital status, hypertension and recent life event	Depression 2.67 (0.90–7.90)	Axis I: depression	18	Combined CPA and CSA,	Face-to-face interview Mini International Neuropsychiatric Interview (MINI)	R	N = Age 65 and over	ESPRIT study of late-life psychiatric disorder France 1999–2001	Ritchie et al. (2009)
Gender, ethnicity	Lifetime MDD 1.27 (0.96–1.67) 12-months MDD 1.51 (1.06–2.14)	Axis I: lifetime Major Depressive Disorder, current MDD	<12	Abuse or neglect	Mental Health Diagnostic Interview Schedule	P	N = 1,196. 583 F, 613 M Mean age: 28.7	USA 1989–1995	Spatz Widom et al. 2007

AEs adverse experience, *NA* data not available, *CIDI* Composite International Diagnostic Interview, *MDD* Major depressive disorder, *GAD* generalized anxiety disorder *PD* personality disorder, *PTSD* post traumatic stress disorder, *OCD* obsessive compulsive disorder, *AOR* adjusted odds ratio, CI = 95.0 % confidence interval, *CSA* child sexual abuse, *CPA* child physical abuse degree following CPA (2 studies). Relatively consistent findings were observed with regard to increased risk for PTSD and panic disorders, while the findings on GAD, social phobia, obsessive compulsive disorder (OCD) and panic attack were either scarce or inconsistent. Thus it would be difficult to draw conclusions with regard to specific composition of anxiety disorders which show elevated risk following CAs.

Personality Disorders

We identified 4 studies exploring the outcome of PDs, representing Axis II diagnoses, personality disorders (PD). The results widely differed between these studies, suggesting that the outcomes were not consistent across specific CAs. Afifi et al. (2011) have indicated that the risk for cluster B PDs was consistently elevated following CSA, CPA, emotional abuse and neglect. The findings were associated mainly with specific increase of borderline, antisocial and to a lesser degree narcissistic PDs. However, Moran et al. (2011) reported an increased risk of cluster B PDs only if repeated exposure to CSA was reported. The 2 other studies on neglect found no associations with cluster B PDs (Cohen et al. 2001; Johnson et al. 2001). This inconsistent pattern may be explained by the relatively large sample (N = 34,653) used by Afifi et al. (2011) which could enable the power to yield the associations between relatively infrequent events. Alternatively they could suggest a cohort effect in this report (Afifi et al. 2011). Associations with cluster A PDs were reported by 3 studies following CSA (Afifi et al. 2011; Moran et al. 2011) and neglect (Johnson et al. 2001), but not following CPA (Afifi et al. 2011) as well as the other studies on neglect (Afifi et al. 2011; Cohen et al. 2001). Thus the pattern of findings does not allow drawing conclusions. A significant association with cluster C PDs was reported by one study following repeated exposure to CSA (Moran et al. 2011), but not in all other studies exploring the associations between any type of CA and this cluster of PDs.

Gender Differences in Outcomes

Some of the studies differentiated between females and male outcomes following CAs. The findings were inconsistent. A review on the associations between gender and psychiatric outcomes following CSA, CPA and neglect has concluded that the associations among adult samples are complex (Gershon et al. 2008).

While Gershon et al. (2008) concluded that adult samples either show greater risk in females than males, or that there are no gender differences, our findings point to a different conclusion. Thus, according to studies reported here males after exposure to CSA and CPA are at greater risk for both, mood and anxiety disorders, compared to females. Similarly, such findings were reported on mood disorders following either CSA (Dinwiddie et al. 2000) or CPA (Afifi et al. 2008), anxiety and social anxiety following CPA (Afifi et al. 2008; Cougle et al. 2010), and anxiety following CSA or CPA (Gal et al. 2011). Taken together the current data are heterogeneous and need further careful investigation.

Theoretical Considerations

The studies reviewed here provide evidence of a dose–response relationship between child maltreatment and psychopathology, such that those experiencing more CAs were at greater risk of developing mental disorders than those experiencing lesser maltreatment (Chapman et al. 2004; Green et al. 2010; Moran et al. 2011; Perez-Fuentes et al. 2012). However, it is important to note that while some of the studies reported on the accumulating effects of similar AEs (e.g., CSA), other have reported on sum of events which could be different in nature (e.g., parental death or divorce). With regard to the former, Perez-Fuentes et al. (2012) have clearly indicated that an increase of exposure to CSA is associated with an increased risk for mood from OR of 2.8 following a single event to 4.2 following 4 events, and anxiety from 2.7 to 5.2. The study of Moran et al. (2011) has shown same pattern of increased risk on PDs.

Consistent dose–response relationships with repeated types of AEs have been reported for mood (Afifi et al. 2008; Anda et al. 2006; Chapman et al. 2004; Green et al. 2010) and anxiety (Afifi et al. 2008; Anda et al. 2006; Fujiwara and Kawakami 2011; Green et al. 2010) disorders. Interestingly, 2 studies have indicated that that the addition of CAs becomes less significant with the increase of CAs (Green et al. 2010; Kessler et al. 2010). This has an important implication for intervention. It means that prevention or amelioration of a single type of AEs among individuals exposed to many is probably not enough to yield a positive outcome. Thus, early intervention to reduce all types of maltreatment should be carried out in order to significantly reduce the negative outcomes of such AEs.

While most studies focused on the severity or frequency of AEs, Hovens et al. (2010) have enquired on the severity of the outcome. Since psychopathology in community samples is mostly reported in binary terms of present/not present it is not possible to identify cases on the basis of the severity of mental health outcomes (Table 5.4).

Outlook

Both prospective and retrospective studies were invetigated for the association between exposure to child adversities and psychiatric outcomes. The availability of prospective studies could provide conclusive evidence of a temporal relationship between exposure to child maltreatment and the later development of mental health outcomes. However, only 5 studies were prospective, and 2 additional studies had both prospective and retrospective directionality. Thus, the majority of the studies were cross-sectional and relied on adult retrospective report of abuse and neglect in childhood. By definition, these studies cannot prove a temporal relationship between exposure to child maltreatment and the onset of health outcomes.

Furthermore, retrospective, self-reported information regarding AEs may be subject to recall bias. In many cases participants were asked to report on events that occurred many years before, and the issue of potentially unreliable recall threatens the validity of the published literature on child maltreatment. At least with respect to child sexual abuse, Kendler et al. (2000) noted that it is unlikely that people reporting symptoms are more prone to report other events when the latter refers to a highly undesirable experience. In addition, it has been suggested that biases are probably towards under-reporting rather than over-reporting of abuse (Maughan and Rutter 1997). If the latter proposition is correct then the results probably underestimated the true association with regard to the overall rates (Fergusson et al. 2000).

Conclusion

This overview of the evidence suggests a strong and reliable relationship between CAs and psychopathology in adulthood. There is also emerging evidence that neglect and emotional abuse in childhood may be as harmful as sexual and physical abuse. While such conclusions have been drawn before from single empirical studies, the current chapter demonstrates more communal and replicable effects.

This review contributes to a better understanding and measurement of mental health impact of child maltreatment. All forms of child maltreatment should be considered as part of the cluster of interpersonal violence risk factors in global risk assessments for adult mental health.

Attributable burden is likely to be substantial, given the high prevalence of CAs, the strong associations indicated in our review, and the fact that the mental health outcomes are relatively frequent and among the leading causes of disease burden globally. Despite the magnitude of the problem and increasing awareness of its high social costs, preventing child maltreatment is not a political priority in most countries. It is imperative that public health studies will find their proper place leading national and international efforts to understand and prevent all variants of child maltreatment.

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Chapter 6
Corporal Punishment and Children's Mental Health: Opportunities for Prevention

Lawrence Wissow

Introduction

Many genetic, epigenetic, and environmental factors play a role in children's emotional and cognitive development. The social environment into which children are born interacts with these other factors, and helps determine critical mental processes including the ability to regulate emotional states, the ability to maintain the body's internal systems in the face of stressors, and the ability to effectively take part in interpersonal relationships (Repetti et al. 2002). Children take in much of this social environment through observation and participation, but they also experience it through formal teaching and their parent's or parental surrogates to discipline.

In its broadest sense, discipline involves the processes by which parents or surrogates help children acquire knowledge of the values and normative behaviours of the society in which they will function as adults. This is very positive. Along with this knowledge comes the ability to self-regulate and maintain behaviour within the scope of those values and norms (Cherlin 1996). In this broad definition, the discipline process includes explicit teaching, modelling, coaching, and consequences (both positive and negative) designed to shape the child's behaviour (Committee on Psychosocial Aspects of Child and Family Health 1998).

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In common parlance, however, the term “child discipline” is synonymous with punishment, either emotional, physical, or a combination of the two. The United Nations Committee on the Rights of the Child (2007) defined physical (or “corporal”) punishment of children as *any punishment in which physical force is used and intended to cause some degree of pain or discomfort, however light*. The Committee included in this definition hitting children with the hand or an implement, but also other forms of inflicting pain and discomfort, such as shaking, biting, hair pulling, or forcing children to eat or mouth bad-tasting materials. The committee felt that all of these forms of punishment were inherently degrading, and therefore, by extension, put physical punishment in the same class as non-physical punishments that humiliated, threatened, intentionally frightened, or denigrated a child.

The use of physical punishment as a central tool for shaping child development has a very long history in many civilizations, and is condoned or recommended in many pre-Biblical and Biblical sources within Judean-Christian tradition (Pinker 2011: 429). In European culture, by the seventeenth century, views of children as being either inherently evil, imminently corruptible, or in need of toughening, gave way in part to beliefs that children were inherently good and should be sheltered and positively nurtured. By the late nineteenth century, movements emerged to protect children from hard labour and outright abuse. Despite an expanding consensus among international bodies and professional groups that physical punishment of children does not have a role in child discipline (Gershoff and Bitensky 2007), it continues to be supported and practiced by many parents and begins early in childhood (Gallup Organization 1995; Orpinas 1999; Zolotor et al. 2011; Taylor et al. 2010).

Internationally, the proportion of adults who say they approve of physically punishing children has been trending down in the last 50–60 years, with increasing differentiation between acceptable “mild” physical punishment and more severe and unacceptable forms of violence (Pinker 2011: 439). There has also been an increasing differentiation made between the prerogatives of parents or surrogates use physical punishment with their own children and the inappropriateness of physical punishment by other caretakers such as teachers or correctional officials. For example, currently 31 of the 50 US states, plus the District of Columbia, have standing laws or regulations banning the use of physical punishment in schools (Centre for Effective Discipline 2012). In contrast, a national survey of US school administrators published in 1984 found that 74.0 % (84.0 % in elementary schools) reported the use of physical punishment in their institutions (Rose 1984). At that point in time, in the state of Florida, where central records of paddling were kept, just over 10.0 % of the state’s 1.5 million public school students were said to have been paddled at least once during the 1983–1984 academic year (Maeroff 1985). Unfortunately, this is not so case in some European countries, e.g. in the UK and in Eastern European countries?

Why Try to Reduce the Use of Physical Punishment?

At least 1 motivation for reducing the use of physical punishment is independent of evidence that the practice is itself harmful to children. That argument, among those advanced by international bodies, is that children, like adults, have a right to be protected from all forms of violence (Committee on the Rights of the Child 2011). Permitting physical punishment is inconsistent with this right, even within the protected space of parental rights to raise their children as they see fit.

Following on this line of reasoning, one might also advise against physical punishment if it seemed to be no more effective than other approaches to child discipline. While physical punishment does, in fact, effectively reduce the short-term incidence of target behaviours (Patterson 1982), it seems to do a poor job of helping children internalize the interpersonal values underlying those behaviours (Gershoff 2002), and, at least for young children, may not be any more effective than methods that do not involve inflicting pain (Roberts and Powers 1990).

Despite some inconsistencies in findings, adverse outcomes associated with physical punishment have been demonstrated in many cultures, although data do come mostly from higher resource countries (for a meta-analysis see Gershoff 2002). Some of these adverse outcomes include increased aggression toward child peers (Weiss et al. 1992), increased externalizing behaviours generally (including aggression and delinquency) (Edwards et al. 2010), increased prevalence of mood problems later in life (Turner and Muller 2004), greater physiologic markers of stress (Bugental et al. 2003), and impaired cognitive development (Smith and Brooks-Gunn 1997; Berlin et al. 2009). At least when using externalizing behaviour as an outcome, there appears to be linear relationship between the frequency of use of physical discipline and the subsequent severity of child problems (Edwards et al. 2010). That is, if there is a threshold under which physical discipline is not linked to increase externalizing behaviour, it is at a relatively low level.

Other studies have suggested that use of physical punishment in childhood underlies intergenerational transmission of norms that condone interpersonal violence (Fry 1993). Studies across several cultures suggest that there is a correlation between the prevalence of use of physical punishment for children in a society and greater prevalence and acceptance of violence in the society overall (Lansford and Dodge 2008). Thus, it is posited, children who are physically punished grow up not only more likely to use physical punishment with their own children but to tolerate interpersonal violence of other kinds between adults and children and among adults.

Another argument against the use of physical punishment is that, if administered at a time when parents are angry, there is a risk of its escalation to more physically-harmful levels of violence. Although as a group parents or surrogates who spank their children do seem to be at a higher risk of also being physically abusive, this risk may be much greater among those who administer physical punishment with an object than among those who administer punishment with only their hand (Zolotor et al. 2011).

Physical Punishment and Confounding Factors

One of the major rebuttals to these findings of negative outcomes is that studies fail to control adequately for the context in which physical punishment has been delivered. Punishment may be given in the context of a warm environment or one that is harsh in other ways, and it may be seen as normative or unusual by the child, parent or surrogate, or both (Larzelere 1996; Socolar 1997). One longitudinal study conducted in the USA (Gunnoe and Mariner 1997) found that spankings were associated with children's aggressive behaviour in some families but not in others. The study examined children ages 4–11 years, and found overall no significant relationship between being spanked and subsequent aggressive behaviour. However, 2 subgroups of children, African-American girls and White boys, had opposite associations between spanking and behaviour: among the girls, spanking was associated with decreased aggression, while for boys aggression was increased. The authors concluded that depending on culture and gender, children may perceive physical punishment as more or less legitimate, and respond accordingly. In contrast, a retrospective study of US university students did not find that perceived norms about the use of physical punishment did not moderate the relationship between experiencing it and subsequent symptoms of depression (Turner and Muller 2004).

If overall parenting context does play a role in the sequelae of physical punishment, one mechanism may be Rohner et al. "parental acceptance-rejection theory," which posits that corporal punishment exerts its long-term negative effects by adding a hostile dimension to parental rejection of children (Rohner et al. 1996). Rohner et al. studies find, across cultures, a strong impact of parental rejection on subsequent child development, the most strongly supported being a personality profile that includes increased hostility and negativity, decreased self-esteem and self-adequacy, emotional instability, and dependence (Rohner and Britner 2002). Thus, one could propose, if most physical punishment were delivered in the context of nurturing parental relationships, overall it might have few adverse effects.

One study, conducted in the USA, attempted to look at the context of physical punishment in a national sample of parents of children younger than 3 years of age (Wissow 2001). About 40.0 % of the sample of some 2,000 parents said that they had spanked their child at least once, and over 80.0 % said that they played with and hugged or cuddled their children daily or more frequently. When the parents were grouped, using the statistical procedure known as "cluster analysis", those who spanked the most (a group in which 93.0 % of the parents said they had spanked their child at least once) were most likely to say that they were frustrated with their child once or more a day, most likely to say that they sometimes or often yelled at their child, and least likely to read to their child (only 3.0 % said they did so). The group with the second highest use of spanking (78.0 % said they had done so at least once) included the parents who were most likely (93.0 %) experiencing symptoms of depression. These 2 groups made up about 38.0 % of the population of parents who spanked; thus, while much physical punishment of young children may take place in relatively neutral or nurturing contexts, a substantial minority of parents who spank may do so in a context marked by other adverse patterns of parent-child interaction.

Genetic variation may also have an impact on how children respond to physical punishment. One focus of investigation has been on the monoamine oxidase gene located on the X chromosome. Variations in the number of nucleotide repeats in the promoter region of this gene have been related to variation in gene expression. In one longitudinal study of boys recruited at registration for kindergarten, having a low-expression variation of the promoter region was not related to the risk of being exposed to physical punishment, but was associated with an increased risk of developing delinquent behaviour if the child was physically punished (Edwards et al. 2010). Exposure to physical punishment increased the risk of delinquent behaviour for boys with and without the variant, but the effect was much stronger among boys with the low-expression variation. In the population studied, which had been intended to represent a range of socio-economic backgrounds and was relatively diverse ethnically, about 30.0 % of boys had the low-expression gene variant. Thus, if gene-environment interactions exacerbate the adverse effects of physical punishment, the impact could be important at a population level.

Approaches to Preventing the Use of Physical Punishment

Ideally, approaches to preventing the use of physical punishment should be based on theory and data about the factors that lead parents or surrogates to its use. Bell and Romano (2012), based on Canadian data, propose an ecologic framework – social norms, stresses and supports in the parents' immediate social network, and the parent's own experience of physical punishment as a child – contributing to the use of physical punishment. While there is evidence (Woodward and Fergusson 2002) that physical punishment in childhood and problematic parent-child relationships promote adults adopting the use of physical punishment once they are themselves parents, those parents may not necessarily endorse its use or oppose policies that seek to reduce it. Many parents who use physical punishment say that they would like to avoid doing so and are saying they are open to learning about viable alternatives, if this can be done in a non-threatening way (Wissow and Roter 1994). In contrast, if a parent's experiences as a child were that their own physical punishment was delivered by a parent who was overall warm, and if there was not humiliation or threat at the time of punishment, then the parent may be more favourable to its use by others. In Bell and Romano's study of Canadian university students, those who were spanked but not exposed to other violence as children were more likely to oppose changing a Canadian law that is permissive of physical punishment of children ages 2–12 years old.

Population-based approaches: national legislation has been enacted in a number of countries around the world to remove exceptions to criminal assault laws that protected parents' use of physical punishment and to specifically prohibit the practice in schools or universally (Gershoff and Bitensky 2007). Legislation appears to be an important component of efforts to reduce the acceptability of physical punishment, although it may influence attitudes and practices not so much through enforcement efforts, but rather as a component of broadly-based efforts to develop new social norms toward child rearing in general and disciplinary practices in particular (Durrant 2003). The impact of laws prohibiting physical punishment may be directly proportional to the percentage of parents of young children who know about the law and who have access to information about alternative methods of discipline (Durrant 2003; Gershoff and Bitensky 2007).

The "Triple-P" program, developed in Australia but implemented in several countries, operates in its full form at 5 levels ranging from information directed to the general population to a choice of intensive interventions targeting individual families, 2 of which target parents at particular risk of using physical punishment (Sanders 2012). Triple-P promotes and teaches a set of core parenting skills with a strong evidence base for the effectiveness in both controlling child behaviour and also promoting healthy psychosocial development. It thus offers families alternatives to the use of physical punishment and helps to develop social norms that re-enforce the acceptability of those alternatives.

Impact of early childhood education and family support: A randomized trial of the national "Early Head Start" program in the USA found that participating parents had a small but significantly lower (47.0 % versus 54.0 %) likelihood of reporting that they had spanked their child in the week before program outcomes were measured (Love et al. 2005). Early Head Start enrols parents of infants and toddlers and serves them until the child is age 3, at which point they are eligible for pre-school programs. The program includes child care, but also may involve home visits, parenting education, health care and referrals, and other forms of family support; implementation varies by site. The trial found that the impact on physical punishment (as well as many other outcomes) was largest at sites that used a mix of centre and home-based services, rather than just one or the other.

Individual/clinical interventions: A number of parenting programs have demonstrated the potential to reduce the use of aversive parenting approaches as well as increasing the use of positive approaches (see Gershoff (2002) for a review). Bugental and Schwartz (2009) developed a program that targeted at-risk families, some with difficult-to-parent infants. The program was based on shifting parents' cognitive appraisal of children's behaviour and the parents' own difficulties mastering the situation. Parents were helped both to analyse situations in which problematic child behaviour occurred and to find ways to cope with the behaviour and its associated stress. Compared to a "treatment as usual" home visiting intervention, the appraisal-based approach, when added to home visiting, resulted in a reduced rate of parents' use of physical punishment.

In a program targeting families in which a child had developed conduct problems early in life, Beauchaine et al. (2005) found that parents were able to reduce their use of harsh and/or ineffective parenting practices. These reductions were then linked to better child behaviour. Although, on average, parenting improved across participants, parents who benefited most were those who were, relative to the group, those who used relatively little harsh punishment at baseline.

Interventions in primary care: Children's primary medical care offers a possible venue for the primary or secondary prevention of the use of physical punishment. As noted above, parents' attitudes toward child discipline are likely forming prior to childbirth, and the use of physical punishment often begins in the child's first years of life. In many countries, children are seen frequently and routinely for health maintenance services. Studies suggest that primary care providers themselves (Scholer et al. 2010) or trained nurses placed in primary care practices (Kolko et al. 2010) may be able to have an impact on parent attitudes toward discipline practices and on the levels of child behaviour problems. However, primary care practices may have to reorganize to be able to provide the time, privacy, and expertise required to successfully engage and counsel parents about child discipline (López Stewart et al. 2000).

Conclusion

Many parents continue to have positive attitudes toward the use of physical punishment. Parents' own experiences as children, their mood and sense of stress as adults and prevailing social norms all influence the likelihood that they will use physical punishment with their own children. A number of arguments can be advanced for reducing the use of physical punishment; some are based on views of the rights of children, some are based on the evidence for adverse psychosocial outcomes, and some on the role that physical punishment may play in the overall level of violence in a given society. Studies suggest that the use of physical punishment in a given society can be reduced through broad efforts to change normative parenting behaviours; parenting training of various kinds seems capable of reducing the use of harsh punishment, and offers parents the opportunity to learn techniques that are not only less coercive but that seem to be associated with long-term psychosocial benefit.

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Chapter 7
Mental Health Consequences of Violence Against Women

Jane Fisher and Meena Cabral de Mello

Introduction

Interpersonal violence occurs in both domestic and community situations, and includes acts of violence between people who are known to each other in families (domestic violence) or who are not related to each other (community violence). Domestic and community violence are transgressions of human rights. The World Health Organization defines domestic and community violence as intentional acts which might result in death and/or physical and psychological injuries and are always a misuse of power (Krug et al. 2002).

The Declaration and Platform for Action of the Fourth World Conference on Women, Beijing, 1995, defined gender-based violence as acts that *(. . .) result in physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life* (United Nations Entity for Gender Equality and the Empowerment of Women 1995). The United Nations Declaration on the "Elimination of Violence Against Women" (United Nations 1993) defines any act of violence against women in their families, the general community or perpetrated by the state as gender-based violence.

Millions of lives of women are lost by suicide, homicide, war and terrorism each year (World Health Organization 2002); however, this only represents one element of the consequences of gender-based violence. There are enormous economic losses due to injuries, medical treatment, law enforcement and reduced work productivity,

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but one of the most serious consequences is the major adverse effects on the physical and mental health of the victims of violence (World Health Organization 2002). It is a public health concern across borders and observable in all nations (World Health Organization 2002). Women are more likely than men to be subjected to most forms of violence across the lifespan and some forms of violence only occur among women (World Health Organization 2002). Gender-based violence is a very well established risk factor for mental health problems including depression, post-traumatic stress disorder and suicidal behaviours among girls and women across the life span (Astbury and Cabral de Mello 2000), as illustrated in the following examples.

Gender-based violence occurs in all societies, but especially in cultures in which women have low status and their rights are not respected.

Female Foeticide

Violent transgressions of the human rights of females begin prior to birth. Since the early 1980s – when ultrasound technologies, which could be used to determine foetal sex were first available – selective abortion of female foetuses has increased. It occurs predominantly in countries with a strong culturally determined family preference for sons rather than daughters, including China, India, Korea and Pakistan (Miller 2001). It is regarded as one of the leading causes of ‘missing girls’ or disproportions of males to females in the population. In India, it has been established that female foetuses conceived in families, which already have 1 or 2 female children, are most at risk of female foeticide (Jha et al. 2006). In China, Attané (2009) found in an investigation of the country’s sex imbalance that the discriminatory practices of sex-selective abortion, and neglect leading to deaths of female babies, were the main contributors. These were related to responses to extreme poverty and pressure on couples to adhere to traditional values. In a case-control psychological autopsy study of young people who had committed suicide in a rural region of China, Zhang and Ma (2012) found adverse life events related to family relationships or health/hospital events in the previous year were apparent in the recent lives of at least half the women. Although the specific reasons were not investigated, young women who had committed suicide were significantly more likely than those in the control group to have had an abortion, possibly not as a matter of personal choice, in the previous year.

Childhood Abuse

One of the most common forms of violence experienced by girls is childhood abuse or maltreatment, which is defined by the WHO Consultation on Child Abuse Prevention as *all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in* *actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power* (World Health Organization 1999). Childhood abuse is generally considered in 4 classifications: physical abuse, psychological or emotional abuse, sexual abuse, and neglect (World Health Organization 2002). Witnessing interpersonal violence between adult caregivers is also regarded as additional form of child maltreatment (Gilbert et al. 2009).

The prevalence of child maltreatment differs considerably between and within countries (Krug et al. 2002). Different methods of ascertainment include self-report surveys of children who are old enough to describe their experiences, population–based surveys of parents about their use of harsh physical punishments, recalled abuse in surveys of adults, case reports and formal records of children referred to child protection authorities. These yield different estimates of the extent and severity of this problem (Gilbert et al. 2009; Krug et al. 2002). Official statistics are in general found to underestimate true prevalence, whereas self-reported data are considered to provide a more accurate indication, but are governed by the precision of sampling strategies used and the recruitment fractions achieved (Gilbert et al. 2009). In high-income countries it has been estimated that between 3.7 and 16.3 % of children experience severe physical abuse and up to 10.0 % neglect or emotional abuse annually. Between 5.0 and 10.0 % of girls (double the 5.0 % of boys) experience penetrative sexual abuse during childhood. In resource-constrained settings the situation is much worse. Data from the population-based World Studies of Abuse in the Family Environment (WorldSAFE) surveys conducted in Chile, Egypt, India and the Philippines suggested that 4.0–36.0 % of their children had experienced severe and 29.0–75.0 % moderate physical abuse in the form of harsh punishment (Krug et al. 2002) in the previous 6 months. In Africa, examinations of 30,510 students aged 13–15 years from schools in Namibia, Swaziland, Uganda, Zambia and Zimbabwe revealed that different proportions of students reported having experienced physical abuse, ranging from 27.0 % in Swaziland to 50.0 % in Namibia (Briere et al. 2009). The same high prevalence of physical abuse as in Namibia was recorded in a separate study in Viet Nam (Nguyen et al. 2010). Much of this abuse was the use of corporal punishments in schools and institutions. Although banned in some countries such as Israel, Sweden, Namibia, South Africa, Zimbabwe, Uganda, New Zealand, The Republic of Korea and Thailand, it remains legal in others (Krug et al. 2002).

Childhood prevalence rates of sexual abuse varies widely across, as well as within countries, depending on the definitions used (Krug et al. 2002), ranging from 15.0 to 30.0 % in population-based samples from Australia, New Zealand, Canada and the USA (Gilbert et al. 2009); to 33.0 % (both genders included) in Zambia (Brown et al. 2009). Females are more likely to report childhood sexual abuse than males in most of the world's regions, with prevalence ranging from 7.1 to 67.7 % in some South East Asia Regions (Andrews et al. 2004). Most studies have found an elevated risk of sexual abuse among girls, compared to boys (Brown et al. 2009; Gilbert et al. 2009; Krug et al. 2002). Different forms of childhood abuse and neglect of basic needs often co-occur and can become chronic with abuse being repeated (Gilbert et al. 2009). Children in institutional care are especially vulnerable to abuse.

Child maltreatment is multifactorial determined, not just by individual caregiver or family characteristics, but also by those of the local community and wider society (Krug et al. 2002). There is consistent evidence that younger children, born prematurely or with a low birth weight or a disability are more vulnerable to maltreatment, probably because their needs are higher (Gilbert et al. 2009; Krug et al. 2002). However, these associations become insignificant when factors related to their families and communities are taken into account (Krug et al. 2002). Parents who are in a low socioeconomic position, with limited education, who have mental health problems, abuse alcohol and illicit drug or were themselves poorly parented and exposed to childhood abuse are more likely than others to maltreat their children (Briere et al. 2009; Gilbert et al. 2009). Abuse of children is more prevalent in neighbourhoods characterised by high crime rates, low community cohesion, and poor informal social networks with low economic and social resources (Gilbert et al. 2009; Krug et al. 2002).

Childhood abuse is a transgression of the child's human rights, and causes death, serious life-threatening injuries, other physical health problems and long term adverse consequences for education and employment (Krug et al. 2002; Brown et al. 2009; Gilbert et al. 2009; Greenfield 2010). There is in addition, consistent evidence from retrospective and prospective studies that childhood abuse results in serious mental health problems among victims not only during childhood, but also into adulthood (Anda et al. 2006; Krug et al. 2002; Briere et al. 2009; Brown et al. 2009; Gilbert et al. 2009; Greenfield 2010; Nguyen et al. 2010). It is estimated that about 5.0 % of mental disorders are attributed to physical abuse after controlling for family characteristics, but this is more than doubled to 13.0 % following sexual abuse, to which girls are especially vulnerable (Fergusson et al. 2008).

Anxiety and depression are the 2 most common forms of mental disorder experienced by victims of childhood maltreatment (Briere et al. 2009). Symptoms meeting Diagnostic and Statistical Manual of Mental Disorders-IV criteria for major depression are observed in a very substantial proportion (about 30.0 %) of abused children before they reach the age of 30 (Gilbert et al. 2009). Odds of depression among adolescents and adults who were abused as minors are 30.0–140.0 % higher than in individuals who have not experienced abuse (Gilbert et al. 2009). Maltreated children, also suffer from long-lasting post-traumatic stress disorders (PTSD) (Briere et al. 2009; Gilbert et al. 2009; Greenfield 2010; Krug et al. 2002; Widom 1999). In a prospective investigation of abused children 17 years after their maltreatment, PTSD as assessed by Diagnostic and Statistical Manual of Mental Disorders-III criteria, was found among about 20.0 % of the victims, which was twice the proportion among non-abused controls (Widom 1999). Among the victims, PTSD was more common with more severe forms of maltreatment, ranging from 17.0 % among neglected children, to 23.0 % among those who had been sexually abused (Widom 1999).

Additionally, there is an elevated risk of suicidal behaviours associated with childhood maltreatment (Gilbert et al. 2009). Results from a population-based study in New Zealand revealed that while only 1.0–3.0 % of adolescents and young adults who had not been abused in childhood made suicide attempts, 11.0–21.0 % of their childhood abused counterparts did (Fergusson et al. 2008). Likewise, in a recent study of 8–18 year-old-children and adolescents in rural China there were increased odds of 1.69 for suicidal ideation and of 2.69 for suicide attempts among victims of sexual abuse, compared with non-sexually-abused participants after adjusting for age, education level, school type, parents' education attainment, and the family's socioeconomic status (Lin et al. 2011). Survivors of childhood maltreatment have been shown to be more likely to engage in risk-taking behaviours including alcohol or substance abuse than individuals who have not been abused (Briere et al. 2009; Gilbert et al. 2009; Krug et al. 2002).

There is also evidence of an association between child abuse and later psychological difficulties in capacities for self-regard and forming trusting relationships. These including chronically low sense of personal entitlement, tendency to self-blame, pessimism and expectations of rejection (Briere et al. 2009). There can be lasting difficulties in emotional regulation and tolerating ambivalence, especially in intimate relationships. Victims of childhood abuse can have impaired capability in appraising risk and danger, including making judgements about the risks posed to them by others and self-awareness is often limited (Briere et al. 2009).

It is difficult to elucidate the effects of any individual form of child maltreatment on victims' mental health, as it is more common to experience multiple rather than single forms of childhood abuse (Gilbert et al. 2009). However, current evidence supports the association between the more elevated risks of mental health-related problems and more severe forms as well as with multiple forms of maltreatment (Andrews et al. 2004; Fergusson et al. 2008). The most severe mental health symptoms and degree of disability have been associated with exposure to 4 or more types of child maltreatment, compared with exposure to fewer forms of child abuse (Finkelhor et al. 2007).

Sexual abuse is especially damaging to mental health. Girls who have experienced genital contact or sexual penetration, perpetrated by a family member or known caregiver (especially if it occurs repeatedly and over sustained periods) are at highly elevated risk of mental health problems including depression, anxiety, substance abuse and co-morbid occurrence of these conditions in adolescence and adulthood (Astbury and Cabral de Mello 2000; Finkelhor et al. 1990). Seriousness and chronicity of exposure to childhood sexual abuse and severity of mental health problems have a dose response relationship (Krug et al. 2002).

Female Genital Mutilation

Female genital mutilation (FGM) is defined by the World Health Organization as *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* (World Health Organization 2012).

There are 4 types of FGM: excision of the prepuce and part or all of the clitoris; removal of the clitoris and part or all of the labia minora, infibulation which is the excision of the female genitalia and the use of stitches or other techniques to close the wound leaving only a narrow opening for the flow of urine or menstrual blood and other harmful procedures for non-medical purposes, like pricking, piercing, incising, or placing herbs or caustic agents into the vagina (World Health Organization 2012). It is carried out at a range of ages from a few days after birth, at 8–10 years, prior to marriage or after the birth of a first child, depending on setting and local cultural beliefs and practices (Ball and Ball 2008; Ogunsiji et al. 2007; Utz-Billing and Kentenich 2008). Approximately 140 million girls and women alive today have experienced some form of this procedure and at least 2 million are at risk or are subjected to it each year; children are the most vulnerable (World Health Organization 2012). The practice is most common in the countries of sub-Saharan Africa, some in the Middle East including Egypt, Oman, Sudan and Yemen and in Indonesia and Malaysia (Ogunsiji et al. 2007; Utz-Billing and Kentenich 2008). Female genital mutilation is a public health concern, violating the human rights of girls and women and threatening their lives (World Health Organization 2012).

There are immediate, short and long-term adverse physical consequences of FGM including physical and mental health consequences. Physical consequences are bleeding, anaemia, severe pain, acute and chronic genito-urinary infections. Septicaemia and gangrene even death (Ogunsiji et al. 2007; Utz-Billing and Kentenich 2008). In 1994, Toubia (1994) reported clinical observations of chronic symptoms of the common mental disorders of depression and anxiety, in particular associated with gynaecological dysfunction. Young women, who want to conform to parental and societal expectations by complying with FGM, but who are thereby exposed to fear, pain, complicated recovery and possible long-term health problems experience psychological conflict. Their trust in family members may be seriously jeopardised (Baron and Denmark 2006). Lightfood-Klein and Shaw (1990) interviewed women and health care providers in Sudan, and found that anxiety was associated with obstructed menstrual flow and both anticipation of and actual experience of painful intercourse. Some women reported intensely traumatic memories of their first experience of sexual intercourse after marriage. Chalmers and Hashi (2000) interviewed 432 Somali women who had previously experienced genital cutting and were now living in Canada. Participants recalled intense fear, severe pain, and being seriously ill. In countries where genital cutting is not commonly practised or is illegal, women who have had FGM fear that the quality of obstetric care provided by health professionals may be compromised by their lack of experience (Lightfood-Klein and Shaw 1990; Vangen et al. 2004). Pelvic examinations may be experienced as humiliating or offensive especially if conducted by male practitioners.

In Senegal, 47 women from Dakar (half of whom had experienced FGM), completed semi-structured interviews about the events of circumcision and their reactions to it and structured psychiatric diagnostic interviews (Behrendt and

Moritz 2005). FGM had taken place between the ages of 5 and 14 years and, when interviewed, participants were aged 15–40 years. The events of circumcision were recalled as ‘appalling and traumatic’ by most and intrusive re-experiencing in the form of thoughts and images was almost universal. Overall, 80.0 % met current criteria for depression and anxiety and 30.4 % for posttraumatic stress disorders. In the non-circumcised group, only one person had symptoms of mood disorder and none had PTSD (Behrendt and Moritz 2005). Elnasha and Abdelhady (2007) surveyed 264 newly married women, 75.8 % of whom had been circumcised, in Benha, Egypt. Overall, 40 (20.0 %) of the circumcised group had been married by the age of 20, while none of the non-circumcised group had married in adolescence. The circumcised group had higher rates of somatisation, general anxiety and phobias than the non-circumcised group. In a descriptive review (Utz-Billing and Kentenich 2008) concluded that psychosomatic disorders such as sleeping difficulties, nightmares, excess eating or loss of appetite, weight loss or gain and concentration difficulties were common consequences of FGM.

Psychosexual functioning including sexual desire and sexual pleasure may also be adversely affected (Lewnes 2005). Women who have been infibulated may have difficulty having sexual intercourse, as a result of a narrowed introitus (Johansen 2002). Odoi et al. (1997), compared 76 women who had undergone FGM, with 119 who had not. All were attending hospital clinics in northern Ghana. They found that FGM was associated with a threefold increase in postcoital bleeding and a twelvefold increase in anorgasmia.

In settings where FGM is the norm, women who refuse to undergo the procedure may also experience adverse psychological consequences (Baron and Denmark 2006), including social exclusion, being regarded as unmarriageable and as having brought shame or dishonour to the family (Baron and Denmark 2006).

Trafficking for Sexual Exploitation

The United Nations defines human 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 having control over another person, for the purpose of exploitation. Exploitation [can]... include, prostitution or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs* (United Nations 2000).

Despite the methodological difficulties in establishing the magnitude of human tracking (Gajic-Veljanoski and Stewart 2007), it is estimated that about 0.6–0.8 million people, mostly girls and women, are trafficked trans-nationally each year for the primary purpose of sexual exploitation (United States of America: Department of State 2006). However, this figure only represents a small proportion of the potential total as millions of people are trafficked within their own countries (United States of America: Department of State 2006).

Victims of trafficking for sexual exploitation commonly experience multiple deceptions by traffickers (Gajic-Veljanoski and Stewart 2007; Zimmerman et al. 2008). Promises of employment and improved incomes are common and take advantage of women's potentially limited understanding of jobs they have not heard of, for example as 'nannies' or 'exotic dancers' (Gajic-Veljanoski and Stewart 2007; Zimmerman et al. 2008). Risk factors for becoming victims of tracking are poverty, unemployment and lack of awareness, which are increased among those who have received little education, are young or are in disadvantaged personal circumstances like being a single mother (Gajic-Veljanoski and Stewart 2007).

In a study conducted among 47 women trafficked for sexual purposes in Nepal, almost a third had experienced food instability, physical or sexual abuse or rape during their childhood and almost 1 in 5 had been homeless (Cwikel et al. 2004). Zimmerman et al. (2008) conducted a survey of 192 women who had accessed post-trafficking services in 7 European countries. They found an even higher prevalence: 59.0 % had experienced pre-trafficking exposure to abuse (Zimmerman et al. 2008). In some settings, prostitution is regarded by family members as an acceptable solution to poverty, and that there is status in sending a daughter or wife to a high-income country even if it is to be exploited (Aghatise 2004).

In addition to the risks imposed by sex work, multiple forms of violence are experienced during the trafficking period (Schloenhardt and Klug 2011). Psychological abuse in the forms of threats either against the woman or her family; extreme social isolation; severe physical violence including hitting, kicking, torturing and using weapons; and sexual violence are prominent among this population, being reported by more than 90.0 % (Cwikel et al. 2004; Hossain 2010; Zimmerman et al. 2008).

Working intensively for long hours most days of the week, including during menstruation, is common. About 70.0 % of the 47 trafficked sex workers who participated in Cwikel et al. study (2004) reported being forced to work every day and having to service at least 10 clients per day. Unsafe sex practices were widespread. While condoms are used during vaginal intercourse by most of the participants in Cwikel's study, a much smaller proportion (about 50.0 %) reported using this protection for oral sex (Cwikel et al. 2004). Clients' preferences in this situation are paramount (Schloenhardt and Klug 2011). Most of the women have poor living conditions and language difficulties and fear deportation if they approach local authorities for assistance (Gajic-Veljanoski and Stewart 2007; Schloenhardt and Klug 2011).

There are serious health consequences for women of being trafficked for sexual exploitation. Nearly two third of the 204 trafficked girls and women, who received care in 7 European post-trafficking sites in 2004–2005 in Hossain et al.'s study (2010), reported serious injuries. Unintended pregnancies, abortions and sexually transmitted diseases, including HIV/AIDS, were common (Beyrer 2001; Gajic-Veljanoski and Stewart 2007; Schloenhardt and Klug 2011). The problems were worsened further by having limited access to health care (Busza et al. 2004; Gajic-Veljanoski and Stewart 2007).

The mental health burden of sexual exploitation is profound. Anxiety, depression and post-traumatic stress disorders (PTSD) are among the most common mental disorders reported in research about trafficking victims (Cwikel et al. 2004; Gajic-Veljanoski and Stewart 2007; Hossain et al. 2010; Schloenhardt and Klug 2011; Zimmerman et al. 2008). In Hossain et al.'s study, 80.0 % of the participants were experiencing at least one of the common mental disorders of depression, anxiety and post-traumatic stress disorder and more than half had all 3 disorders (Hossain et al. 2010). Tsutsumi et al. (2008) investigated the prevalence and determinants of symptoms of depression, anxiety and posttraumatic stress disorder (PTSD) in female victim survivors of trafficking aged 15–44 in Kathmandu, Nepal, rates of depressive and PTSD symptoms were high in women forced into sex work. All had clinically significant depressive symptoms, 97.7 % anxiety symptoms and 29.5 % symptoms indicating PTSD.

Co-occurring alcohol and substance misuse among trafficked women are common (Ostrovschi et al. 2011). It is common for women in these circumstances to contemplate suicide as a means of escape. In Cwikel et al.'s study (2004), 47.0 % had suicidal ideas and 20.0 % had committed acts of self-harm at least once. Overall, female victims of trafficking have been shown to have more severe mental health problems than victims of other crimes (Clawson et al. 2003; Gajic-Veljanoski and Stewart 2007).

There are lasting adverse consequences for mental health, which do not improve spontaneously once the trafficking victim has returned to her country of origin. Using diagnostic psychiatric interviews, Ostrovschi et al. found that nearly 90.0 % of the 120 trafficked and sexually exploited Moldavian women, who had returned to Moldova, were psychologically distressed 1–5 days after arrival and more than half had a diagnosable mental disorder 2–12 months after return (Ostrovschi et al. 2011). The most common mental disorders were co-morbid PTSD and mood disorders (Ostrovschi et al. 2011).

Forced Marriage

Marriage without "full and free consent" or where duress involving physical, financial, or emotional violence, kidnapping, and threats to harm or kill are used to enact the marriage or to seek consent is regarded as a forced marriage (Chantler 2012). Forced marriage, therefore, is considered a form of gender- based violence (Chantler 2012; World Health Organization 2002).

In some South Asian and Middle Eastern countries forced marriage is common, often involving marriage among relatives and arranged marriages where the bride and the groom only meet each other after the wedding ceremony (Chaleby 1988). In some countries arrangements for marriage are made at or before the birth of the baby girls (Ouattara et al. 1998). It is estimated that in Niger up to a third of girls are married, usually without choice by the age of 15 years (United Nations Children's Fund 2012). Even where some form of consent is given by a young woman to an arranged marriage, it is not usual in most high-income settings for a person under the age of 18 to be regarded as sufficiently mature to give informed consent to a contractual commitment (Chantler 2012).

Child brides are deprived of educational opportunities (Ouattara et al. 1998). After marriage, girls, who often move to their husband's parents' household in this circumstance, occupy a very low social position, have a huge domestic workload and can experience criticism and hostility from their in-laws (Ouattara et al. 1998). Pregnancy during adolescence in these settings is risky because physical growth is not yet complete and maternal anaemia and malnutrition are common. Adolescent mothers are also at risk of stillbirth and injuries of the genital tract, including genitourinary and/or anorectal fistulae. These lead to urinary and faecal incontinence which, when untreated, can lead to social ostracization and marginalisation (Fisher et al. 2011). A study among 120 Nigerian women with genitourinary fistulae whose age ranged from 10 to 36 found that a large proportion were experiencing social exclusion and many were 'mentally depressed' (Kabir et al. 2003).

The psychological impact of forced marriage has not been investigated comprehensively, but young women in this circumstance experience multiple risks to mental health (Chantler 2012). Sexual intercourse in forced marriage is against the will of the woman, and is, therefore, a form of sexual gender-based violence (Ouattara et al. 1998). In Calcutta, India, for some victims of very early marriage (before age 15), sexual intercourse happened prior to menarche, recalled as horrifying even years afterwards (Ouattara et al. 1998; Sen 1997). Although half of these young women informed their partners of their unwillingness to have intercourse and told them that it was painful, for most, forced sexual intercourse continued.

Some girls attempt to escape from the forced marriage (Ouattara et al. 1998). If these women are found, they face risks of severe violence from their families (Ouattara et al. 1998).

Intimate Partner Violence

Intimate partner violence (IPV), which is defined as *behaviour within an intimate relationship that causes physical, sexual or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviours* (Krug et al. 2002) IPV is a serious public health problem, worldwide (World Health Organization/London School of Hygiene and Tropical Medicine 2010).

There is increasing evidence about the scope and extent of IPV. In a WHO Multi-Country study on IPV against women there were wide inter-country variations in lifetime prevalence of physical violence from current or ex-husbands or boyfriends: 13.0 % in Japan to 61.0 % in Peru, with most countries in the range 23.0–49.0 % (Garcia-Moreno et al. 2006). Co-occurrence of violence was widespread: 94.0 % of women experiencing physical violence also experienced verbal insults and humiliations and 36.0 % forced sex. More recent studies using comparable methods from resource-constrained countries have found even higher prevalence (Abeya et al. 2011; Zakar et al. 2012). Nearly 76.0 % of the total 373 married women aged 16–49 in Lahore and Sialkot in Pakistan, who participated in Zakar et al.'s study, reported being psychologically abused by their partner across their lifetime (Zakar et al. 2012).

Intimate Partner Violence is multifactorially determined including by cultural and social factors (Abeya et al. 2011; Dixon and Graham-Kevan 2011). Risk is higher among the poorest women, who have low educational attainments, live in rural rather than in urban areas, have been married by "abduction" (Abeya et al. 2011) as an adolescent, are in a polygamous marriage, or have witnessed IPV between their parents. IPV is most common in settings in which women are devalued and discriminated against and in those where strong gendered-role restrictions prevail (Abeya et al. 2011; Afifi 2009; Akmatov et al. 2008; Dixon and Graham-Kevan 2011; Oshiro et al. 2011; Raj et al. 2010; Santhya 2011; Speizer 2010; Speizer and Pearson 2011).

Not only are the victims' human rights transgressed, but their physical and mental health are seriously affected by IPV. Women experiencing IPV are more likely to have unintended pregnancies, to report poorer physical and reproductive health and to have elevated rates of sleeping and eating disorders and sexually transmitted diseases, including being HIV-positive (Jejeebhoy et al. 2010; Stephenson et al. 2006; Vizcarra et al. 2004; World Health Organization/London School of Hygiene and Tropical Medicine 2010; Zakar et al. 2012).

Mental health problems such as post-traumatic stress disorders (PTSD), depression, anxiety, suicidal behaviours and other emotional distress are more commonly experienced by female victims of IPV than their non-victim counterparts (Devries et al. 2011; Jejeebhoy et al. 2010; Ludermir et al. 2008; Vizcarra et al. 2004; World Health Organization/London School of Hygiene and Tropical Medicine 2010). A study conducted among 2,128 Brazilian women in the age range of 15–49 years found that the rates of symptoms of common mental disorders, as measured by the Self Reporting Questionnaire (SRQ-20), were more than twice as high among those exposed to IPV (physical, or psychological, or sexual abuse), than among those who had not been (Ludermir et al. 2008). For those who experienced all 3 forms of IPV, the risk was tripled: 62.9 % as opposed to 19.6 % (Ludermir et al. 2008). Pico-Alfonso et al. (2006) compared the mental health of 130 women recruited from a women's shelter with 50 recruited from community-based clubs and living in non-violent relationships. When the effects of lifetime victimisation were controlled, women who had experienced psychological abuse, with or without physical violence had a higher incidence and severity of depressive and anxiety symptoms, PTSD, and thoughts of suicide than women in the comparison group. Sexual violence in association with any other form of violence was associated with more severe depressive symptoms and suicidal behaviours. PTSD was rarely observed as the only psychological morbidity and most commonly co-occurred with depression and state anxiety (Pico-Alfonso et al. 2006). Increased risks of memory loss, sleeping difficulties and suicidal behaviours were also recorded in the WHO Multi-Country

Study on Domestic Violence Against Women (Ellsberg et al. 2008). Victims of IPV were at nearly 3 times higher risk of having suicidal thoughts and almost 4 times at higher risk of committing suicidal acts than their non-abused counterparts (Ellsberg et al. 2008). The risk of suicidal behaviours was elevated by exposure to IPV, even after controlling for the potential confounding factors of age, educational attainment, marital status, history of childhood abuse, witnessing IPV between their own parents, non-partner violence, alcohol abuse and family support (Devries et al. 2011).

A study conducted among 2,876 women sampled randomly from a health plan in the USA found increased proportions of women with severe depressive symptoms from the group who were not abused (6.3%) to the groups who experienced physical IPV only (13.7 %), sexual IPV only (21.5 %) and both physical and sexual abuse (25.5 %) (Bonomi et al. 2007). Compared with victims of physical IPV alone, victims of sexual abuse and of combined physical and sexual IPV abuse had elevated risks of severe depressive symptoms even after controlling for age, socioeconomic status and history of childhood abuse (Bonomi et al. 2007). More deleterious effects of the addition of sexual abuse on women's depression scores and the incidence of suicidal attempts was also observed in Pico-Alfonso et al.'s study (2006). In a recent review, Beydoun et al. (2012) examined 37 studies conducted in both low and high income settings. The review concluded that there is a two to three-fold increased risk of major depression among women reporting exposure to IPV compared to those who have not had this exposure.

IPV during pregnancy increases the risk of common perinatal mental disorders among mothers (Fisher et al. 2010, 2012; Groves et al. 2012; Jejeebhoy et al. 2010; Karmaliani et al. 2009; Rico et al. 2011; World Health Organization/London School of Hygiene and Tropical Medicine 2010), and is also associated with higher rates of low birth weight and child mortality among their offspring (Jejeebhoy et al. 2010; Rico et al. 2011; World Health Organization/London School of Hygiene and Tropical Medicine 2010). In a study conducted in Viet Nam, the prevalence of common perinatal mental disorders was found to be doubled among victims of IPV, compared to their non-victim counterparts, 49.2 % as opposed to 25.4 % (Fisher et al. 2010). With a sample of 1,500 pregnant women in Durban, South Africa, Groves et al. (2012) also found an increased risk of emotional distress among those who were exposed to physical, psychological, or sexual abuse, compared to those who were not. Exposure to IPV increases the likelihood that women will have high-risk health behaviours including smoking, alcohol consumption and substance abuse (Jejeebhoy et al. 2010; Vizcarra et al. 2004).

Women who live in poverty are more likely to experience IPV. A study conducted among 19,000 women in the USA found a two-fold increased risk of experiencing IPV among women with an income of less than USD 25,000, compared to those with higher incomes (Vest et al. 2002). This increased risk was also observed in prospective studies of the relationship between poverty and experience of IPV. Victims of IPV, with low income, were more likely to be re-abused after 2 years, than their peers who had higher incomes (Bybee and Sullivan 2002). IPV survivors, in addition, were less likely than other non-victims of the same socioeconomic status to have stable employment (Browne et al. 1999), due to problems like a partner's harassment at a work place and injuries due to physical abuse (Goodman et al. 2009). Unstable mental health and mental health-related disorders also prevented women from obtaining and retaining stable employment (Goodman et al. 2009).

Exposure to IPV coupled with poverty contributes to powerlessness, social isolation and marginalisation among women (Goodman et al. 2009). Many survivors have little support from families, or social networks. Social protection services are often perceived as difficult by women who were exposed to IPV because these services are difficult to access (Goodman and Epstein 2008; Laughton 2007). Uptake of mental health services among IPV-victims is often low, especially among members of ethnic minorities who might not speak the dominant language (Rodriguez et al. 2009).

Sexual Violence Against Girls and Women During Armed Conflicts

During and in the aftermath of armed conflict, it has been common for armed groups to loot, pillage and rape with impunity, treating women as the "spoil of war" (United Nations 2008). Although not a recent phenomenon, mass rape of girls and women was witnessed and documented following recent wars in Bosnia, Rwanda, Democratic Republic of Congo and Sierra Leone. In response to these recent wars, the UN Security Council unanimously adopted, in 2008, Resolution 1820, which recognizes sexual violence as a weapon of war and calls for its cessation. Sexual violence in wars is profoundly damaging to women, not only because of the direct physical and psychological consequences of rape, but also because of the consequences of stigmatization of survivors. In many settings survivors are regarded as unmarriageable, or are accused of adultery and rejected by their husbands. Women who conceive are accused of damaging family honour and are frequently ostracized.

The mental health consequences of war-related sexual violence were examined in 573 women living in displaced person's camps as a result of war in Northern Uganda. Overall, 28.6 % had experienced at least one form of sexual violence. Being younger than 44 and Catholic (thought to be taken as an indicator by perpetrators that the victim was less likely to be HIV positive) increased risk of violence. Gynaecological morbidities were common among victim-survivors and 69.4 % had significant psychological distress (Kinyanda et al. 2010).

Neighbourhood Violence and Women

Neighbourhood violence, which involves witnessing, hearing about or being directly exposed to community violence involving serious injury or death or hearing gunshots, observing fights, knife attacks and shootings. It increases the likelihood of experiencing common mental disorders among women even when the effects of intimate partner violence and neighbourhood poverty are controlled for (Clark et al. 2008). Gracia and Herrero (2007) investigated attitudes towards reporting gender-based violence among a nationally representative sample of 14,994 people in Spain or Spanish people in the USA. They found that people in neighbourhoods with high social disorder had less favourable attitudes to reporting violence against women. They conclude that where disadvantage and social disorder are concentrated in neighbourhoods there is less trust or willingness to assist others, including women in perilous personal predicaments.

Conclusion

Women are disproportionally exposed to violence over the lifetime. Structural determinants of this exposure of women are those related to inequalities in the distribution of power, income, goods, and services within a country. Gender-based violence is an indicator of the lower social position occupied by women worldwide. The roles and rights of women have undergone major change in some parts of the world, but women's rights to equality of participation; reproductive choice; freedom from discrimination and, most importantly, personal safety are not recognized universally. Gender-based violence is more prevalent in settings in which disparities in the rights and opportunities of women and men are most marked. Many women's day-to-day lives are characterised from the beginning by interpersonal violence. These include female feticide, female genital mutilation, forced marriage, adolescent marriage, polygamy and honour killing. As illustrated in this chapter gender-based violence is one of the predominant contributors to psychological morbidity in women.

Multiple levels of determination contribute to the existence, perpetuation and effects of violence against women. Macro level or social contextual variables interact with the characteristics of individuals and groups and these interrelationships require multilevel analyses and action for the reduction of violence against women. Isolated approaches to the reduction of violence are unlikely to be effective.

Psychological problems in the long term are not however inevitable. As outlined in the section Intimate Partner Violence, interventions and support for individuals are possible in a variety of settings and there is growing evidence that these can be effective in permitting women to recover. Strategies need to be developed by health care providers, educators and others concerned with reducing the incidence and impact of violence on women, to reduce women's social isolation, enhance social support networks and increase access to opportunities for experiencing competence, autonomy and success in all domains of life. More research is also needed on the qualities of courage, resilience and capacity for recovery from violence that are apparent among many women.

Any comprehensive plan to improve women's mental health will involve action to:

- improve policies and legislation,
- provide direct interventions through population based strategies to ensure that adequate, affordable and accessible health care and community support services are available,
- give support to the development of grassroots activities, and
- use media based strategies to influence awareness of issues in the general public and the decision makers.

Every effort must be made to improve the status of women, to remedy the human rights abuse deriving from gender based violence and to increase women's control over the determinants of their health.

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Chapter 8
The Consequences of Violence on the Mental Health of the Elderly

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Introduction

The elderly are not immune to violence in old age, in addition to the potential burden of exposure to violence earlier in the course of life. Data, however, on the rate of exposure of the elderly to violence in late age are scarce.

Lifetime exposure to violence among older women is lower than in younger cohorts; however, it is highly prevalent. A nationally representative study from Australia found that 14.5 % of woman over the age of 65 had a lifetime exposure of rape, sexual abuse, interpersonal violence, or stalking, compared to 22.3–35.8 % among those age 16–64 (Rees et al. 2011). A number of studies that have examined interpersonal violence against older women in the USA found rates ranging from 6.0 to 59.0 % over the lifetime, from 6.0 to 18.0 % since turning 50, and from 0.8 to 11.0 % in the past year (Cook et al. 2011).

A study of 5 states in the USA examined the rate of childhood adverse experience across age groups (CDC 2010). Among those over the age of 55, a history of verbal abuse was reported by 13.5 %, physical abuse by 9.6 %, and sexual abuse by 9.3 % of the population. For the most part, these rates were lower than

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those for other age groups. In addition, 9.4 % of the older population reported witnessing domestic abuse in childhood. Among the older population, 43.3 % reported at least 1 adverse event in childhood, with 20.4 % reporting more than 1 adverse event.

Police reporting of violence is known to be fairly low, although usually higher for older adults than for those who are younger. In the USA, the FBI's National Incident-Based Reporting System (NIBRS) found that those over the age of 60 in the state of Michigan had the lowest rate of violent victimization across all age groups during the years 2005–2009, 204.5 per 100,000 compared to 1640.7 per 100,000 across all age groups (Smith 2012). Males had a higher rate of victimization, 247.7 per 100,000, than females, 172.9 per 100,000.

The fear of crime among the elder is much higher than its prevalence. In Canada, older people are at far less risk of victimization than their own fear of crime would suggest (Hayman 2011). A study in Sweden found that two-fifths of the women and one-fifth of the men reported feeling so unsafe outside their homes that they sometimes refrained from going outside on their own (Olofsson et al. 2012). Reported violence occurred more commonly among women in the home and more frequently in public places among men.

Impact of Early Life Violence

Exposure to trauma at an earlier age can lead to detrimental health consequences later in life. Trauma at an early age, evaluated clinically more than 50 years later, may increase the rate of cardiac disease, hypertension and triglyceride levels among older persons (Kang et al. 2006). Lifetime exposure to traumatic events has been associated with increased vascular disease as well (Chaudieu et al. 2011). Researchers have suggested that the number and not necessarily the severity of lifetime traumas may be associated with chronic medical conditions (Sledjeski et al. 2008), consistent with the construct of allostatic load (McEwen and Seeman 1999). Elders who have been exposed to trauma not only may have more chronic medical conditions, but also may use more non-psychotropic medications, and are more likely to report poorer self-rated health (Petkus et al. 2009). Individuals with a history of trauma should be monitored for vascular and other physical diseases as they age. In addition, not only do such diseases increase overall mortality, they also are risk factors for Alzheimer's disease.

Child Abuse

In contrast to data in childhood, adolescence and adulthood, there is paucity of data on the late life effects of trauma that has occurred at an earlier age, including a history of child abuse or domestic violence. The majority of studies that have examined posttraumatic stress disorder (PTSD) and late life effects of earlier trauma among the elderly have looked at Holocaust survivors and World War II veterans, but there has been limited research on the effects of child abuse and domestic abuse on older individuals. Regardless of the specific nature of the trauma, there is evidence that stress occurring earlier in the lifecycle has more detrimental effects on IQ and memory than stress that has occurred at a later age (Golier et al. 2006; Schuitevoerder et al. 2013). Studies have demonstrated differences in laterality of hippocampal volume depletion depending on whether or not an individual had experienced PTSD from early life trauma, child abuse, as opposed to later life trauma, such as combat in Vietnam (Bremner 2002). Other evidence of the long lasting physiologic effects of earlier trauma is the higher degree of atrophy in the hippocampi in survivors of child abuse, as well as other traumatic events (Bremner and Narayan 1998). In addition, research suggests that trauma promotes neurochemical changes in the hypothalamic-pituitary-adrenal axis as well as glucocorticoid sensitivity that can persist throughout the life span into old age. Given the increase in hippocampal atrophy among suvivors of trauma in young cohorts, it has been proposed that PTSD may be associated with accelerated aging (Golier et al. 2002; Lapp et al. 2011).

Some researchers believe that the age at which trauma has occurred can have different effects on health in late life. For example, 1 study examined a range of traumatic events that included a history of childhood physical abuse, lifetime sexual abuse, and a history of intimate partner violence at any time in the lifecycle. Interestingly, it was found that trauma occurring at ages 18–30 and 31–64 was associated with more physical health problems occurring in later age. Cumulative life trauma appears to have greater negative health consequences among the young-old (65–74) as opposed to the old-old (85 and older) (Krause et al. 2004). These findings suggest that individuals have varying vulnerabilities to trauma experienced at different times in their life-course and that trauma occurring during young adulthood and early age exerts the greatest effect on physical health problems in later life. Older survivors of childhood physical and sexual abuse are at risk of delayed trauma reactions when they experience stressful life events such as loss of social supports. Furthermore, they may have decreased adaptive skills and coping mechanisms (Franco 2007).

There are limited data regarding the long-term effects of childhood abuse into old age. This may be due to a cohort difference among the elderly; the current population of elders may have perceived physical punishment as normative when they were children, therefore the long term effects are less severe as among younger cohorts given the change in societal attitudes (Friedman et al. 2011). In addition, studies looking into the consequences of childhood trauma have often focused on the loss of one’s parent as the traumatic event and not focused on physical trauma. Another limitation is that studies that do examine abuse occurring in childhood have focused on the short-term effects of the abuse and not the potential effects of trauma as it unfolds across the lifespan.

Childhood victimization, as well as exposure to physical or sexual violence after the age of 16, has been shown to increase the risk for interpersonal violence experienced among elderly women (Stöckl et al. 2012). Shaw and Krause (2002) found that older adults who had suffered from physical abuse from a parent in childhood had higher degrees of physical and mental illness occurring in older age. The degree of physical violence endured as a child was associated with increased depressive symptomatology in later life. Similarly, childhood abuse both physical and sexual has been correlated with increased anxiety and depressive symptoms in older adults (Dube et al. 2003; Draper et al. 2008). A community-based mental health survey from the United Kingdom that examined a history of sexual abuse among respondents age 50 and older found an association with depression, generalized anxiety disorders, eating disorders, PTSD, and suicidal ideations (Chou 2012). Another community-based study conducted in respondents 50 years of age or older in the USA found that the number of childhood abuse experiences coincided with the number of internalizing psychiatric disorders diagnosed in older age. Unlike younger individuals among these older subjects, the investigators found that self-esteem was not correlated with child abuse, and that child abuse only had a negative effect on mental health outcomes among those with low self-esteem (Sachs-Ericsson et al. 2010). In addition, suicidal ideations are more prevalent among those over the age of 60 who experienced child physical and sexual abuse (Sachs-Ericsson et al. 2013). Proposed psychological mechanisms suggest that children who suffer abuse often develop maladaptive coping skills and a loss of sense of control in early life that leads to failure in adjusting to life stressors at a later age (Shaw and Krause 2002). However, Erik Erikson (1950) suggested that we strive to formulate a life review and integrate prior life experiences in later age. Such a reflection and psychological integration could lead to a decrease in negative sequelae from childhood trauma in later life.

Holocaust Survivors in Late Life

Barel et al. (2010) conducted a meta-analysis to determine whether or not most Holocaust survivors suffer from psychopathological disorders, such as chronic anxiety or depression and personality impairment, or if most psychological impairments are restricted to a non-representative portion of survivors. They found that Holocaust survivors did not adjust as well as comparison samples; a finding that was greater among studies that were not from community samples (cf. Levav, Chapter 15). They did not find poorer physical health when non-select samples were trimmed. As for psychological wellbeing, Holocaust survivors were found to have a poorer outcome than controls (Shemesh et al. 2008). Posttraumatic stress symptoms were also found to be significantly greater in Holocaust survivors than among non-Holocaust survivors (Joffe et al. 2003). Interestingly, a small sample study of 40 subjects found a general diminution of PTSD over a period of over 10 years; however, some elderly individuals had new onset PTSD (Yehuda et al. 2009). The investigators, however, found no difference in cognitive functioning between Holocaust survivors and controls. They did find in a number of outcomes differences if the sample was from a select sample versus non-selected population; the former usually showed greater psychopathology.

Following that review, a national mental health survey conducted in Israel using the Composite International Diagnostic Interview (CIDI) on Holocaust survivors found that survivors had higher lifetime and 12-month prevalence rates of anxiety disorders, and more current sleep disturbances and emotional distress than elderly non-Holocaust survivors, but did not have higher rates of depressive disorders or PTSD (Sharon et al. 2009). In addition, a recent study found a mixed picture with subsequent adversity and mental health outcomes among Holocaust survivors. Post-Holocaust cumulative adversity and lifetime depression was found to be stronger among survivors than among comparisons; however, the association between post-Holocaust cumulative adversity and cognitive functioning was weaker among survivors than among the comparison group (Shira et al. 2010). Consistent with the lack of strong findings on the long-term effects of the Holocaust on health is a report showing that suicide is not increased among Holocaust survivors with cancer (Nakash et al. 2013). In addition, Holocaust survivors who live into late life do not have an increased risk of developing dementia compared to non-Holocaust survivors (Ravona-Springer et al. 2011).

Late life mortality in older Israeli Jews has been shown to be higher among those exposed to the Holocaust (Ayalon and Covinsky 2007; Collins et al. 2004). This may suggest that those at greatest risk may have died earlier, a finding that may have an implication for the negative studies of psychopathology.

Children and Young Adults Exposed to War

A number of studies have been conducted on children exposed to World War II who were not Holocaust survivors. Children who experienced World War II in Hamburg, Germany, who were displaced and those who were not displaced were examined for posttraumatic stress symptoms and for depressive symptoms (Strauss et al. 2011). The investigators found that more than 60 years later, World War II related trauma exposure posed a risk on mental health functioning. A dose-relation between war-related experiences and posttraumatic stress or depressive symptoms in late life was found for both displaced and non-displaced elders. Another German population-based study found that 72.6 % of the elderly population reported at least 1 war-related traumatic event and 56.2 % a civilian-related trauma earlier in life (Hauffa et al. 2011). Those with PTSD were found to have a greater risk for developing cardiovascular diseases, cardiovascular risk factors, peripheral vascular disease, as well as for asthma, cancer, back pain, hearing deficits, osteoporosis, stomach problems, and thyroid disorders (Glaesmer et al. 2011a). Similarly, an Austrian study found that those who had PTSD symptoms later in life had been exposed to more lifetime trauma (Tran et al. 2013). A Polish study of individuals 63–78 years old found that about a third of individuals with World War II exposure had developed PTSD (Lis-Turlejska et al. 2012).

Another study examined British children ages 4–15 evacuated from Southeast England to rural areas in the United Kingdom during World War II without their parents (Rusby and Tasker 2009). This study found significant associations between childhood experience variables and mental health, and these associations were mediated by upbringing variables and development into later life. Those evacuated in adolescence, 13–15 years of age had significantly lower lifetime depression and clinical anxiety than those evacuated at a young age. In addition, those who received good foster care during evacuation were at a reduced risk of affective disorders in adulthood. These findings were replicated by several German studies that examined individuals displaced during World War II (Kuwert et al. 2012; Freitag et al. 2013). The displaced respondents were significantly more affected by somatoform symptoms and PTSD than the non-displaced population. Kuwert et al. (2012), however, found that it was not displacement, but the amount of traumatic events that predicted somatization among those with somatoform symptoms. Similarly, studies of Finnish children evacuated to Sweden or Denmark between 1939 and 1945 without their parents due to the Soviet-Finnish wars showed increased psychological posttraumatic symptoms (Andersson 2011) and depressive symptoms (Pesonen et al. 2007) as older adults compared to non-evacuees.

Others have examined the impact of exposure in Nagasaki, Japan, to the atomic bomb. Individuals who still resided in the city 50 years following the dropping of the bomb were compared to subjects who moved afterwards to Nagasaki (Kim et al. 2011). Individuals who were in the vicinity of the atomic bomb explosion continued to have symptoms associated with increased psychological distress half a century later. An earlier study found that recurring and distressing recollection of the experience of the atomic bombing, suspicion over the relationship between the atomic bombing and an unhealthy physical condition, and witnessing death or severe injury of close relatives were significantly related to the degree of psychological distress of the survivors (Ohta et al. 2000).

Another population affected in young age to war exposure violence is refugees from the Vietnam War. This population is now reaching old age. A study of Vietnamese refugees in Australia found that individuals over the age of 55 had higher rates of PTSD than those who were younger (Silove et al. 2007). Interestingly, a comparative analysis found that the opposite was true for older individuals born in Australia, who had lower rates of PTSD than their younger counterparts.

These studies of earlier life experience to war all suggest that long-term consequences to trauma persist into late life. However, the extent of the trauma and the number of intervening life events may mediate the long-term outcome of psychopathology.

Veterans of War

Chronic PTSD is highly prevalent in elderly veterans with combat exposure in war. The greater the combat exposure, the higher is the prevalence of PTSD symptoms. One study found that American World War II veterans exposed to moderate or heavy combat had approximately 13 times a greater risk of developing PTSD symptoms when compared with non-combat veterans (Spiro et al. 1994). Similarly, a study of Australian Korean veterans of war found that 32.0 % met criteria for PTSD and 23.0 % met criteria for depression, with 17.0 % being comorbid for depression (Ikin et al. 2010). The investigators found that war-related factors were associated with depression comorbid with PTSD and PTSD alone, but not with depression alone. Interestingly, a study based on a sample of German child soldiers during World War II found low rates of current PTSD, 1.9 % (Kuwert et al. 2008); however, this study was based on respondents recruited through an article in the press.

A number of studies have focused on the long-term outcome of prisoners of war (POWs). A study of Japanese and Korean prisoners of war found that more than half of men met criteria for lifetime PTSD and 29.0 % for current PTSD using the Structured Clinical Interview for *DSM*-IV (SCID) (Engdahl et al. 1997). Those who were Japanese POWs were more traumatized and had high rates of current PTSD, 59.0 %. More recently, a study of veterans who were in captivity during World War II compared PTSD symptoms among those who were in the European and the Pacific theatres (Rintamaki et al. 2009). Both groups reported high rates of reflection, dreaming, and flashbacks pertaining to their prisoner of war experiences. The Pacific theatre POWs did so at higher rates than those from the European theatre of war; the rates of PTSD were 34.0 % and 12.0 %, respectively. Both groups reported greater rumination on POW experiences after retirement.

A review of the literature that examined late-onset PTSD among war veterans found that PTSD has occurred among some veterans as late as 50 years after combat without previous psychiatric symptoms or re-exposure to battle (Owens et al. 2005). Another review found varying rates of reactivation of PTSD, 11.0–34.0 % (Hiskey et al. 2008). PTSD symptoms may appear when the elderly veteran is faced with life events such as retirement, loss of a loved one, diminished sensory capabilities, mobility problems, isolation, cognitive impairment, institutionalization, increased interaction with medical facilities, and ill health. In contrast, several longitudinal studies found no evidence of an increase in PTSD symptoms related to life events and the aging process in this population (Lee et al. 1995; Dirkzwager et al. 2001).

An increased risk of dementia, as high as two-fold, among veterans who have PTSD across the lifespan has been found (Yaffe et al. 2010). Both the incidence and prevalence rates of dementia are increased; however, it is unclear whether there is a common risk factor underlying PTSD and dementia or whether PTSD is a risk factor for dementia (Qureshi et al. 2010). A neuropsychological study of POWs from World War II and Korea supported these findings (Hart et al. 2008). Those POWs who developed PTSD had average IQ, while those who did not develop PTSD after similar traumatic experiences had higher IQs than average. Those with PTSD performed significantly less well in tests of selective frontal lobe functions and psychomotor speed. In addition, PTSD POWs with comorbid psychiatric conditions experienced impairment in recognition memory for faces. Similarly, alterations in total learning were found in combat veterans with PTSD compared to those without PTSD (Yehuda et al. 2005).

Domestic Violence

Although men are exposed to various degrees of violence in their lifetime, mostly accounted by experiencing war and street violence, women are more often victims of sexual and physical assault. Older women report a lower lifetime rate of physical and sexual assault compared to younger women (Cook et al. 2011). Prevalence estimates range from 6.0 to 59.0 % for interpersonal violence over the lifetime of older women. Other studies found that women over age 55 reported lower lifetime exposure to physical and sexual trauma as opposed to exposure from ages 18 to 30. These data are puzzling as it contradicts the assumption that exposure to physical or sexual violence should accumulate over a lifetime (Cook et al. 2011). Possible explanations include reluctance to disclose trauma due to shame related to generational beliefs or decreased ability to remember. Older women with a lifetime history of sexual abuse also report different characteristics of the assault, including lower rates of vaginal, oral and anal forms of rape. Furthermore, there appears to be different beliefs about the nature and severity of physical violence among younger and older women, which may account for these differences in reported characteristics (Cook et al. 2011).

Some surveys conducted in the mid 1990s found virtually that no women over age 59 reported victimization (Verhoek-Oftedahl et al. 2000). Investigators at the time believed that the women in the older age cohort considered violence a private family matter. In earlier years such violence was not even considered against the law, for example marital rape laws and domestic violence laws only came into evolution in the 1980s and early 1990s.

Cook et al. (2011) reviewed 58 studies published between 1980 and 2009 on older women who had experienced domestic violence during their lifetime. To summarize, it is known that women who have suffered intimate partner violence have greater physical and mental health-related problems. Studies demonstrate that older women who have experienced interpersonal violence report greater psychiatric distress, including increased rates of depression, substance abuse and anxiety when compared to older women who did not report a history of interpersonal violence.

Older women are less likely to disclose a history of physical or sexual abuse when compared to younger samples (Cook et al. 2011). Elderly cohorts often delay disclosing trauma histories to their providers out of shame as well as perceived social stigma arising from generational beliefs from earlier times when disclosure was not an option. There also may be complicating medical problems that led to the clinical visit that may be foremost in the patient's mind and of concern to the provider. Additionally, there is a lack of normative language to describe their earlier experiences.

Elder Abuse

Definition of Elder Abuse

Legal authorities frequently define elder abuse as the wilful infliction of physical pain, or wilful deprivation of services including neglect, abandonment and exploitation against the elderly person. A caretaker, not limited to family members, must carry out the act or other person with a duty to care for the elderly person, including institutional settings. The USA Academy of Sciences defines elder abuse as *intentional actions that cause harm, whether or not harm is intended, to a vulnerable elder by a caregiver or other person who stands in a trust relationship to the elder or the failure by a caregiver to satisfy the elder's basic needs or to protect the elder from harm* (Bonnie and Wallace 2003). The World Health Organization (WHO) defines elder abuse as *a single, or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person*. The requirement of the act being committed by a caregiver, person in a trust position or an institutional setting distinguishes elder abuse from other crimes, violence and exploitation of an elderly individual.

Typically, elder abuse encompasses 5 domains (Kohn and Johnston 2013). Physical abuse includes inflicting physical pain or injury; sexual abuse consists of inflicting nonconsensual sexual activity; psychological or emotional abuse is the inflicting of mental anguish, including intimidation, humiliation, or threats; financial abuse is the improper use of resources, property, or assets without the person's consent; and neglect includes the abandonment, failure to fulfill a care-taking obligation, including provision of food, safe shelter, physical health and mental health care, or basic custodial care.

Prevalence of Elder Abuse

Elder abuse is underreported; physicians report only 2.0 % of all cases (Rosenblatt et al. 1996). The mistreated elder tends to deny that the abuse or neglect takes place or refuses to report it. Older victims of abuse may not report because of fear of retaliation; fear of abandonment or being removed from the home; the belief that the abuse was deserved; the sense that there is nowhere else to go; the belief that nothing can be done about it; and the shame in admitting such treatment from one's own family (Kosberg 1988). The elder also may be concerned that family members may face criminal charges. Elderly victim's failure to report may not be just do to fear that they will be removed from the home, but that removal of the abuser removes the support standing between the elder and long term care. Those who are mistreated are 3 times more likely to die in a 3-year period (Dong et al. 2009).

Until recently there were little data that provided an estimate of the number of elders who are victimized (Cooper et al. 2008a). Much of the early data relied on protective agency reviews, sentinel reports, and criminal justice reports. These sources, however, are not collected for the purpose of epidemiological research. Interviews of caretakers and direct interviews of representative populations of the elderly have only recently been conducted. The issues of how to evaluate those who have cognitive disorders and increasing the willingness of elders to disclose remain methodological issues. Ideally, there should be integration of these various sources to provide a coherent picture of the extent and public health implications of elder abuse. How elder abuse is measured is not standardized across studies.

Two recent national studies of the prevalence of elder abuse have been conducted in the USA. In a survey of 3,005 community residents between ages 57 and 85 interviewed either in person or with a leave-behind questionnaire found that past-year prevalence rates reached 9.0 % for verbal abuse, 0.2 % for physical abuse, and 3.5 % for financial mistreatment (Laumann et al. 2008). The second study used random digit dialing of a representative sample of 5,777 respondents age 60 and older living in the community, and found a 1-year prevalence rates of 4.6 % for emotional abuse, 1.6 % for physical abuse, 0.6 % for sexual abuse, 5.1 % for potential neglect, and 5.2 % for financial abuse. One in ten elders, defined as those over 60 in most studies, had experienced some form of abuse in the past year (Acierno et al. 2010).

In Canada, family-related victimization was higher among elderly women, while elderly men were more likely to be victimized by an acquaintance or stranger. Grown children and spouses or former spouses most often committed family violence against the elderly in Canada. In 2010, 36.0 % of family perpetrators against individuals aged 65–69 years were grown children, followed by spouses at 30.0 %. By age 85–89 years, grown children accounted for nearly half (49.0 %) of all family perpetrators, while spouses represented 21.0 % of family perpetrators (Statistics Canada 2011).

A number of studies have been conducted in Europe. In a community-based survey in Ireland, the 12-month prevalence rate of elder abuse and neglect was relatively low, 2.2 % (Naughton et al. 2012). The frequency of subtypes of abuse was financial 1.3 %, psychological 1.2 %, physical abuse 0.5 %, neglect 0.3 %, and sexual abuse 0.05 %. A study conducted in the United Kingdom had similar 1-year prevalence rates, 2.6 % (Biggs et al. 2009). The prevalence of subtypes of reported mistreatment was neglect, 1.1 %; financial abuse, 0.7 %; psychological abuse, 0.4 %; physical abuse, 0.4 %; and sexual abuse, 0.2 %. In a study of community dwelling elders in 7 European countries (Germany, Greece, Italy, Lithuania, Portugal, Spain, Sweden) the overall 12-month prevalence rate of psychological abuse was 19.4 %. Other forms of abuse were less prevalent, physical, 2.7 %, sexual, 0.7 %, financial, 3.8 %, and injury, 0.7 % (Soares et al. 2010). However, the rates varied widely between the participating European countries, with the highest rates in Germany (Lindert et al. 2013). A 12-month prevalence survey conducted in the province of Girona, Spain, of persons age 75 and older found suspected abuse in 29.3 % of the respondents. The most frequent of the different subtypes of abuse was neglect, 16.0 %; followed by psychosocial abuse, 15.2 %; financial abuse, 4.7 %; and physical abuse, 0.1 % (Garre-Olmo et al. 2009). A survey conducted in Sweden found that the rate of psychological abuse varied by age of the elder and gender, from 5.0 to 8.9 % for psychological abuse, and 0.2–3.0 % for physical abuse (Olofsson et al. 2012). This study found high rates of suicidal ideations and attempts among abused elderly males. A national survey in Israel reported a rate of elder abuse in the past year of 18.4 %, with verbal abuse, 14.1 % being the most common type of abuse, followed by financial exploitation, 6.4 %; suffering from limitation of freedom, 2.7 %; and either sexual or physical abuse, 2.0 % (Lowenstein et al. 2009).

In China, a study of 3 rural communities found that over a third, 36.2 %, of the 60 and older respondents reported mistreatment in the past year (Wu et al. 2012). Prevalence rates of psychological mistreatment, caregiver neglect, physical mistreatment, and financial mistreatment were 27.3 %, 15.8 %, 4.9 % and 2.0 %, respectively. A probability sample of 500 elderly respondents in Chennai, India, found a 14.0 % prevalence rate of elder abuse (Chokkanathan and Lee 2005). Chronic verbal abuse was most common, 10.8 %, followed by financial abuse, 5.0 %; physical abuse, 4.3 %; and neglect 4.3 %. A study of 274 community respondents in Pernambuco, Brazil, found that 20.8 % of the respondents experienced some form of violence in their home environment (Duque et al. 2012).

The few studies that have examined the prevalence of elder abuse in nursing facilities have suggested that it is not an uncommon occurrence (McDonald et al. 2012). Studies that evaluate residents in facilities directly are rare, and most are based on nursing staff reports.

Risk Factors for Elder Abuse

Numerous patient and caregiver factors have been associated with elder abuse. Most studies report that women have higher rates of being abused than men. Forensic studies suggest that while women are more likely to be victims of sexual and physical assault, men are more likely to die from homicide due to neglect (Abath et al. 2010; Shields et al. 2004). Persons over the age of 75, having a lower socioeconomic status, those with more cognitive impairment, individuals with psychiatric or psychological problems, and those requiring more assistance with activities of daily living are at increased risk of abuse (Johannesen and LoGiudice 2013). Elders at highest risk of being abused include those who are physically and mentally dependent on the caregiver; have poor communication with their caregiver; are submissive, withdrawn, or depressed in the presence of the suspected abuser; exhibit demanding or aggressive behaviour; have been abused in the past by the caregiver; exhibit potentially provocative behaviours; and live constantly with their caregiver (Reay and Browne 2001; Bennett and Kingston 1993; Steinmetz 1998).

Data limited to police reported cases from 2000 to 2005 in the National Incident-Based Reporting System in the USA, which is not based on a representative sample of the population, had 87,422 reported incidents of elder physical abuse with a 1:1 victim-offender ratio. The police reported that most physical assaults were committed by a person age 45 or older (41.4 %), with a mean age of 42. About 73.0 % of offenders were white and 72.1 % were males, while only 46.6 % of victims were males. The abusers were most often children (23.9 %); followed by a spouse (19.6 %); or other family (12.3 %), acquaintances (36.2 %), and others (8.1 %) (Krienert et al. 2009). Caregiver factors rather than risk factors associated with the abused elder may be more important in predicting abuse and neglect (Reis and Nahmisas 1998).

Caregiver studies that examined elder abuse reported a range of 12.0–55.0 % (Cooper et al. 2008b). Eighteen factors have been identified in caregivers that have been associated with increased likelihood for elder abuse and neglect: (1) responsibility for an elderly individual over the age of 75; (2) living constantly with the elderly dependent; (3) inexperience or unwillingness to provide care; (4) suffering a relationship conflict; (5) exhibiting hostile, threatening or aggressive behaviour; (6) having other caring demands from spouse or children; (7) being subject to high stress and strain; (8) isolation and lack of social support; (9) poor physical health; (10) history of mental illness; (11) history of depression; (12) history of anxiety disorder; (13) history of alcohol abuse; (14) history of drug abuse; (15) history of being abused or neglected as a child or a history of family violence; (16) assistance with their own activities of daily living that are unmet; (17) high expectations of the elderly dependent; and (18) being heavily dependent on the person they are mistreating (Kohn and Verhoek-Oftedahl 2011).

A number of studies have focused specifically on caregivers of individuals with dementia. Anxious and depressed caregivers engage in more abuse than other caregivers of individuals with dementia (Cooper et al. 2010a). A British study also found that abuse was mediated by dysfunctional coping strategies and higher caregiver burden defined as the physical, psychological, social, and financial demands of caring for someone (Cooper et al. 2010a). Abuse of individuals with dementia was predicted by spending more hours providing caregiving, experiencing more abusive behaviour from the individual and higher caregiver burden. Among families studied, these investigators found a high prevalence of self-report of abusive behaviours by family caregivers, 52.0 %, reported some abusive behaviour in the past 3 months, 33.0 %, psychological abuse and 4.0 %, physical abuse. Unfortunately, the investigators found that the abusive behaviour worsened 1 year later despite contact with specialized services (Cooper et al. 2010b). The predictors of the increase in abusive behaviour were anxiety and depressive symptoms in the caregivers, and fewer hours of in-home services at baseline. A study conducted in Florida, USA, examined verbal abuse by caregivers and found that 60.1 % reported verbal aggression as style of conflict resolution (Vandeweerd and Paveza 2005). Caregiver factors associated with increased risk for verbal aggression included being female, providing care to verbally aggressive elders, caregiver's diminished cognitive status, caregivers with high levels of psychiatric symptoms including depression, or experiencing a high degree of caregiver hassle. In Japan, a study was conducted to explore an earlier finding from a nationwide survey that elicited that

50.0 % of those who were perpetrators were unaware that their behaviour constituted elder abuse. The study of non-caregivers ranging in ages from 18 to 86 perceived abusive behaviour toward an elder with dementia as less abusive than they perceive the same behaviour toward an elder without dementia (Matsuda 2007).

Little data, however, exists on the characteristics of professional caregivers who abuse residents in nursing home facilities. The following risk factors for employees who become abusive have been identified: lower job satisfaction; viewing patients as childlike; experiencing burnout; too difficult work environment; history of domestic violence; history of mental illness; and drug or alcohol dependence (Lindbloom et al. 2007).

Mental Health Consequences of Elder Abuse

The mental health consequences of elder abuse remain virtually unstudied. A number of cross-sectional studies have included mental health measures, psychological distress and depression, as risk factors for elder abuse and found a positive association (Dong et al. 2013). As nearly all studies on elder abuse are cross-sectional whether or not these mental health outcomes are also an outcome of elder abuse is difficult to ascertain. Only 3 longitudinal studies with mental health as an outcome have been conducted suggesting poorer mental health outcomes among those who are abused (Dong et al. 2011; Comijs et al. 1999; Schofield and Mishra 2004). These studies examined psychological distress or depressive symptoms, but not incidence of mental disorder as an outcome.

Two studies have examined the prevalence of elder abuse in mental health settings. The first study was a Canadian chart review of outpatients and inpatients at the Montreal General Hospital geriatric psychiatry service, in the city of Montreal. Abuse and neglect was reported in the medical record of 16.0 % of the patients (Vida et al. 2002). The second study compared elder abuse among seniors hospitalized in a psychogeriatric ward and those hospitalized for somatic disorders in an internal ward in a Czech psychiatric hospital (Luzny and Jurickova 2012). Those elders in a gerontopsychiatric unit had a rate of abuse of 13.9 % compared to 1.9 % among those who were somatically ill. Neither study resolves the question of whether mental illness is a factor leading to abuse or a result of abuse, the onset of abuse and mental illness was not reported. Studies that have measured PTSD or the incidence of other psychiatric disorders as an outcome of elder abuse are lacking whether in clinical samples or representative population studies.

Evaluation and Screening for Elder Abuse

The utility of screening for elder abuse has been questioned (Lachs and Pillemer 2004). There are 2 arguments against screening: (1) no effective screening techniques have been developed for elder abuse, although a number of instruments do exist, and (2) studies have not shown that intervention in those identified with elder abuse improves clinical outcome and does not paradoxically worsen the risk of violence (Daly et al. 2012; Lachs and Pillemer 2004). Clinicians should be aware of clinical symptoms that may be suggestive of elder abuse: delay between injury or illness and seeking medical attention; disparity in explanations between patient and suspected abuser; implausible, vague or inappropriate explanations of injury; laboratory studies inconsistent with stated history; unexplained bruises fractures, lacerations or abrasions; gross inattention to nutrition or hygiene; apathy, depression or worsening dementia; injuries in various stages of healing; decubitus ulcers; lack of compliance with medical regimen; bleeding gums, poor dentition and oral hygiene; and weight loss, malnutrition and vitamin deficiency (Levine 2003). Bruises may be a telling sign of physical abuse in the elderly, particular if they are larger than 5 cm on the face, lateral right arm, or posterior torso (Wiglesworth et al. 2009).

Once the possibility of elder abuse has been raised either from clinical evaluation or screening, a comprehensive clinical and psychosocial assessment is necessary. A multidisciplinary approach may be necessary. Lachs and Pillemer (1995) developed an algorithm to address confirmed elder abuse. If the patient is willing to accept services then context specific interventions should be initiated, such as education regarding elder abuse including the tendency of abuse to increase in frequency and severity over time; implementing a safety plan; and referral to appropriate services. If the patient is unwilling to accept services the intervention differs by whether or not the patient lacks capacity. For those who do not lack capacity one should provide education with regard to abuse, provide information for appropriate referrals, develop and review a safety plan, and develop a follow-up plan. For those without capacity referral to an appropriate agency would be necessary and possibly conservatorship or guardianship. Reporting of elder abuse, whether or not the person is willing to accept services and has capacity or not, is required in many jurisdictions.

Consequences of Other Forms of Trauma During Old Age

Disasters

Early research on disasters suggested that they had a disproportionate impact on the elderly, that their sense of deprivation was greater than their actual losses. It was believed that the elderly had more psychological distress (Kilijanek and Drabek 1979). For example, increased psychological distress and post-traumatic symptoms were noted in the elderly compared to younger individuals recruited from primary care clinics following the Chi-Chi earthquake in Taiwan (Yang et al. 2003). Alternatively, the elderly may have developed skills to cope with the stresses of life because of past experiences. This is known as the 'inoculation hypothesis' (Knight et al. 2000). A comprehensive review of disaster-related stress by Norris et al. (2002) found that in 15 of 17 population samples reported in 16 articles, older persons were not found to be at greater risk than other adults. In examining the outcome of Hurricane Mitch in Honduras, Kohn et al. (2005) found the elderly were at risk for PTSD based on the Composite International Diagnostic Schedule (CIDI), but were equally affected as younger adults. In addition, the investigators found that personal threats to life and physical integrity increased the risk of psychopathology. This study did not find support for a 'differential vulnerability' hypothesis; however, there was indirect evidence for the 'inoculation' hypotheses.

A comprehensive review of studies conducted up to 2006 that included elderly samples found 7 studies where younger cohorts were in more distress, 8 studies where middle aged cohorts were in more distress, and 11 studies where older subjects were in more distress, and 6 studies where no differences were noted (Cook and Elmore 2009). The authors concluded that effects of natural disasters on the mental health of older adults are equivocal. Since that review a number of recent studies have added to this equivocal literature. PTSD symptoms and general psychiatric morbidity was found to be higher among the elderly 15 months after the Sichuan, China, earthquake (Jia et al. 2010). However, a study of another earthquake in Wenchaun, China, examining PTSD symptoms found no significant difference among those age 55 and older (Kun et al. 2009). In a multiple logistic regression limited to that age 60 and older from the Wenchuan earthquake using the PTSD-Checklist and the Hopkins Symptom Checklist-25, investigators found that respondents who had suffered a loss of livelihood or had a stronger initial fear during the earthquake were more likely to exhibit PTSD symptoms (Zhang et al. 2012). Respondents, who were female, bereaved, injured or had family members who were injured were more likely to exhibit anxiety symptoms. Only a stronger initial fear during the earthquake was associated with depressive symptoms.

Most studies continue to suggest little difference in the risk of developing psychopathology post-disaster between younger and older cohorts. However, little research with few exceptions have examined the longitudinal course of traumatized elderly individuals or taken into account baseline psychopathology. A longitudinal study of victims from Hurricane Katrina affecting the southern USA found that the individuals who developed PTSD and were 60 years of age and older were less likely to recover in a 2-year period than those between ages 40 and 59; no statistical difference was noted between those who were less than 40 and over age 59 (McLaughlin et al. 2011). Another study examined whether or not those with a pre-existing mental health diagnoses were at increased risk of developing a new disorder post-Katrina; older individuals were at no more risk than younger respondents (Sullivan et al. 2013).

War and Terrorism

Shortly after the war in Kosovo the civilian population was surveyed. Those over the age of 65 were found to exhibit greater levels of distress, but did not differ in rates of posttraumatic symptoms based on the Harvard Trauma Questionnaire (Cardozo et al. 2000). A household survey conducted during the war in Afghanistan also included individuals over the age 55 (Cardozo et al. 2004). Older individuals had poorer social functioning and higher levels of depression, the later did not reach statistical significance. No difference was seen with PTSD based on the Harvard Trauma Questionnaire.

Several studies have examined the impact of the war and terrorism on elderly Israelis. In a study that focused on the impact of terrorism on older Israelis, no difference was noted between younger adults and older adults in posttraumatic symptoms (Bleich et al. 2005). A small sample study that examined Holocaust survivor response to the SCUD missile attacks during the Gulf War, those whose homes were damaged by SCUD missiles were re-traumatized and showed reactivation of survivor syndrome (Robinson et al. 1994). In examining the effects of the Second Lebanon War on Israeli citizens, although the elderly reported significantly higher levels of stress symptoms and lower levels of posttraumatic recovery, elderly males showed higher levels of individual resiliency compared to younger individuals (Kimhi et al. 2012).

A number of studies examining the impact of the World Trade Centre September 11, 2001 terrorist attack in New York city, included older age groups in the analysis. A study conducted 2–3 years after the terrorist attack on residents in lower Manhattan found higher rates of PTSD based on a symptom checklist using telephone interviewing among those 65 and older compared to individuals age 18–24 years of age. Although difference with other age groups were not tested, the elderly had lower rates than those age 45–64 (DiGrande et al. 2008). In another study, using the same methodology on civilian survivors of 9/11, the authors had a similar finding, but did not find a difference between those age 65 and older and age groups other than 18–24 years of age (DiGrande et al. 2011).

Response to Trauma Among Individuals with Dementia

Most studies that examined the response of trauma among the elderly excluded individuals with dementia. Evaluating the response of individuals with dementia to traumatic events is a challenge. Behavioural consequences can include signs of fearfulness, increase in agitation, pacing, isolation and resistance to care, as well as a hesitation to talk (Wiglesworth et al. 2010). Studies of war veterans with dementia with and without a diagnosis of prior PTSD have not found an increase in aggression or other behavioural symptoms (Ball et al. 2009; Verma et al. 2001). Recall of traumatic events among the cognitively impaired may be subject to a recall bias. However, individuals with dementia may recall traumatic events as illustrated in a study of individuals with Alzheimer's disease assessed 6–10 weeks after the Kobe, Japan, earthquake (Ikeda et al. 1998).

Evaluation of individuals with dementia for exposure to trauma has a number of obstacles including lack of physical evidence, poor language, decreased cognitive capacity and poor victim cooperation. Interviewing the caregiver may be necessary to ascertain exposure to trauma including elder abuse. Studies have shown that caregivers will frequently admit to abuse of the care recipient (Cooper et al. 2009).

Biological Correlates of PTSD

Very few studies have been conducted examining biological correlates of PTSD in the elderly. An examination of 32 male veterans 52–81 years of age, half with PTSD, underwent a MRI scan and a PET scan using placebo and hydrocortisone to examine cerebral glucocorticoid responsiveness (Yehuda et al. 2009). The PTSD group showed a decrease in activity in the anterior cingulate cortex with hydrocortisone, which reflects differences in central glucocorticoid responsiveness. Compared to the non-PTSD group, the PTSD group responded to glucocorticoid challenge by increasing metabolism in the right hippocampus and the right ventral amygdala. In addition, the investigators found cortisol enhanced episodic memory performance in both groups, but enhanced elements of working memory performance only in the PTSD group (Yehuda et al. 2007). The authors suggested that the preferential effect of cortisol administration on working memory in PTSD might be related to the superimposition of PTSD and age, as cortisol had impairing effects on this task in a younger cohort.

A study of Holocaust survivors with and without PTSD, which also included a non-traumatized control group, did not find smaller hippocampal volumes in the either traumatized group (Golier et al. 2005). This finding was counter to the literature on younger populations that suggest that individuals with PTSD have small hippocampal volumes. Freeman et al. (2006) also found no association among POWs. There have been a number of hypotheses put forth to explain these results: (1) atrophy due to normal aging has masked these results; (2) lifetime low ambient cortisol may protect the hippocampus from stress-related atrophy; (3) a selection bias may exist in old age with a healthier sample being surviving; and (4) smaller hippocampus volume may be a predisposing factor rather than a consequence of PTSD (Lapp et al. 2011). Studies on other elderly groups with early traumatization are lacking.

Yehuda et al. (2009) has also conducted a number of studies examining cortisol response among Holocaust survivors. Holocaust survivors with PTSD show a flatter circadian rhythm of cortisol release than comparison subjects who exhibit lower morning, and higher evening, cortisol levels. Holocaust survivors with PTSD have lower mean cortisol levels over the diurnal cycle, possibly because morning cortisol levels are not greatly diminished (Yehuda et al. 1995, 2005). Holocaust survivors with PTSD also demonstrate an enhanced negative feedback inhibition of cortisol compared to controls (Yehuda et al. 2002). The investigators suggest that the flatter circadian rhythm in Holocaust survivors may be indicative of a superimposition of age-related hypothalamic-pituitary-adrenal axis alterations. Studies examining the hypothalamic-pituitary-adrenal axis in other elderly populations exposed to violence have not been conducted.

Prevalence of Post-traumatic Stress Disorder in the Elderly

Post-traumatic stress disorder, although less prevalent in community-based mental health studies among the elderly compared to younger cohorts, is nevertheless a frequent mental health outcome among traumatized elders exposed to violence either earlier or later in life. Current PTSD among the elderly is significantly associated with visits to mental health professionals, and with increased frequency of general practitioner visits and of specialist visits (Glaesmer et al. 2011b).

A population survey of 3 German northern cities using the SCID to make a diagnosis of PTSD found that the elderly, 65 and older, did not differ statistically in rates of PTSD from younger age groups both for lifetime and 1-month prevalence (Spitzer et al. 2008). The lifetime prevalence for the elderly was 3.1 % and the 2 younger cohorts were 3.8 and 4.0 %. The 1-month prevalence was 1.5 % among the elderly, and those who were younger, 2.6 and 3.6 %. A nationally representative study of Germany examining the rates of PTSD based on an instrument that combined the CIDI and a PTSD symptom checklist found the highest rates among that age 60 and older, 3.4 %, compared to 1.9 % among 30–59 year olds (Maercker et al. 2008). Another SCID study was conducted in the Sivas province of Turkey limited to those 65 and older (Kirmizioglu et al. 2009). The current prevalence for PTSD was 1.9 % and lifetime prevalence was 1.1 %. The prevalence rate decreased with age and was highest among females. A study of the population age 65 of Montpellier, France, selected form the electoral roles found a lifetime rate of PTSD of 2.4 % and current PTSD of 1.2 % based on the Watson PTSD Inventory (Chaudieu et al. 2011).

The most common psychiatric prevalence studies that are representative of the general population have been conducted using the CIDI to make a diagnosis of PTSD. Although there are many such studies conducted around the world only a small number have presented rates on PTSD stratified by age. Table 8.1 presents a summary of the prevalence rates from these studies. Only 2 studies have further stratified the elderly population beyond age 65. A Chilean study found a decreasing prevalence among the old-old (Kohn et al. 2008); however, this was not the case for the study based in the USA (Byers et al. 2010).

Table 8.1 CIDI PTSD *DSM*-IV prevalence rates in representative community samples in %

Country	Author	Prevalence period	Age range	Elderly age	Elderly	Non-elderly
Australia	Trollor et al. (2007)	12-month	18+	≥65	0.2	
Brazil	Viana and Andrade (2012)	Lifetime	18+	≥65	2.5	2.9–4.0
Chile[a]	Kohn et al. (2008)	Lifetime	20+	≥65	2.0	5.2
	Kohn et al. (2008)	12-Month	20+	≥65	2.7	1.5
China	Lee et al. (2007)	Lifetime	18–70	≥65	0	0.3–0.4
ESEMeD[b]	Darves-Bornoz et al. (2008)	12-month	18+	≥65	10.8	7.4–31.3
Iraq	Alhasnawi et al. (2009)	Lifetime	18+	≥65	4.9	1.6– 3.7
Netherlands	de Vries and Olff (2009)	Lifetime	18–80	≥65	2.7	5.2–9.8
New Zealand	Wells et al. (2006a)	12-month	16+	≥65	1.7	2.4–3.5
	Wells et al. (2006b)	Lifetime	16+	≥65	4.1	4.4–7.0
South Africa	Stein et al. (2008)	Lifetime	18+	≥65	4.4	1.8–2.7
USA	Byers et al. (2010)	12-month	55+	≥65	0.6–0.7	4.7
	Kessler and Wang (2008)	Lifetime	18+	≥60	2.5	6.3–9.2

[a] Belgium, France, Germany, Italy, the Netherlands, Spain
[b] DSM-III-R diagnoses

Psychotherapy with Traumatized Elders

Older individuals who have experienced trauma suffer from more negative physical and mental health consequences and subsequently may be high utilizers of the medical system. Although a debate exists about the validity of routine screening, it is recommended that clinicians should routinely inquire about a history of traumatic events, and examine for physical evidence of current abuse. Supportive psychotherapy, relaxation therapy, psychodynamic psychotherapy, as well as cognitive behavioural therapy have been used to alleviate psychological suffering associated with trauma in the elderly. However, the evidence of specific treatment modalities specific to the older population is limited.

Psychotherapy treatment for survivors of trauma, and especially those suffering from PTSD from previous trauma, aims to provide support and education as well as coping skills. The first step should be promoting patient safety, which may include establishing a safety plan, especially if the trauma is current and ongoing. There may be generational attitudes about psychotherapy and fear of revealing an abuse history, therefore addressing any concern of stigma, loss of control and reluctance to disclose previous trauma is necessary. Older patients may take longer to engage in therapy than younger patients; therefore, the time course may vary in comparison to younger patients. Clinicians have found that older patients require more time to process and work through trauma. In addition, it is important to acknowledge physical complaints and address the older patient with in a respectful manner that maintains their dignity (Weintraub and Ruskin 1999).

Cognitive behavioural treatments in older populations are the most widely studied. There is evidence that controlled exposure to traumatic memories, desensitization training and cognitive restructuring are beneficial (Franco 2007). No randomized controlled studies have specifically examined the efficacy of cognitive therapy for older elderly patients with PTSD (Böttche et al. 2012). Cognitive approaches alone or combined with behavioural interventions have been found to be effective for other anxiety disorders in late life, especially GAD (Ayers et al. 2007; Wolitzky-Taylor et al. 2010). Exposure therapy for PTSD should be used cautiously in older patients given the high vegetative arousal associated with exposure, in particular those with cardiovascular disease (Hyer and Woods 1998). Only one controlled study utilizing exposure therapy has been conducted; this study of Portuguese war veterans showed a reduction in PTSD, depression and anxiety symptoms compared to controls receiving virtual reality treatment (Gamito et al. 2010). Relaxation training may be beneficial, as well, especially in relieving symptoms of sleep disturbance. Eye movement desensitization reprocessing (EMDR) is a newer treatment that has shown some benefit limited to case studies (Böttche et al. 2012). A single controlled study using the narrative life review therapy with imaginal exposure and cognitive reconstruction has shown a significant decrease in PTSD symptoms (Knaevelsrud et al. 2009). There is less data on the effectiveness of psychodynamically oriented individual or group psychotherapy, such treatments focus on mourning loss and processing past and present experiences.

Group therapy has had some evidence of support to normalize the experiences of PTSD and remove the stigma of treatment and has shown to be beneficial for elder survivors of the Holocaust and war veterans (Weintraub and Ruskin 1999). Group therapy may serve to remove stigma, normalize experience among older persons as well.

Conclusion

Although the elderly have lower rates of mental disorders, including PTSD, than younger individuals following a lifetime of exposure to trauma, the rates are substantial and the risk of elder abuse remains high and its long-term consequences not fully understood. The literature on violence toward the elderly underscores the importance of gathering history of exposure to trauma when evaluating the mental status of the elderly.

Clearly, the cumulative effects of trauma throughout the life cycle can have negative effects on the physical, emotional and cognitive and psychological health on elderly patients. Individuals who have endured severe early life trauma whether in childhood or later in life may be at increased risk for psychopathology. Although for many PTSD may resolve, evidence of increased psychological distress does persist. In addition, older individuals who are exposed to violence in old age may be at increased risk for poorer mental health outcomes including PTSD. Given the aging population and the increase health care utilization of these populations, it is especially important to identify and treat these patients.

Most traumatized older individuals do not develop psychopathology following exposure to violence or trauma, suggesting that a resilient pathway may be more common than a recovery pathway (Bonanno 2004). A number of hypotheses have been put forth to explain resilience in older adults (Elmore et al. 2011). The vulnerability theory suggests that older adults have a varied and extensive accumulation of life experiences that affect both short and long term outcome to trauma. The stress inoculation hypothesis suggests that early life trauma fosters resilience to subsequent trauma. One path is direct tolerance, where exposure to a stressor may lessen the effect of that stressor in the future. The second path is cross-tolerance, whereby prior exposure to a stressor may lessen the effect to a different stressor in the future. The burden hypothesis argues that neither the elderly nor younger populations should be most affected by trauma, but the middle-aged individuals who experience the greatest disruption and demands on their time as providers. The maturation hypothesis posits that older adults have more mature coping styles and therefore they are less reactive to stressful life events. At present, this theory appears to have little support. Another theory that tries to explain resilience in the elderly exposed to trauma suggests that the less resilient survivors of trauma have died before reaching old age leaving behind a healthier cohort, a mortality effect or a survivor bias.

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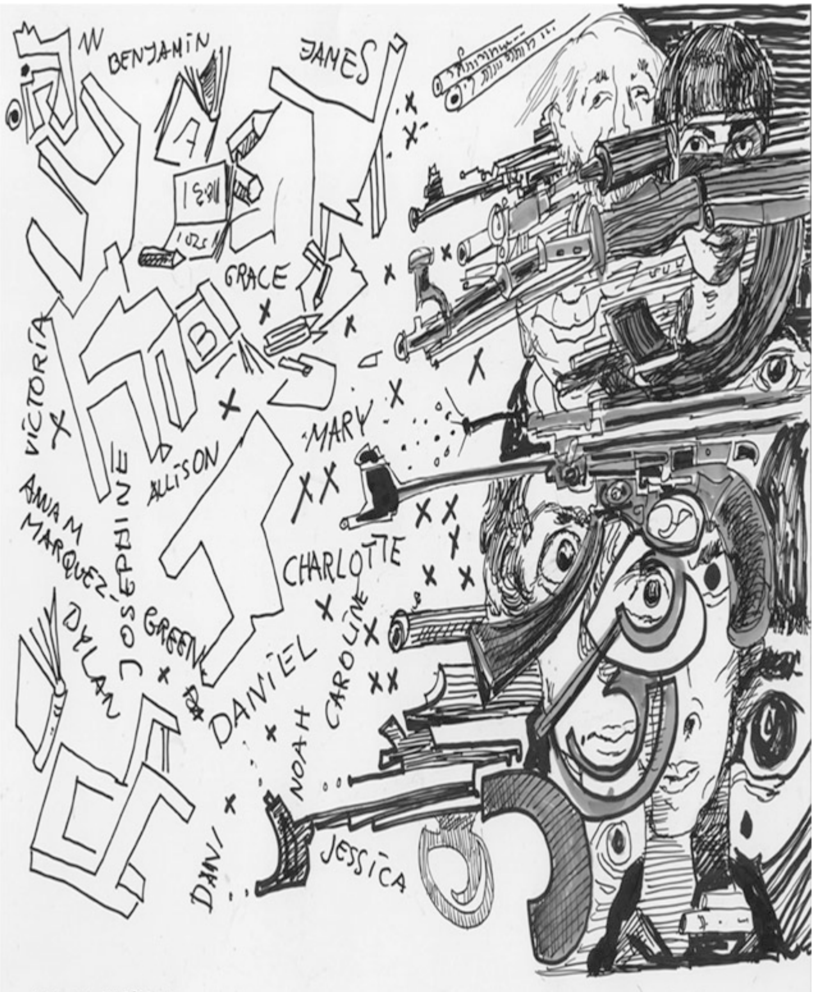
Part IV
Violence in Communities



The Newton massacre in Poland. Sketch by artist Hans Guggenheim

Chapter 9
Bullying in Schools: Rates, Correlates and Impact on Mental Health

Sheryl A. Hemphill, Michelle Tollit, Aneta Kotevski, and Ariane Florent

Introduction

This chapter provides an overview of the international research on bullying in schools with a particular focus on the negative mental health effects. We recognize 3 main groups of students: students who bully others, students who are bullied by others, and students who do both. We begin by defining bullying as it occurs in schools and note challenges in defining bullying, especially given the emergence of cyber bullying (which itself has implications for schools). Next, we review the research literature for each of the above 3 student groups in terms of the rates of these behaviours, the factors that predict whether a student engages in these behaviours, and the effects of these behaviours with a focus on mental health. Along the way, we comment on the methodological limitations of the research to date. Next, theoretical frameworks for bullying in school, and in particular, the links between bullying and mental health are described and it is noted that this is an area for further development in the literature. We then review prevention and early intervention programs which are designed to promote mental health and reduce bullying. In the concluding section, we summarize the issues confronting the bullying in schools research literature and highlight some areas where future research is likely to be particularly illuminating.

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Defining Bullying

The most accepted and widely used definition of bullying in schools includes 3 main features:

- Aggressive behaviour that is intentional.
- The aggressive behaviour is repeated.
- There is a power imbalance between the student who does the bullying and the student who is bullied, with victims often being unable to easily defend themselves from perpetrators (Olweus 1993).

However, it is increasingly recognized that the conceptualization and measurement of bullying can be difficult, particularly when trying to capture the repetitious nature and power imbalances reflected in current definitions (Dooley et al. 2009; Grigg 2010). Bullying can be covert (e.g., exclusion, spreading rumors) or overt (e.g., verbal and physical abuse). Cyber bullying is often described as an extension of bullying in schools or so-called “traditional” bullying, with similar defining features to bullying in schools. Cyber bullying is also often considered a specific form of covert bullying that involves the use of electronic devices to carry out bullying but can also be overt (e.g., deliberate cyber stalking, sending derogatory or hate mail) (Spears et al. 2009). Electronic media such as computers, mobile telephones and tablets are used by young people to bully, embarrass, exclude or humiliate others, via methods such as email, chat-rooms, social networking sites, instant messaging, websites, telephone calls, video and text messaging (Cross et al. 2009; Smith et al. 2008). Although cyber bullying may not occur in schools, it may still have implications for schools when students bring into school events that began on the internet.

The emergence of cyber bullying has presented a number of challenges for the prevailing definitions of bullying in schools. For example, how is a power imbalance defined over the internet? Is it necessary for cyber bullying to occur more than once given that bullying through the internet may have a profound impact even if it occurs only once? The effects of that one instance of cyber bullying can be far greater than prolonged off-line bullying. These are challenges researchers are currently trying to address. Much work remains to be done to clarify the key components of bullying in schools given the advent of cyber bullying.

As outlined in the Introduction, in this chapter we recognise different groups of students who engage in bullying behaviour or are recipients of such behaviour.

- Students who bully only (perpetrators only).
- Students who are bullied only (victims only).
- Students who are both bullied and bully others (both perpetrators and victims).

Increasingly, another group is recognised, that of bystanders. These students do not engage in bullying nor are they the receivers of bullying, however, they are present when bullying occurs and often choose not to stop the bullying or in some cases encourage the student who is bullying others. While we acknowledge the existence of this group of students and their role in bullying situations, they will not be a focus of our review in this chapter.

As highlighted bullying, remains a social problem, however the extent to which it proves problematic is uncertain, given the complexities associated with the measurement of bullying. In addition, a range of factors influence our ability to compare the incidence of bullying across studies. The way in which bullying is measured has been known to differ across studies (Solberg and Olweus 2003), particularly in terms of the varied definitional features used in the measurement of bullying. In addition, the time frame by which respondents are asked to report bullying also differs across bullying instruments, as do the behavioural indicators used to constitute bullying in such surveys. There is further diversity in the way in which bullying scales are presented. Some researchers choose to clearly define bullying before measuring the bullying acts, whilst others refrain from defining (or at times even mentioning the term) bullying, but rather operationalize bullying by asking participants to rate their involvement in a predetermined list of aggressive behaviours. In addition, the timing of the administration of the bullying survey has been considered important in influencing incidence rates of bullying (Smith 2011). Given that such disparities exist in the measurement and definition of bullying across studies, drawing conclusions about the prevalence rates of bullying over time is difficult. Likewise, the extent to which young people are perpetrators and victims of cyber bullying is questionable, as the calculation and measurement of prevalence rates of cyber bullying presents further challenges. As technology is constantly evolving, cyber bullying continues to manifest in many different ways. Therefore, it is important to consider that the calculation and comparison of prevalence rates of cyber bullying across time and across studies is difficult, due to the historical changes in the measurement and definitions of cyber bullying (Rivers et al. 2011). Nonetheless, researchers have reported rates of bullying; however these studies have been based on cross-sectional studies. Results from such research confirm that bullying is an international phenomenon, with rates differing considerably across countries (Due et al. 2005). Rates of bullying will be highlighted in the remainder of the chapter as they relate to the 3 bullying subgroups: bullies (perpetrators), victims, and bully-victims.

Bullying-Perpetrator

A bully is *someone who repeatedly attacks another individual who does not fight back* (Berger 2007, p. 96).

Rates and Patterns of Bullying Perpetration

Nansel et al. (2001) surveyed over 15,000 American students across grades 6–10 (ages 12–16). Of the 29.9 % of the sample who indicated some form of engagement within the bully situation, 13.0 % appeared to take on the bully role. Further, the frequency of bullying increased through grades 6–8 compared to students in grades 9 and 10.

The Health and Behaviour in School-age Children (HBSC) 2001/2002 international report found that overall, approximately 35.0 % of young people were involved in bullying others at least once during the previous couple of months. Of this group, 14.0 % engaged in fighting, 9.0 % engaged in fighting and bullying, while 8.0 % engaged in bullying alone.

These rates vary substantially by age, countries and regions: 9.0–54.0 % for 11 years, 17.0–71.0 % for 13 year olds and 19.0–73.0 % for 15 year olds. The mean percentages for the 3 age groups are 30.0 %, 38.0 % and 36.0 % respectively. Austria, Estonia, Germany, Latvia, Lithuania, Switzerland and Ukraine are consistently in the top quartile across all age groups, and the Czech Republic, Ireland, Scotland, Slovenia, Sweden, The Former Yugoslav Republic of Macedonia and Wales are in the lowest quartile.

In all countries and regions and all age groups, boys report bullying others more often than girls. In most countries and regions, the higher increase in reported bullying occurs between ages 11 and 13. Further, across all age groups, 10 countries and regions show an increase with age; 3 show similar rates (Belgium (Flemish), Belgium (French) and Greenland) and 2, a decrease with age (Israel and Norway).

In 2005, Due et al. (2005) also demonstrate from their survey across 28 European and North American countries that bullying is an international phenomenon, where rates vary considerably across countries. Prevalence of bullying was reported to range between 5.1 % (girls) – 6.3 % (boys) in Sweden, to 38.2 % (girls) and 41.4 % (boys) in Lithuania. This appears consistent with the HBSC 2001/2002 research.

Regarding the prevalence of cyber bullying, in their national US study of 10- to 17-year olds, Ybarra and Mitchell (2004) reported that 15.0 % of their sample had engaged in online harassment behaviour. In Cross et al. (2009) national Australian study of 8- to 14-year-olds, it was revealed that for all forms of bullying, including cyber bullying, 11.0 % of boys and 7.0 % of girls had participated. Rates for cyber bullying alone were 3.8 % for boys and 3.3 % for girls.

More recently, Hemphill et al. (2011, 2012b) present one of the first 3-year longitudinal studies reporting on differential bullying and victimisation rates within a sample of students in mid- to later- adolescence. The results showed that the most common form of bullying in grades 9 through grades 11 was relational aggression, with up to 72.0 % of boys and 65.0 % of girls in grade 9 reporting that they engaged in relational aggression. In grades 9–11, rates of traditional bullying perpetration and relational aggression were higher in boys than girls. Across time, gender differences in rates of traditional bullying perpetration increased in boys and girls from grades 9 to 11, while relational aggression decreased over time in both girls and boys. The most common combination of bullying subtypes across grades 9–11 was traditional bullying and relational aggression across the entire sample. Such rates increased over time.

Interestingly, Hemphill et al. (2011, 2012b) found a high rate of relational aggression amongst boys. This was contrary to expectation as relational aggression was originally conceptualised as a form of aggression characterised by behaviours engaged in mostly by girls (Crick and Grotpeter 1995). However, it was found that 72.0 % of boys and 56.0 % girls in grade 9 reported relational aggression engagement (Hemphill et al. 2011, 2012b). This difference in findings requires further analysis that accounts for age, school level and investigative methodologies (e.g., peer nominations vs. survey).

The existing overt bully/aggressor literature suggests an inverse relationship between age and bully perpetrator behaviour. However, Hemphill et al. (2011, 2012b) found that the role of the bully within the traditional context increased in both sexes from grades 9 to 11. Again, further investigation accounting for methodological differences is required. For example, such an outcome may reflect the lack of research cohesion around the operationalization of the bullying construct.

Predictors of Bullying Perpetration

Risk factors of bullying perpetration have been extensively studied. A common research finding is that having a history of involvement in bullying or aggressive/antisocial behavior increases the likelihood of engagement in subsequent future bullying perpetration. For instance, prior engagement in relational aggression, which in itself is considered a subtype of bullying (Van der Wal et al. 2003), is predictive of both traditional and cyber bullying perpetration when measured 2 years later in year 9 (Hemphill et al. 2012a). Furthermore, being the victim or perpetrator of traditional bullying in year 7 predicted bullying perpetration in year 9 (Hemphill et al. 2012a). Results from a meta-analysis across 153 studies exploring bullying in childhood and adolescence found that externalizing behaviors (“deviant, aggressive, disruptive and noncompliant responses”) were the strongest individual level predictors of being a perpetrator of bullying (Cook et al. 2010). Strong associations have also been noted between bullying perpetration amongst students and violent-related behaviors, such as weapon carrying, frequent fighting and being injured in a fight (Nansel et al. 2003). The odds of being a bully and also engaging in these behaviors are especially high when bullying occurs away from the school environment (Nansel et al. 2003).

Although externalizing problem behaviours have been found to predict being a bully, there is also evidence that internalizing problems such as depressive symptoms are associated with bullying perpetration (Slee 1995). This relationship may be particularly pertinent to boys, given that the association between bullying others and levels of depression differs for boys and girls (Austin and Joseph 1996; Slee 1995). The identification of depression as a predictor of bullying is supported by longitudinal research by Sourander and collaborators (2000) who found that experiencing high levels of depressive symptoms at age 8 predicted bullying perpetration at age 16, as did being male (Sourander et al. 2000).

At the school level researchers have found that attending a school with a positive climate and being connected to school is associated with a lower risk of involvement in bullying perpetration (Williams and Guerra 2007). School suspension may also be related to bullying perpetration as it has been shown to increase the likelihood of other violent (Hemphill et al. 2009) and antisocial behavior (Hemphill et al. 2006) at 12 month follow-up, independently of other established risk factors. Researchers have also highlighted a link between poor scholastic achievement and problem behaviors including bullying at school, with academic failure (at Year 7) found to predict traditional bullying perpetration (at Year 9) (Hemphill et al. 2012a, b).

Family conflict is also an established predictor of youth violence and physical aggression (Hawkins et al. 2000; Hemphill et al. 2009; Herrenkohl et al. 2000). In a study by Hemphill et al., family conflict at year 7 was considered a predictor of traditional bullying perpetration 2 years later (Hemphill et al. 2012a, b). Such findings suggest that young people living in a home environment characterized by conflict may themselves engage in problem behaviour, including bullying, in other contexts (Farrington and Ttofi 2011; Hawkins et al. 2000; Hemphill et al. 2009; Herrenkohl et al. 2000). This is further supported by studies which have indicated that being exposed to domestic violence predicts being a bully, particularly when mothers are violent towards fathers (Baldry 2003). Furthermore, in the family context high parental support is negatively related to physical, verbal, relational and cyber bullying perpetration (Wang et al. 2009), whereas having a poor emotional bond with a caregiver increases the likelihood of being involved in online bullying perpetration (Ybarra and Mitchell 2004). Poor family management (reflected by lack of clear rules and monitoring of students) is also an established risk factor for violent and antisocial behaviors (Hawkins et al. 2000; Hemphill et al. 2009; Herrenkohl et al. 2000).

The impact of peers on bullying have also been studied and found to be influential on bullying. In particular, peer influences which impact on the adjustment of young people (e.g. associating with antisocial friends and being involved in prosocial group activities) have been noted as strong predictors of bullying perpetration amongst children and adolescents (Cook et al. 2010).

Outcomes of Bullying Perpetration

Bullying others has been linked to a number of adverse outcomes, with behavioural and psychosocial outcomes commonly cited. Much research is available which suggests that being involved in bullying at school increases the likelihood of future engagement in externalising behaviours such as antisocial behaviour, violent or offending behaviour. In a study by Hemphill and collaborators (2012) which explored the short-term longitudinal psychosocial consequences of traditional bullying among Victorian students in the mid to late secondary school years, it was found that traditional bullying perpetration in year 10 predicted multiple future psychosocial outcomes such as theft, violent behaviour and binge drinking when assessed a year later (Hemphill et al. 2012). In addition, child and adolescent perpetrators of bullying are at heightened risk for later criminality (Sourander et al. 2006) and recidivist criminality in later years (Olweus 1993, 1999). In a longitudinal study by Olweus, it was found that over half of young people who were classified as bullies in grades 6–9 were later convicted of crime by age 24, with 35–40.0 % of bullies being convicted of multiple criminal offences (Olweus 1993, 1999). Cross-sectional studies have also highlighted that perpetration of bullying by young people is associated with increased risk of medically treated injuries when assessed across multiple European countries, the USA and Canada (Pickett et al. 2002). Furthermore, bullying perpetrators at school have been found to experience health problems, emotional adjustment difficulties, social and school adjustment problems, as well as use of alcohol to a greater extent than their non-involved peers; a finding which was consistently found in various European countries, the USA and Canada (Nansel et al. 2004). There is further evidence that frequent bullying perpetration at school is associated with an increased risk of having self-harming thoughts, particularly around suicidal ideation (Kaltiala-Heino et al. 1999). As these later studies are based on cross-sectional data, we are limited to drawing causal inferences about the direction of such relationships.

Traditional bullying perpetration has also been associated with a number of other long term mental health adversities, in the form of internalising problems similar to those of bullying victimisation. Gibb and collaborators (2011) noted long term consequences of bullying perpetration at age 13–15 years, including mental health and adjustment problems at age 16–30 years (Gibb et al. 2011). Higher rates of internalising problems (major depression, suicidal ideation, suicide attempt), alcohol and illicit substance dependence, as well as externalising problems (violent offending, property offending and arrests/convictions) at ages 16–30 were noted for those who bullied others in adolescence, as compared to those who did not (Gibb et al. 2011). Furthermore, young people engaging in bullying perpetration at school are more likely to experience increased aggression over time (Kim et al. 2006).

Bullying Victimization

According to Olweus (1994) *a student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students* (Olweus 1994, p. 1171). As bullying can be both overt and covert nature, it is possible that young people may initially be oblivious to being the victim of bullying. This is especially true when it comes to cyber bullying.

Rates and Patterns of Bullying Victimization

Rates of bullying victimisation have been found to vary across countries and settings. In a cross national sample of schools across Europe and North America, a large variation in the rates of victimisation were reported. Students in Sweden reported the lowest rates of bullying victimisation (5.1 % for girls and 6.3 % for boys) as compared to students from Lithuania who reported the highest rates (38.2 % for girls and 41.4 % for girls) (Due et al. 2005). A US national survey indicated that approximately 32.0 % of students aged 12–18 reported being victimized at school via traditional bullying methods, with rates of cyber bullying being much lower (3.7 %) (National Center for Educational Statistics: Institute of Education Sciences 2011). In another study reporting rates of bullying victimization amongst a national representative sample of US students, it was found that up to 8.4 % of the sample were frequently bullied (weekly) (Nansel et al. 2001). A national Australian study of 8- to 14-year-olds found that rates of being bullied ranged from nearly 24.0 to 29.0 %. Males and females reported similar rates of victimization, with 27.0 % and 26.0 % of males and females respectively reporting being victimized (Cross et al. 2009). In a longitudinal study which surveyed approximately 800 students from Victoria, Australia, rates of traditional bullying victimization were reported to be 28.0 % in year 9. These rates rose to almost 39.0 % 2 years later as measured in year 11. However, rates of cyber bullying victimization remained relatively stable from year 9 (14.0 %) to year 11 (13.4 %) (Hemphill et al. 2012a, b).

Results from various studies highlight a general trend for the rates of bullying victimization (including frequent victimization) to decline with age of the victimized person (Due et al. 2005; Nansel et al. 2001; Olweus 1994). The persistence of bullying victimization has also been explored with results from studies suggesting that being the victim of bullying can extend over multiple years. For instance, being bullied at age 8 was associated with bullying victimization 8 years later, with approximately 90.0 % of boys who reported being victims at age 16 also being victims at age 8, as compared to about 50.0 % of females who reported being a victim of bullying at age 16 also victims at age 8 (Sourander et al. 2000). In a study by Kumpulainen and collaborators (1999) it was noted that although the number of students involved in bullying declined from age 8 to age 12, many children shifted their bullying status over this time. For instance, 9.4 % of children who were bullied at age 8 were then bullying other children at age 12, whereas 7.2 % of those bullied at age 8 experienced both perpetration and victimization at age 12 (Kumpulainen et al. 1999). Such information illustrates the important interplay which operates between the different bullying subtypes over time.

Various studies have also provided evidence that rates of bullying victimization are higher for males than females, however at times gender differences have been minimal (Due et al. 2005; Kumpulainen et al. 1999). Males have also been found to be bullied more frequently than females (Nansel et al. 2001).

These noted trends in the rates of bullying victimization may in fact be specific to the bullying subtype investigated. For instance, research suggests that there are higher portions of females being bullied by technology (7.7 %) as opposed to males (5.2 %) (Cross et al. 2009). Likewise, it has been found that rates of cyber bullying victimisation consistently increase from year 4 to year 9 (Cross et al. 2009). These results suggest that males are more likely to be subjected to traditional forms of bullying victimisation, whilst females may be exposed to cyber bullying victimisation more so than males. Given that such disparities exist, it is important for such differences to be reflected in the measurement of bullying.

Predictors of Bullying Victimization

A range of factors predict bully victimisation amongst youth. These span across individual, family peer and school domains. Mental health factors such as experiencing internalising problems and displaying externalising behaviours have often been cited as predictors of bullying victimisation. In particular young people who experience internalising problems such as emotional problems are often considered more likely to experience bullying victimisation. A study by Hodges and Perry (1999) found that internalising problems (i.e. withdrawal and anxiety-depression) amongst children and early adolescents contributed to bullying victimisation over a 1 year period (Hodges and Perry 1999). Likewise, students who were identified as victims of bullying at age 5–7 experienced more internalizing problems prior to bullying as compared to their peers (Arseneault et al. 2006). Internalising problems such as high levels of depressive symptomology at age 8 have also been associated with later bullying victimisation over an 8 year period (Sourander et al. 2000). Finally, having a low self-regard was also found to predict later victimisation by peers when assessed longitudinally (Egan and Perry 1998).

Externalising behaviours have also been linked to bullying victimisation. Physical aggression in preschool (early childhood aged 17 months) has been found to predict childhood peer victimisation trajectories (Barker et al. 2008). Furthermore, young people who became victims of bullying between the ages of 5 and 7 experienced more externalising problems (aggression and delinquency) than their peers. This association was only true for girls (Arseneault et al. 2006). The results of a cross-sectional study also revealed that being bullied in school and away from school was associated with violent behaviour such as weapon carrying, fighting and injuries sustained from physical fights (Nansel et al. 2003). Given that these findings are based on cross-sectional data the temporal ordering of these factors is questionable.

Family influences are also known to shape young people's behaviours and experiences, including their experiences of bullying. Therefore, understanding the role that families play in predicting bullying victimisation is crucial to developing a systemic and holistic approach to address bullying. Children residing in home environments characterised by violence and marital conflict (i.e. are exposed to domestic/interparental violence) (Baldry 2003; Beran and Violato 2004) and children who are maltreated at home (Shields and Cicchetti 2001) are at greater risk of being victimised by their peers at school. As noted, mental health problems encountered by young people are predictors of bullying victimisation. Likewise, parental mental health problems such as depression (Beran and Violato 2004) have also been linked to school bullying victimisation amongst youth. Again, these associations between family level factors and bullying victimization are based on cross-sectional data.

In addition to individual and family influences, experiences at school have long been studied in relation to bullying as the school environment is a prominent context in which bullying occurs. School factors have been identified as predicting being a victim of bullying. School climate in particular predicted bullying victimisation amongst children and adolescents (Cook et al. 2010). It has been reported that young people who are victims of bullying are generally more unhappy at school in the early years as compared to their peers (Arseneault et al. 2006).

It is not surprising that peer factors are associated with bullying victimisation, given that bullying is often facilitated through social interaction with peers and that bullying is often conceptualised as a relationship problem (Pepler et al. 2004; Spears et al. 2009). Furthermore, as bullying often occurs in the school context amongst peers, it is expected that peer-relational factors impact on bullying experiences. In a meta analysis of 13 commonly referred to individual and contextual predictors of bullying across 153 studies, it was found that peer status (*quality of relationships children and adolescents have with their peers* p. 67) had the strongest effect in predicting victimization status amongst children and adolescents (Cook et al. 2010). Peer rejection has also been found to be associated with peer victimisation, as has being disliked by peers (Beran and Violato 2004; Hodges and Perry 1999). In the meta-analysis reported by Cook and collaborators (2010) "social competence" also had a relatively large effect size in relation to being victimised (Cook et al. 2010). Similarly, Egan and Perry (1998) found that young people with poor social skills are at greater risk of experiencing peer bullying victimisation, particularly when they also had a low self-regard (Egan and Perry 1998).

Although individual, family, school and peers factors have been noted to put young people at increased risk of bullying victimization, it is also possible that victimization may contribute to young people further experiencing these same adjustment difficulties as a consequence of being the victim of bullying. For instance, in a study conducted by Egan and Perry (1998) self-regard (peer social competence) was found to predict bullying victimisation, but victimisation was also found to predict later self-perceived peer social competence (Egan and Perry 1998). A second study noted similar findings. Hodges and Perry (1999) found that internalising problems, physical weakness and peer rejection predicted victimisation 1 year later. Furthermore, victimisation also predicted internalising problems and peer rejection 1 year later (Hodges and Perry 1999). These findings illustrate that young people who experience adjustment issues early in life may be immersed in a vicious cycle incorporating early adjustment problems which lead to being bullied, which then results in experiencing further adjustment difficulties as the result of being bullied. Few studies have empirically tested such reciprocal relationships over time as the longitudinal data needed to test these relationships are often scarce. Nonetheless it important to consider both the antecedents and consequences of bullying to truly understand the complex nature of this social problem that occurs in schools. The consequences of being bullied will now be discussed.

Outcomes of Bullying Victimization

The impact of being bullied often affects the physical, social and emotional wellbeing of those being victimised. Bullying can be severely violent in nature, and so, bullying can have detrimental physical health consequences on the victims of bullying. There is also vast evidence to support that young people who are victims of bullying also experience adjustment issues and mental health problems in the short and long term. Findings from both cross-sectional and longitudinal studies have highlighted the association between bullying victimisation in childhood and adolescence and a range of mental health problems, of which self-harming behaviour, violence and psychotic symptoms have been included (Arseneault et al. 2010). However, the temporal ordering of these relationships is sometimes questionable when reliant on cross-sectional studies. We focus on describing findings from longitudinal studies which have highlighted the association between bullying victimization and experiencing later mental health problems.

There is a tendency for those who are bullied to be at increased risk of experiencing future internalising problems (e.g. being withdrawn, somatic complaints, anxious/depressed) (Arseneault et al. 2006; Hodges and Perry 1999). In a study conducted by Bond et al. (2001) it was found that being victimised in year 8 (age 13) was associated with anxiety and depressive symptomatology in the preceding year (Bond et al. 2001). This longitudinal association has also been examined in the later school years. Being victimised (via traditional bullying methods) in year 10 has been associated with depressive symptomology in year 11 (Hemphill et al. 2012). Likewise, Tfoti and Farrington (2011) found that depression may be considered a long term consequence of being bullied at school, even when assessed up to 36 years post bullying victimization and controlling for a range of other childhood risk factors (Ttofi and collaborators 2011). There is further evidence that being bullied at school (as assessed retrospectively) is associated with a greater likelihood of having a diagnoses of depression when assessed much later in life (31–51 years) (Lund et al. 2008).

Higher rates of both internalising and externalising problems have been noted between the ages of 16–30 amongst students who were bullied at age 13–15, of which major depression, anxiety disorder, alcohol dependence, illicit drug dependence, conduct disorder/antisocial personality disorder, violent offending, property offending, arrest/conviction have been included (Gibb et al. 2011). In addition to the link between bullying victimisation and later internalising problems, bullying victimisation has also been associated with increased risk of experiencing externalising problems, particularly for girls (Arseneault et al. 2006).

Given the social nature of bullying, research exists which suggests that those being bullied also suffer socially, with many at increased risk of experiencing peer rejection over time (Hodges and Perry 1999). According to Kim and collaborators (2006), young people who are bullied in 7th grade are also at greater risk of experiencing social problems 10 months later (Kim et al. 2006). Likewise, it has been suggested that students who are victims of bullying between the ages of 5 and 7 exhibit less prosocial behaviour at age 7 (Arseneault et al. 2006). Furthermore school experiences, such as happiness with school and with peers are affected by bullying victimisation (Arseneault et al. 2006).

Long term exposure to bullying victimization may also be fatal, as evidenced by reports around the world of young people committing suicide as the result of being bullied (Berger 2007). Furthermore, higher rates of suicidal ideation and suicide attempts have been noted amongst students who were bullied between the ages of 13–15 compared to students who did not report being bullied, when these outcomes were measured amongst participants aged 16–30 (Gibb et al. 2011).

These very serious consequences of being bullied emphasise the importance for schools to have practices and services in place to offer support and to educate young people about how to productively cope with bullying, in order to minimise the impact of the bullying experience.

Bullying Perpetration and Victimization

As the name suggests, a bully-victim is someone who is simultaneously a perpetrator of bullying but is also a victim of bullying (Berger 2007).

Rates and Patterns of Bullying Perpetration and Victimization

Nansel et al. (2001) surveyed over 15,000 American students across grades 6–10 (ages 12–16). Of the 29.9 % of the sample who indicated some form of engagement within the bully situation, 6.3 % reported concurrently being both the bully and the victim. Further, males were more likely than females to occupy this dual role.

The Health and Behaviour in School-age Children (HBSC) 2001/2002 international report found overall, that 35.0 % of their sample indicated no aggressive behaviours. Interestingly, 24.0 % of the sample engaged in fighting or bullying and victimisation concurrently.

More recently, Hemphill et al. (2011, 2012b) present one of the first 3-year longitudinal studies reporting on differential bullying and victimisation rates within a sample of students in mid- to later- adolescence. It was found that 10.0 % of the sample fell within the bully/victim role, within both the traditional and cyber contexts. However, for the traditional bully/victim category this percentage rose to 27.0 % for those in grade 11 (Hemphill et al. 2012).

Predictors of Bullying-Victimization

Family and peer factors have also been studied as correlates of bully-victim status. It has been found that parenting characteristics such as being rejected by parents, as evidenced by displays of hostility and punishment impact on being a bully-victim at school, compared to young people who neither bully or are bullied (Veenstra et al. 2005). Also parental vulnerability to psychopathology, particularly externalizing disorders was associated with being a bully-victim at school (Veenstra et al. 2005). Peer factors such as peer status and peer influences have also been identified as strong contextual predictors of being a bully-victim in childhood and adolescence (Cook et al. 2010). Furthermore young people reported higher levels of avoidance behaviour toward bully-victims peers (as compared to bullies, victims, uninvolved or other youth) as indicated by peer nomination (Juvonen et al. 2003).

Bully-victims also present with higher rates of school refusal behaviour (Kumpulainen et al. 1998) and school disengagement (Juvonen et al. 2003) compared to peers. They also experience interpersonal problems (including “fighting fatigue, loneliness, reduced social interest, somatic concerns”) and ineffectiveness (including “pessimism, self-depreciation, school-work difficulty, self-blame, indecisiveness”) to a greater degree than their peers (Kumpulainen et al. 1998). These results from multiple research studies suggest that bully-victims are confronted with an array of psychosocial difficulties. As such, engaging in the role of a bully-victim may have serious ramifications for such young people. These will now be discussed.

Outcomes of Bullying Perpetration and Victimization

It has been suggested that young people who maintain the dual role of bullying others and are also victims themselves experience greater levels of adjustment difficulties as compared to peers who maintain a single role in the bullying dynamic (Arseneault et al. 2010). A study by Kumulainen and Rasanen (2000) revealed that students who were bully-victims at age 8 had higher levels of psychiatric symptoms and were at heightened risk of being deviant at age 15, as compared to non-involved students (Kumpulainen and Rasanen 2000). Consistent with this, Kim and collaborators (2006) also found bully-victims at Grades 7 and 8 were at much greater risk of experiencing aggression and externalizing problems 10 months later, with odds ratios of 4.9 and 4.6 noted respectively for these consequences (Kim et al. 2006). Long term consequences of being a bully-victim in childhood include increased likelihood of being involved in multiple criminal offenses at age 16–20, with traffic offenses most likely amongst this group (Sourander et al. 2007).

Young people classified as bully-victims in childhood (age 5–7) also experienced more externalising problems and exhibited poorer prosocial behaviours as compared to victims and peers not involved in bullying (Arseneault et al. 2006).

Although externalising behavioural problems have commonly been cited as consequences of being a bully-victim, this group have also been linked to internalising problems in the short and long term. Bully-victims in early adolescence (age 13) have been found to experience higher levels of internalizing problems such as depression, low self-esteem, failure expectations and self-harm compared to peers who were not involved as a bully or a victim, when assessed up to 2 year later (Ozdemir and Stattin 2011). Bully-victims are at increased risk of persistent suicidal ideation as compared to non-involved peers (Kim et al. 2009).

Bully-victims have been found to encounter school adjustment difficulties. For instance lower academic performance and reading efficiency have been noted amongst bully-victims at age 7 compared to students who were considered victims only, or alternatively not involved at bullying at all. In addition, bully-victims also seem less happy at school as compared to peers (Arseneault et al. 2006).

Theoretical Framework to Explain Bullying and Links to Mental Health

Despite the extensive research literature on bullying in schools, there is no one established theory to explain the development of bullying and in particular how it impacts on mental health. To date, research on bullying in schools has focused on describing the phenomena rather than explaining it. Hence, there is no one accepted theory of bullying in schools, rather researchers tend to draw on one of many different psychological theories, such as Social Learning Theory, Social Cognitive Theory, Evolutionary Psychology and the list goes on. Like most complex and similar behaviours (e.g., violence) it is likely that a tripartite model that recognises there are multiple influences on the development of bullying including (1) biological/genetic; (2) psychological characteristics of the student; and (3) social environment to which the student is exposed. Much more research remains to be done to adequately develop a theoretical understanding of bullying in schools. The book chapter by Dixon and Smith (2011) is a novel attempt to provide an integrated theory of bullying in schools. Further theorising and research of this nature is needed in this field of research, particularly in relation to how bullying in schools relates to mental health.

What Can Be Done to Reduce Bullying? What Can Schools Do?

There exists an abundance of prevention and intervention strategies and programs reported in the research literature that aim to reduce bullying perpetration, victimisation and wider antisocial behaviours. These range from parental education and training programs to improving community safety and the school environment. The most common types of intervention include school anti-bully policies, school programs targeting families, teachers and peer groups about the impact of bullying on an individual's emotional and psychological health, and individual social skills and assertiveness training. Schools are also increasing their attention on the school climate. Teachers are playing a greater role in recognising when bullying occurs through supervision of social/play areas where much of the bullying can take place. Other schools have introduced peer support groups that teach students how to stand up to bullies. This is particularly targeted for victims of bullying, providing those affected with skills in assertiveness and social interaction.

Many anti-bullying interventions have taken place in Norway (Olweus programme), UK, Australia, Belgium, Canada, Germany, Finland, Ireland, Italy, Spain, Switzerland and the USA (Monks and Coyne 2011; Smith et al. 2004). Much of the literature focuses on prevention and intervention programs utilising indirect and direct approaches. A whole school approach has provided encouraging results in reducing bullying; however is limited by the paucity of strong evidence of its overall effectiveness and sustainability (Tangen and Campbell 2010; Swearer et al. 2010). The whole school approach takes into account different facets of bullying prevention and intervention including the quality and style of leadership and management in schools and its curriculum, school activities, the quality of teacher supervision, and anti-bullying policies. Researchers posit that this indirect approach is limited by the exclusion of direct intervention for the perpetrators, who require strategies to engage in more prosocial behaviours (Smith et al. 2004; Swearer et al. 2010; Vreeman and Carroll 2007).

Schools who adopt a direct approach to managing bullying often require that teachers are skilled in detecting incidents of bullying and deal directly with the perpetrator(s) and victim(s). However, several issues evolve from the direct approach such as the teacher's skills and training in managing bullying behaviour as well as their moral standing in response to the bullying. Another view supports that bullying should not only be addressed directly with those involved, but should be considered in the wider social context. This view is supported by Luiselli et al. (2005) who identified the need for social skills training, promotion of social competency (by teaching students how to interact more effectively with peers and adults through enhanced conflict resolution, developing problem solving skills), developing skills in negotiation, and developing friendship-building abilities.

Although much of the literature has investigated the nature and impact of traditional forms of bullying in the schoolyard and in the classroom, many students are now also exposed to cyber bullying. Young people engage in cyber bullying to harm others repeatedly via technology including social networking sites (e.g., facebook, twitter), websites, web cameras and mobile phones. This has presented a new set of challenges for schools: students can readily contact each other through this technology allowing victims to be reached anytime and anyplace. Secondly, cyber bullying is often covert and the perpetrator can remain anonymous reducing the likelihood of being detected or reprimanded by teachers and parents. Therefore, many bullying incidents go unreported. Furthermore, bullies can spread rumours or insults quickly to a large amount of people in a short amount of time. This type of bullying is difficult for the victim to defend themselves and is almost impossible for the school to contain.

Even though there have been various school-based interventions that have been evaluated and contributed to the reduction of bullying in schools, bullying continues to remain a significant issue for schools impacting on young people and their school experience. So what can schools do? There is some consensus that bullying prevention and intervention need to be introduced in the early school years and should be reviewed in on-going and consistent fashion, regularly practiced in schools, facilitated by teachers and supported by family or significant others (Swearer et al. 2010). There is not one prevention or intervention strategy that has been found to be effective in schools, however there is growing evidence to support a multi-factorial approach to ameliorating the problem. Bullying prevention and interventions should address the systems directly affecting children and adolescents including families, schools, peer groups, teacher–student relationships, parent–child relationships, parent–school relationships, neighbourhoods, and cultural expectations (Swearer et al. 2010). Although this holistic perspective has been studied in such areas as school violence, the application of this framework in the bullying area is in its infancy. Future research is warranted to investigate whether this can significantly reduce attitudes and perceptions supportive of bullying and also can create meaningful and sustainable behaviour change amongst young people.

Conclusion

An extensive literature on bullying in schools has been built through over 40 years of research. This research has shown us that bullying is common, that there are a number of factors in a student's life that predict who does the bullying and who is bullied, and that it is associated with poor mental health, as well as a range of costs to students, families, schools, and the broader community.

Despite this research, there are a number of areas that require further research. First, the advent of cyber bullying has strengthened questions about the conceptualisation and definitions of bullying. For example, how is a power imbalance defined over the internet? Is it necessary for cyber bullying to occur more than once given that bullying through the internet may have a profound impact even if it occurs only at one time. These are important questions that the field of bullying research will need to address in coming years.

Clarifying the definition and conceptualisation of bullying in schools will no doubt improve the measurement of bullying and this will assist researchers to calculate more accurate prevalence rates for bullying. Currently, it is difficult to compare the rates found in different studies because they have used different measures and therefore often report very different rates of bullying in schools. Developing psychometrically sound measures of bullying in schools that are grounded in conceptual and theoretical frameworks is likely to result in more accurate estimates of the occurrence of bullying in schools.

Third, much of the research on bullying in schools to date has operated in a theoretical vacuum. There is no one accepted theory of bullying in schools, rather researchers tend to draw on one of many different psychological theories, such as Social Learning Theory, Social Cognitive Theory, Evolutionary Psychology and the list goes on. Like most complex and similar behaviours (e.g., violence) it is likely that there multiple influences on the development of bullying ranging from biological/genetic to psychological characteristics of the individual to the social environment to which the student is exposed. Much more research remains to be done to adequately develop a theoretical understanding of bullying in schools. The book chapter by Dixon and Smith (2011) is a novel attempt to provide an integrated theory of bullying in schools that recognises bullying occurs in a social system (school). Further theorizing and research of this nature is needed in this field of research, particularly in relation to how bullying in schools relates to mental health.

Within the bullying in schools literature, there are increasingly descriptions of 4 main groups:

- Students who do not bully and are not bullied,
- Students who bully only,
- Students who are bullied only,
- Students who are both bullied and bully others.

There is more research required to better understand these different groups. What are the mental health outcomes for students who have been bullied and also bully others? It seems likely that they will be worse than those students who bully only or have been bullied only. Is this group of students who both bully and have been bullied qualitatively different to the other groups? Under what circumstances do students end up in this group?

Cyber bullying has presented many challenges for schools. If bullying occurs outside school grounds particularly over the internet, should schools become involved? This is a question researchers and educators are still grappling with today. Increasingly the answer seems to be that if what happens outside school is likely to have consequences within the school environment, then schools need to know what is going on and how to address it. So, yes, schools do need to make cyber bullying their business. This will be an important area of consideration in future years.

The extensive literature on bullying in schools includes reports on the effectiveness of various prevention and early intervention programs – generally with the aim of reducing bullying but also improving the mental health of students more broadly. However, there remain challenges in this area; a key one is to ensure that knowledge about effective prevention and early intervention programs is disseminated to schools. To date, anecdotally, schools continue to programs that do not have an evidence base. There need to be improved ways of helping schools to make good choices about the programs they use. They also need to monitor and evaluate how the program works in their school – since what works for one school may not work for another.

In conclusion, research on bullying in schools shows that this is a common behaviour, many factors influence whether or not students bully or are bullied, and there are serious mental health effects of bullying on students – many of these long-lasting. More consideration of conceptual and theoretical issues is required in this field. Further, more research is needed to give accurate estimates of the rates of bullying in schools, how students come to engage in bullying, be bullied, or both, and how to minimise the negative mental health effects of bullying on students in the short and long term. By successfully attending to all of this, the rates of bullying in schools and the associated mental health effects can be reduced.

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Chapter 10
Violence Against People with Mental Disorders

Angelo Barbato

Introduction

Historical Overview. The Role of Violence and Punishment in the Origins of Psychiatry

Tie them keeper in a tether
Let them stare and stink together
Both are apt to be unruly
Lash them daily, lash them duly,
Though 'tis hopeless to reclaim them
Scorpion Rods perhaps tame them.

These verses by Jonathan Swift, presenting the instructions to a madhouse keeper, clearly depict, without mincing words, the prevailing attitudes towards madness and its treatment in eighteenth-century England (Swift 1736).

As reported in the thorough historical overview by Scull (1983), madness was then considered a condition that required taming, as the behavior of wild animals characterized by irrational violence, fury and incoherent bestiality. Corresponding to these views of mad people as beasts was an armamentarium of coercive practices aimed at taming their ferocity by harsh discipline, punishments and infliction of physical suffering.

Although such practices were widely used with inmates of lower social classes, in workhouses or privately owned madhouses run for profit, as a consequence of an unregulated 'trade in lunacy' (Parry-Jones 1972), they were employed even in situations where the patients were not lacking in wealth or power.

The most extreme case was represented by the treatment experienced by the king of England George III during his episodes of illness, first diagnosed as 'mania' by

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the clergyman Francis Willis in 1788. A contemporary eyewitness reports that the king *was no longer treated as a human being. His body was immediately incased in a machine which left no liberty of motion. He was sometimes chained to a stake. He was frequently beaten and starved, and at best he was kept in subjection by menacing and violent language*. (Harcourt 1880).

Throughout the eighteenth and early nineteenth century the widespread use of chains in the institutions for the people labeled as mad is well documented. The image of Pinel breaking the inmates' chains at Bicêtre Hospital in Paris is considered a landmark of the birth of psychiatry, although historians showed long ago that it was likely a manufactured myth (Weiner 1994). According to all textbooks, modern psychiatry was born from this action, which freed the insane from restraint. Madness was getting out from the domain of generic segregation and getting into the medicine domain, transforming the insane into a psychiatric patient (Agnetti 2008). The birth of psychiatry was paralleled by the elaboration of a specific form of therapy aimed at introducing a therapeutic goal in the approach to madness, the moral treatment (Scull 1979; Postel 1979). In 1813 Samuel Tuke carefully described the first institution entirely managed according to the principles of the new system: the York Retreat in England (Tuke 1964).

Moral treatment has been for long time described in most psychiatric texts as a by-product of the enlightenment philosophy, a triumph of humanism leading to a rational therapeutic approach in which kindness and patience, along with recreation, walks, conversations and manual labour within an orderly environment, replaced brutal coercion (Bynum 1974). The advocates of milieu therapy in the 1950s and 1960s considered moral treatment as an earlier version of the therapeutic community (Carlson and Dain 1960). Later, occupational therapy (Peloquin 1989) and even the recovery movement (Shepherd et al. 2009) claimed its legacy.

However, it is worth noting that the current meaning of the term "moral" in the sense of "ethical" does not reflect its use three centuries ago. The words "moral treatment" was not synonymous with "kind treatment". They were taken in a broader sense of "psychological treatment" as opposed to "physical treatment", as in the title of the book by the French doctor and philosopher Pierre Cabanis *Rapports du physique et du moral de l'homme,* published in 1802.

Therefore, the view of moral treatment as an exclusively humanitarian approach opposed to any form of violence and control is misleading. First, confinement in asylums and control over the inmates "living environment" was a core aspect of the new approach. Second, its main goal was to educate the patients to discipline and restrain themselves through environmental manipulations and psychological influence. Actually, induction of fear was considered as an important instrument to regulate patients' emotions. This concept was pushed to the extreme by some practitioners, such as the French alienist Leuret, who endorsed an aggressive confrontation of patients' views, thus leading to a repressive form of management (Wolpe and Theriault 1971). Moreover, moral treatment was seldom available for the majority of patients and remained limited to a low number of institutions. Descriptions of harsh treatments of person with mental illness are easily found in journal articles, reports or books throughout the nineteenth century. The list of the extravagant tools employed for the management and the physical coercion of patients is impressive: straitjackets, spinning chairs, immersion in icy water, surprise baths, bloodletting, blistering, gags, wooden cribs, cramped boxes, to name just a few (De Fréminville 1975).

In England, campaigns to address abuses in asylums were prompted by first person accounts, such as the one by John Perceval, son of a prime minister, who spent 2 years in private asylums between 1832 and 1834. He reported that he was forced to use a clyster in his brother's presence, was kept in a strait-waistcoat, was repeatedly beaten, pulled by the nose and saw attendants half-strangling an inmate (Hervey 1986). However, although the introduction of "moral treatment" may have improved to some extent the conditions of some inmates, around the half of nineteenth century the optimism brought by moral treatment and its influence on practices institutional began quickly to wane.

In 1841, the nurse and social activist Dorothea Dix surveyed the institutions for the insane in Massachusetts (United States of America) and sent a memorial to the state legislature, depicting an appalling situation: *The condition of human beings, reduced to the extreme states of degradation and misery, cannot be exhibited in softened language, or adorn a polished page. I precede, gentlemen, briefly to call your attention to the present state of Insane Persons confined within this Commonwealth*, in cages, closets, cellars, stalls, pens! Chained, naked, beaten with rods, *and* lashed *into obedience!*" (Dix 2006).

Roughly around the same time, Robert Gardiner Hill and John Conolly in England advocated against the use of mechanical restraints in asylums and made a plea for the implementation of a non-restraint approach in institutional care of the person with mental illness (Jones 1984; Scull 1984). The uproar caused by such views showed that use of restraint was actually widespread and was considered by most doctors not as a necessary evil, but as an essential treatment tool. This opinion was best exemplified by a well-known alienist in a letter send to the Times: *Restraint forms the very basis and principle on which the sound treatment of lunatics is founded* (Scull 1984).

The non-restraint approach in United Kingdom was widely supported by the lay press and endorsed by public authorities, leading to a reduction in the use of violence in the management of patients, although it is unclear to what extent the abolition of mechanical restraints was fully applied in English asylums. Moreover, a perusal of Conolly's works shows that he did not consider as restraints a number of tools which would have been later classified as such: *As regards keeping dressings on the head or elsewhere, the secured covers and cases of ticken with small locks are generally efficacious; but if they do not prove to, the confinement of the hands comes within the surgical category and is of course allowable.* (Walk 1954). There is evidence that the reduction in restraint use was counterbalanced by the spread of seclusion, i.e. the solitary confinement of patient in a locked bare room, usually with padded walls.

Outside the United Kingdom this innovative system never gained wide acceptance. In Germany, Italy and France the mechanical restraints continued to be in use (Dörner 1969; Canosa 1975; De Fréminville 1975). The American alienists remained skeptical, as witnessed by a retrospective analysis published in 1880 in the prestigious *Boston Medical and Surgical Journal* by William Channing, who wrote the following dismissive sentences: *Conolly was possessed of the enthusiasm and extravagance characteristic of reformers in other fields. Viewed in the sober light of today we see that many of his ideas were impracticable. He imagined a state of affairs impossible anywhere except in the lunatic asylum of paradise.* (Channing 1880).

At the end of the 19th century, in parallel to overcrowding of asylums and the decline of psychological approaches to mental disorders (Clark 1981), a rise in coercive practices was evident everywhere. England remained the only country where the mechanical restraints were seldom used and considered as inappropriate. The gradual inclusion of the care of the person with mental illness in the medical field had not been able to clear the issue of coercion, control and power away from the new science of psychiatry. Asylums in late nineteenth centuries became custodial institutions and when, almost one century later, the deinstitutionalization movement led to downsizing or closing the large mental hospitals, psychiatry still had to come to term with violent practices.

Violence Against Patients in Modern Psychiatric Settings

After the decline of non-restraint movement in late nineteenth century, the role of coercive measures in mental hospital care was taken for granted and their practice remained unchallenged all over the world for more than 70 years. However, despite their widespread use, papers addressing this issue are seldom found in the psychiatric literature until the 1970s. A reference to the index of the most influential American Psychiatric textbook, the mammoth *Comprehensive Textbook of Psychiatry* (Freedman et al. 1975), fails to find any entry under “Seclusion” or “Restraint”. Such topics are not mentioned at all in its 2,700 pages.

It is worth noting that the debate in the 1970s and 1980s saw the confrontations around 2 positions: were restraints and seclusion useful for the control of dangerous behaviors or were treatment modalities being part of the armamentarium of psychiatry. Gutheil (1978) presented in a widely quoted paper the theoretical bases of seclusion, claiming that, beyond its use to control violent behavior and to prevent patients to harm themselves or others, it was an effective treatment to reduce the sensory overload and to isolate patients from pathological relationships and paranoid interpretations. Grigson (1984) advocated the use of restraints to address patients’ maturational needs and to develop a treatment contract, by eliciting their participation in treatment. Critical views on coercive measures appeared more frequently in nursing journals than in psychiatric literature (Pilette 1978).

Modern studies on these contentious issues started in 1984, with the publication of a report by a task force of the American Psychiatric Association (Tardiff 1984). In 1985 the first review was published (Soloff et al. 1985), soon followed by many others (Angold 1989; Begin 1991; Brown and Tooke 1992; Fisher 1994). It was clear that freedom-restrictive interventions were common in any inpatient service, including services for children (Cotton 1989) and new services conceived as alternatives to mental hospitals, such as the community mental health centers (Convertino et al. 1980).

The task force report and the paper by Soloff et al. (1985) were prompted by a 1982 US Supreme Court Decision, which gave to the clinicians the right to exercise professional judgment to use seclusion to control violent patients or even patients showing disruptive behaviors which could lead to violence. Therefore, the authors reviewed the empirical studies on restraint with the aim of providing data to support the decision-making by psychiatrists. They found only 13 studies conducted in various psychiatric inpatient settings and observed wide variation in incidence of seclusion or restraint, with high rates up to more than 50.0 % of patients secluded in acute care units. However, the most striking finding was that nonviolent disturbed behavior was the main reason leading to the decision to restrain patients.

Soon after the publication of the American Psychiatric Association report Elyn Saks, then staff attorney at Connecticut legal services, published a harsh critique of the use of mechanical restraints in the prestigious *Yale Law Journal* (Saks 1986). She had suffered from schizophrenia since few years before and had a direct experience of restraint. Despite her illness, that she later disclosed, she pursued a brilliant academic career, specializing in mental health law and reaching the position of professor of law, psychology and psychiatry at the University of Southern California Law School.

The authors of the first wave of modern reviews on restraints, almost exclusively based on British and American studies, shared the following conclusions:

- This was a still under researched area, plagued by lack of consensus on definitions and methods.
- Restraints and seclusion were widely used, but epidemiological data showed highly variable rates of patients exposed to such interventions.
- Local factors, such as cultural biases, staff role perceptions, and the attitude of the hospital administration, more than clinical characteristics of patients, had a greater influence on rates of restraint and seclusion.
- It was impossible to run a program for severely symptomatic individuals without some form of seclusion, physical or mechanical restraint.
- Restraint and seclusion had deleterious physical and psychological effects on patients and staff, and the psychiatric consumer movement, then a newcomer in the mental health scenario, emphasized these effects.

The last point was especially important, because, as observed by Fisher (1994), in the early 1990s the consumer movement started to give a new voice to criticisms of violent practices in psychiatric care. From 1990 to 1992 the US National Institute of Mental Health sponsored a series of meetings on alternatives to compulsory treatment, involving clinicians, consumers, family members and administrators. A report on the meetings noted with surprise that patients described the experience of restraint as similar to the experience of rape and physical abuse (Blanch and Parris 1992).

In the past 20 years refinements in epidemiological methods, more rigorous study designs and attention to the evidence-based approach produced relevant changes in psychiatric research. To what extent did such changes influence our knowledge of coercive and violent practices?

Through a careful review of the recent literature we identify the following trends:

- Multicenter studies confronting rates of coercive practices across countries (Raboch et al. 2010).
- Studies investigating restraints in large epidemiologically representative samples of people in contact with psychiatric services (Lay et al. 2011).
- Studies broadening the area of interest by investigating all traumatic and harmful experiences of patients in psychiatric settings (Frueh et al. 2005).
- Studies focused on the subjective experience of people who underwent coercive practices (Newton-Howes and Mullen 2011).
- Studies focused on strategies to reduce or eliminate coercive measures in psychiatric care (Scanlan 2010).
- Studies of professional attitudes toward restraint (van Doselaar et al. 2008).

The last update of quantitative data on seclusion and restraints in different countries has been provided by Steinert et al. (2010). The authors noted that, despite recent advances, epidemiologically sound data on this issue were scarcely available. Moreover, no information was available on low-income countries, with very few exceptions. Anecdotal reports from India showed that practice of restraint were widespread and approved by most clinicians (Khastgir et al. 2003).

The authors were able to present figures on rates of seclusion and restraint on all psychiatric admissions and on the annual number of coercive interventions per 100,000 inhabitants from 11 countries. Nationwide data were available from Norway, Finland and Iceland. Huge variations were evident: percentages of admissions exposed to coercive measures ranged from zero in Iceland to 36.0 % in Austria. Rates per 100,000 inhabitants were high in Austria and Germany and low in Japan, Finland and New Zealand. Iceland was the only country with a full non-restraint policy. No epidemiological data were available for the USA, due to the fragmentation of the US healthcare system.

Interesting data came also from the European EUNOMIA project, aimed at assessing the practice of coercive measures in 11 European countries (Raboch et al. 2010). The project assessed not only seclusion and restraint, but also forced medication. Overall, restraint was applied to 36.0 % of involuntary patients admitted during the first 4 weeks of admission in an index period of 18 months, seclusion to 8.0 % and forced medication to 56.0 %. Great variability across countries was observed, with a minimum of 21.0 % of patients experiencing coercion in Spain up to 59.0 % in Poland. Seclusion was used only in the United Kingdom and Italy, the use of restraint was very high in Greece. The authors concluded that coercion was used in a substantial group of involuntary admitted patients across countries and the differences in use across European countries mainly reflected differences in societal attitudes and clinical traditions. To some extent, high rates of coercion are paralleled by high rates of involuntary hospital placement, such as in Austria, Finland and Germany (Salize and Dressing 2005).

Such differences are partly related to differences in professional attitudes: some studies showed that in countries with fairly high use of restraint professionals tend to believe in its usefulness. This is, for example, the case of psychiatrists in the Netherlands (van Doeselaar et al. 2008), by contrasts with their English peers (Gordon et al. 1999).

As previously said, a number of recent studies broadened the definition of violent practices by including all aspects of psychiatric care likely to induce harmful or traumatic experiences (Frueh et al. 2005), as suggested by early reports showing that even a number of routine clinical procedures in inpatients services were highly distressing for patients (Meyer et al. 1999). The term "sanctuary trauma" has been applied to events in psychiatric settings meeting the *DSM-IV* criteria for a traumatic event and the term "sanctuary harm" has been suggested for events that, although not meeting the full criteria for trauma, are nonetheless frightening or humiliating. Traumatic and harmful experiences can induce a post-traumatic stress disorder in people with mental disorders, especially because they have high lifetime rates of victimization and are therefore vulnerable to additional negative iatrogenic experiences (Grubaugh et al. 2011).

The largest and more rigorous study of harmful experiences in psychiatric care has been realized in the USA on a sample of randomly selected patients with severe mental disorders who attended a day hospital program (Frueh et al. 2005). Table 10.1 shows the percentage of people reporting a variety of harmful events experienced in any psychiatric service. Most events occurred many times, for example, handcuffed transport occurred almost 3.4 times, seclusion 4.0 times and so on. Stress related to such events often persisted for 1 week or more.

Such findings clearly show that psychiatric services are, at least for some group of patients, unsafe places where various types of violence are fairly common. The authors of this remarkable study noted that few empirical studies have examined in depth traumatic experiences and harmful practices in psychiatric care and concluded that their data support concerns raised to this respect by consumer and advocacy groups. Other studies show that the experience of coercion is commonly felt by patients as dehumanizing (Newton-Homes and Mullen 2011). This is an issue not only in inpatient or institutional care, but also in community-based services. Coercive aspects, such as the community outpatient commitment, have been recently introduced in community care (Salize and Dressing 2005) and some assertive outreach models may be perceived by users as intrusive forms of control (Watts and Priebe 2002).

In the previous years, clinicians and administrators focused on strategies for reduction of restraint and seclusion in psychiatric services. A recent review presents a hopeful picture, showing that it is possible to significantly reduce or eliminate such practices in a range of settings (Scanlan 2010). Although any development in this direction is welcome, the issue of coercion goes beyond this aspect. Violence looks still deeply intertwined with current psychiatric culture and practice. A reorientation of models underlying the social and scientific approaches to mental illness and its treatment is required to deal with this problem.

Table 10.1 Lifetime rates of violence experienced in a psychiatric setting by a random sample of psychiatric patients (N = 142) (Frueh et al. 2005)

Violence type	Rate (%)
Being handcuffed	65.0
Being placed in seclusion	59.0
Being put in restraint	34.0
Witnessing another patients being physically assaulted	25.0
Experiencing unwanted sexual advances	18.0
Experiencing physical assault	13.0
Witnessing another patient being sexually assaulted	7.0

Victimization of People with Mental Disorders

Historically, person with mental illness often have been perceived by the general public as violent and dangerous. This has been confirmed by recent surveys of general population attitudes towards mental disorders in many countries (Angermeyer and Dietrich 2006). Such negative views are often portrayed by the media and are shared, to some extent, by many healthcare professionals, at least as far as psychoses are concerned (Nordt et al. 2006). Moreover, there is evidence that beliefs did not change over the last decades and have not been influenced in a positive way, as expected by many psychiatrists, by neurobiological explanations of mental disorders (Pescosolido et al. 2010; Mehta et al. 2009). As a consequence much research has been produced on crimes by people with mental disorders, violent behavior in psychiatric services, treatment approaches to violent patients, risk to be assaulted for staff in psychiatric facilities and so on.

In recent years, however, the other side of the coin as well has become the focus of a growing attention, namely the risk for the person with mental illness to be victims of abuse and violence after the onset of their illness. The interest about this issue grew as a result of the downsizing of mental hospitals, with an increasing number of people with severe mental disorders spending most of their life outside psychiatric institutions. An early report from the USA on people discharged from mental hospitals to board and care homes in the 1980s showed that at least one third had been victim of crime in the preceding year (Lehman and Linn 1984).

Subsequent studies focused on domestic violence by partners or other family members, especially in women (Cascardi et al. 1996), and on criminal victimization in the community (Aldigé Hiday et al. 1999), and later adopted an epidemiological perspective by comparing the rates of victimization in person with mental illness with those of the general population.

Two recent reviews summarized the findings of the research study conducted in the last 20 years on criminal victimization outside home (Lovell et al. 2008; Maniglio 2009). Lovell et al. (2008) included in their review some studied showing lifetime rates of victimization, thus failing to differentiate between past history of violence as a risk factor for occurrence of mental disorders and violence against people with an already established illness. However, if we consider only the study focused on recent victimization, despite some differences in assessment of study quality, definition of victimization and methodology to present the results, very similar conclusions can be drawn from both reviews.

Despite the heterogeneity of studies in term of sample characteristics, measures and analyses and considering that most studies come from the USA, rates of victimization for individuals with mental disorders are far greater than those of general population. Some variables raise the risk of becoming a victim: alcohol and substance abuse, severity of psychopathology, homelessness, and residence in a poor neighborhood, history of abuse in childhood or adolescence.

Table 10.2 presents the results of high quality studies using a rigorous epidemiological design, in which the comparison with a matched sample of general population in the same area allowed the authors to calculate both the absolute and relative risk of being subjected to violence in the recent past for people with severe mental disorders. All studies were included in the reviews, with the exception of the recent Swedish study (Sturup et al. 2011). The paper by Honkonen et al. (2004) is remarkable, because it reported data from a nationwide survey covering the whole population of Finland.

The North American studies reported the highest rates of victimization and the highest relative risks in comparison with the general population, showing that risks for the mentally are higher in a society, such as the USA, where exposure of population to crimes is fairly high, with 159.5 property crimes per 1,000 households and 24.6 violent crimes per 1,000 adults estimated in 2006 by the National Crime Victimization Survey (Rand and Catalano 2007). In Europe and Australia absolute risks are considerably lower, but relative risks between 2.3 and 5.7 point out that persons, with mental illness are a group in danger even in countries with low crime rates. Risk is high in relation to every type of crime, but especially for violent crimes. A recent national cohort study from Sweden examined the risk of people with mental disorder of being victim of the most extreme form of violence, i.e. homicide (Crump et al. 2013). Mortality rate due to homicide for adults in the period 2001–2008 was 2.8 per 100,000 person-years, representing a fivefold risk relative to people without mental disorders. The risk was increased not only for people with schizophrenia and other psychoses, but also for those with less severe disorders, such as anxiety and depression. The authors noted that in Sweden the homicide rate is relatively low (1.1 per 100,000 person-years), as in other European countries. In countries such as the USA, where rates are 6 times higher, findings on vulnerability of mentally to homicide could have a larger public health impact.

Two categories of violence deserve a special consideration: sexual violence in women and violence by a family member. Early surveys showed a very high risk of sexual assault for women with severe mental disorders. The results of one of the first studies addressing this issue led the authors to conclude that the risk for sexual violence in homeless women with mental illness was so high as to amount to a normative experiences for this population: 30.0 % had been recently assaulted, 15.0 % in the last month (Goodman et al. 1995). Further studies showed that such experiences were to some extent shared by women with less serious disorders living in normal households in various countries. In Brazil, 27.0 % of women with a variety of mental disorders reported sexual violence (Nunes de Oliveira et al. 2012), in India,

Table 10.2 Recent epidemiological studies on risk of victimization by people with mental disorders

Country	Author	Time frame	Absolute risk (%)	Relative risk
USA	White et al. (2006)	6 months	25.6	10.3
USA	Goodman et al. (2001)	1 year	36.7	10
USA	Teplin et al. (2005)	1 year	25.3	11.8
Finland	Honkonen et al. (2004)	3 year	5.6	3.3
Sweden	Sturup et al. (2011)	1 year	20.0	5.7
England	Walsh et al. (2003)	1 year	16.0	2.3
Australia	Chapple et al. (2004)	1 year	17.9	3.5

16.0 % of female psychiatric inpatients had experienced sexual abuse by a partner (Chandra et al. 2003), in the USA, 32.0 % of a sample of female psychiatric patients had experienced partner sexual abuse, 7.0 % in the past year (Chang et al. 2011). It is worth noting that the Brazilian study by Nunes de Oliveira et al. (2012) reported that even men with mental illness can be subjected to sexual abuse, albeit to a lesser extent with respect to women (13.0 % vs 27.0 %). The authors observed that men were more often abused in the streets and women at home.

Domestic violence has been the focus of a recent thorough systematic review (Oram et al 2013). The authors located 42 studies from 11 countries meeting their inclusion criteria (Australia, Austria, Canada, Finland, India, Portugal, South Africa, Turkey, United Kingdom, and United States of America). However, two-third of studies came from the USA. Thirty-five studies reported lifetime prevalence rates and found a median rate around 30.0 % among female patients. Prevalence among men was assessed only by 1 study, reporting a rate of 32.0 %. However, although most studies examined adult lifetime violence, thus excluding events in childhood and adolescence, the possibility that in some cases violence predated the onset of mental disorder cannot be ruled out. Therefore, past year prevalence, reported by 7 studies represents a more conservative estimate of victimization experienced by the person with mental illness. Rates found in good quality studies clustered around 20.0 % among women for intimate partner physical violence. Fewer data were available for men or for violence by other family members. Overall, this review highlighted the high prevalence rates of domestic violence among people using psychiatric services. However, this is still an area where research is lagging behind, despite recent efforts in last years, and the quality of most studies was considered as low by the authors. Although most studies provided higher estimates than have been reported for the general population, no study included controls representative of the general population, by contrast with studies on community violence, thus preventing to quantify the extent to which person with mental illness are at greater risk of being victims of violence by family members.

Conclusion

At the end of this review we can conclude that it is clear that violence and abuse experienced by people with mental disorders within psychiatric services and in the community should be a major public health concern. However, although we know the deleterious impact of violence on the course and outcome of mental disorders (Grubaugh et al. 2011), little attention has been paid so far to this issue by clinicians, researchers and policymakers. This lack of interest is reflected by the scarcity of high quality research addressing this topic, in sharp contrast with the investigations focused on violence perpetrated by the person with mental illness. Moreover, we know almost nothing on the extent of this problem outside the Western countries. Some data are available from India, Brazil and South Africa, but I am not aware of any study on this topic from China or other large countries.

Few years ago, Choe et al. (2008) reviewed empirical studies realized in the USA since 1990 with the aim of weighing the relative public health impact of both violence perpetration and victimization among people with severe mental disorders. They found more than 30 studies of perpetration and only 10 of victimization. Few studies examined both aspects in the same samples. However, studies of comparable populations showed rates between 12 and 22.0 % of perpetration, by contrast with rates of 30–35.0 % of victimization. As a consequence, the authors suggest that victimization should be a greater public health concern than perpetration.

Moreover, we know that routine psychiatric examination often fails to detect experiences of violence and abuse, unless probes focused on this issue are used (Chang et al. 2011). Therefore, it is likely that victimization of person with mental illness is underreported and underestimated. Hopefully, the growth of the consumers' movement might help to provide an impetus to address causes, features and consequences of this phenomenon.

It is our responsibility, as scientists and practitioners, to do our best to raise the awareness of the professionals and the lay public of this very simple fact: the person with mental illness are much more a vulnerable than a dangerous social group. A change in attitude in this direction could have a deep impact on practice of mental health care and on social consideration of the needs of people with mental disorders.

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Chapter 11
'This Is Where a Seed Is Sown': Aboriginal Violence – Continuities or Contexts?

Ernest Hunter and Leigh-Ann Onnis

Introduction

Just over two decades ago, an article appeared in the Sydney Morning Herald (Spectrum, 16th February 1991) written by Dr Margaret Harris, titled *Black violence: why whites shouldn't feel guilty*. It commenced by quoting psychiatrist Dr Jock McLaren: *Brutality is part of black culture, and it's time whites shed their guilt for Aboriginal violence*. The article argued that because there was violence in Aboriginal societies before colonisation, and as most contemporary perpetrators and victims are Aboriginal, Europeans bear no responsibility. As Medical Editor of the *Aboriginal and Islander Health Worker Journal* in the early 1990s, the first author (EH) was involved in a complaint to the National Press Council about editorial discretion in a series of articles culminating in that by Harris. While the complaint was ultimately upheld, the judgement passed without notice and 'blaming the victim' (Aboriginal people as a group in this sense) in relation to intra-cultural violence has come and gone in the media in the years since.

Indeed, two decades later the *Weekend Australian* (Inquirer, 19–20 January 2013) published a remarkably similar piece, *Brutal traditions of Aboriginal culture have no place in society today*, by Dr Stephanie Jarrett (an edited extract of her book, *Liberating Aboriginal people from violence* (Jarrett 2013)). These 2 pieces, presented to the general public with the imprimatur of academic and/or professional expertise, are compelling not only because the opening premise is correct – violence was and is a fact of life in both pre-contact and contemporary Aboriginal societies – but also because of the language used and the common reference to 'brutality'. Indeed, there is no doubt that the violence in question is brutal – but all violence is. However,

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each article suggests that pre-contact or traditional societies were brutal by comparison to the post-Enlightenment colonisers of the continent. This, of course, is manifestly absurd, a proposition dispelled by even the most fleeting knowledge of European history (and as Inga Clendinnen (2003) demonstrates in *Dancing with strangers*, her account of the cultural chasm between those who came to 'settle' with the First Fleet and Aboriginal tribes around Sydney Cove, British punitive violence to convicts and errant military horrified Aboriginal observers in the late eighteenth century). The most eloquent summary of this position is that of McKnight (2002) in the preface of his historical account of alcohol and violence on Mornington Island:

> When commenting on the behaviour of the Mornington Islanders, white people frequently claim
>
> 'They have only themselves to blame.' This is a gross misunderstanding of the situation and it conveniently exonerates the Whites of their responsibility. The simple fact is that if the Whites had not appeared on the scene, the Mornington Islanders and other Aborigines would not be in the predicament that they are now in. But having said that, it is no use harping on it because it evades the issue and places all responsibility on history, as if the present did not exist and will not become history in its turn (p. 3).

Such constructions are consequential; just as fantasising some pre-contact Aboriginal social idyll locates 'responsibility' for subsequent violence entirely with 'the other', so brutalising those same societies, effectively, blames them. Either way, both neatly distort the intervening two centuries, during which almost all the violence until around 40 years ago involved European perpetrators, and reduces contemporary causal complexity to largely immutable factors – trauma and tradition.

That such depictions are newsworthy (these being Australia's leading papers) reflect the wider social and political context – and the times. When the Harris article was written in the early 1990s there was economic downturn in Australia and political division in the then Labour government. Despite the political turmoil, the following year the new prime minister delivered what is considered one of Australia's greatest speeches in the Sydney Aboriginal community of Redfern at the launch of the Year for Indigenous People. He stated:

> And, I say, the starting point might be to recognise that the problem starts with us non-Aboriginal Australians.
>
> It *begins*, I think, with that act of recognition. Recognition that it was we who did the dispossessing.
>
> *We* took the traditional lands and smashed the traditional way of life.
>
> *We* brought the diseases. The alcohol.
>
> *We* committed the murders.
>
> *We* took the children from their mothers.
>
> *We* practiced discrimination and exclusion.
>
> It was *our* ignorance and our prejudice.
>
> And *our* failure to imagine these things being done to us.
>
> With some noble exceptions, we failed to make the most basic human response and enter into their hearts and minds.
>
> We failed to ask – how would I feel if this was done to me?
>
> As a consequence, we failed to see that what we were doing degraded all of us.

As Aboriginal leader, Noel Pearson subsequently stated: *this was and continues to be the seminal moment and expression of European Australian acknowledgement of grievous inhumanity to the Indigenes of this land.* (Pearson 2002). Keating’s political position at the time was perilous and his stance on Indigenous affairs was brave. Indigenous Australia was a polarizing arena in the early 1990s, the tensions reinforced by the release in 1991 of what was to that point in time the largest-ever Royal Commission of inquiry in Australia – the Royal Commission into Aboriginal Deaths in Custody (1991), which commenced with the scrutiny of custodial settings and practices, but ended by focusing on the social contexts informing behaviours (particularly violence) resulting in massively disproportionate levels of incarceration. Two decades and various commissions later, rates of Aboriginal incarceration have increased and Indigenous affairs remain contested.

Indeed, after above noted prime minister’s speech, divisive arguments about an ‘apology’ continued until the election of the next Labour Prime Minister some 17 years later and the official statement in parliament by Kevin Rudd in 2008 that focused, in particular, on past policies of family disruption and child removal – a particular kind of state-sanctioned structural violence. And in the following decade, despite bipartisan political support for change of the Constitution to acknowledge Australia’s first peoples, it is far from certain that the Australian electorate will agree, let alone with the 90.0 % YES vote with which the last referendum (1967) to consider such matters was passed.

Australia has experienced enormous social and cultural changes across the two decades between the prime minister’s acknowledgement and Rudd’s apology, and it can be argued that change has been even more dramatic in Indigenous Australia. However, the 2 aforementioned news articles demonstrate the persistence of a particular understanding of Aboriginal violence over this same period, a construction which emphasises continuity with a far distant past. In this chapter it is change that will be fore grounded and the discussion will proceed from the time of the Harris/McLaren articles in 1991, which coincided with the publication of a ‘socio-historical’ schema of Indigenous violence written by the first author (Hunter 1991). That schema will be briefly reprised before we consider recent data on Indigenous violence and the subsequent literature on this topic. However, we commence by contextualising what follows with a very brief overview of demography and history.

Indigenous Australia: Demographic Context

Australia is approximately the same size as the continental USA with an overwhelmingly coastal, urban population. The Indigenous population is more scattered across major cities (32.0 %), rural centres (43.0 %) and remote regions (25.0 %) (Australian Bureau of Statistics 2011a). Indigenous Australia is extremely diverse with the major division being between people identified as Aboriginal or Torres Strait Islander, the latter being from the islands between Australia and its nearest neighbour, Papua New Guinea. In the national census of 2011 nearly 670,000 people, nearly 3.0 % of the national population, recorded their identity as Indigenous of whom 90.0 % identified themselves as Aboriginal; 6.0 %, as Torres Strait Islander; and 4.0 %, as both (Australian Bureau of Statistics 2012a). Nearly two thirds (64.0 %) of Australia's Torres Strait Islander population live in the state of Queensland (Office of Economic and Statistical Research (OESR) 2012), with approximately one half living in mainland Australia, reflecting a history of considerable mobility driven by work and other opportunities. For the purpose of this chapter, however, when referring to Indigenous people, we are largely referring to the Australian Aboriginal population.

Over two decades, 1991–2011, the census records the proportion of Indigenous Australians increasing from 1.6 to 3.0 % of the total population with projections of growth of twice the rate of the nation as a whole (2.2 % per year). This dramatic increase reflects a number of factors, in addition to natural increase (which has, indeed increased with lower infant mortality rates and improvements in life expectancy). Improved enumeration in more recent census collections and social forces, which have historically had quite different consequences in terms of propensity to identify as Indigenous, have inflated population growth figures. These forces have also been consequential statistically in relation to identification of Indigenous status (Australian Bureau of Statistics 2011b) with implications for the estimation of rates and prevalence data (Department of Health and Ageing 2002).

With such population increase it is not surprising that the age structure for Indigenous Australians differs from that of the non-Indigenous Australians, with the median ages in 1991 being 20 and 32 years respectively for Indigenous and non-Indigenous people, and in 2011 being 21 and 38 years (Australian Bureau of Statistics 2009, 2011c, 2012b). Consequently the youth dependency ratio (the number of children under the age of 14 years of age and younger) compared to the number of people aged 15–64 years in the population) is higher for Indigenous Australians. While for the nation as a whole since 1990 this ratio has fallen from 32.9 % (3 adults per child) to 28.0 % (3.5 adults per child) in 2011 (Australian Institute of Health and Welfare 2011a), the Indigenous youth dependence ratio remains higher, in 1991 being 69.0 % (1.5 adults per child) and in 2011, 59.0 % (1.7 adults per child) (Australian Bureau of Statistics 2011c, 2012b; Castles 1993). This translates into a rate ratio that has remained twice as high for Indigenous Australians compared to the nation as a whole, which has been raised as a factor predisposing to violence among Indigenous Queenslanders (Hunter 1993a).

Indigenous Australia: Historical Context

The prehistory and post-contact histories of the Indigenous peoples in Australia are diverse and complex and the subjects of extensive literatures which cannot be done justice here. Suffice it to say that Indigenous people have been present on the continent of Australia for some 50,000 years and in contact with Europeans since the sixteenth century with British settlement dating only from 1788. Since then, at different times across the mainland and Tasmania, Aboriginal Australians were subject to 3 transformative social change forces. The first might be considered 'frontier violence' as lands were appropriated by colonisers and ways of life disrupted by disease, displacement and depredation – with examples of massacres continuing into the early twentieth century. Overlapping in onset and motivated by ideology, profit and expedience, the second phase – institutionalisation – empowered missionaries, pastoralists and government functionaries with draconian powers supported by racist legislation ('isolation' and 'protection') which continued in various parts of the nation into the second half of the last century. This included state sanctioned disruption of Aboriginal family life (separation of children from their families in dormitories and through forced removal to institutions and adoption) which in the 1990s was the subject of a major Royal Commission (Human Rights and Equal Opportunity Commission 1997). The third phase, from the 1960s on, proceeded from the dismantling of racist legislation and the abandonment of policies of assimilation to policies of self-determination and self-management in an increasingly multi-cultural nation. While statutory barriers have been removed and some Aboriginal and Torres Strait Islander Australians advantaged in terms of social mobility and opportunity, for many Indigenous Australians, particularly those living in remote Aboriginal Australia, this has been a somewhat chimerical transition from institutional dependence to welfare dependence (Pearson 2009). Of particular importance in terms of this discussion, these social transformations have been powerfully consequential for the structure of Aboriginal families and child development (Hunter 1999).

Aboriginal Violence: Narrowing the Focus

Indigenous violence is a broad and malleable concept which, as the authors (Al-Yaman et al. 2006) of a review of this subject in the Indigenous population note, is *increasingly difficult to define* (p. 15). The accumulating literature includes descriptions of violence in terms of physical assault (spouse, family, others), sexual assault, homicide, self-injury and suicide, child violence, adult fighting (same gender), intergroup violence, psychological violence, economic abuse, cyclic violence, dysfunctional community syndrome (Memmott et al. 2001), lateral violence (Aboriginal and Torres Strait Islander Social Justice Commissioner 2011) and more. Indeed, with ubiquitous cellular devices new forms such as cyber violence (Hanewald 2008) are now cause for concern in even in the most disadvantaged and remote Indigenous settings (Aboriginal and Torres Strait Islander Social Justice Commissioner 2011). While all are important, for the purposes of this chapter the focus is on physical violence and, specifically, intentional interpersonal harm. Indigenous self-directed harm has been the subject of an enormous and growing literature since the 1990s and will not be considered in detail save for considering its important relationships to interpersonal violence.

Aboriginal Violence: A Social-Historical Perspective

The article by the first author noted above (Hunter 1991) was written during research conducted on Indigenous suicide in one area of remote Australia – the Kimberley – in the course of which a dramatic increase in deaths from other external causes (homicide, accidents and motor vehicle accidents) was noted for Aboriginal residents of the region from the early 1970s on, with suicide adding to the toll from the late 1980s (Hunter 1993b). By comparison to the 15 years 1958–1972, the proportion of deaths due to external causes over the following 15 years increased from 2.0 to 4.0 % of total female and male deaths to 15.0 and 25.0 % respectively, with homicide being the only category in which female deaths were more common. The early 1970s had been a period of enormous social change for the Aboriginal residents of the Kimberley which included the legalisation of the sale of alcohol in 1972. It was as an attempt to explore these changes and their relationship to changing social contextual forces that led to the schema. It is, of course, speculative and based on significant generalisations (Table 11.1).

In this chapter we will not reference publications on which that article was based and readers are referred to it for supporting information. Suffice it to say that data from paleopathology, anthropology and the accounts of early explorers, missionaries and government functionaries makes it clear that violence was a fact of life in precontact Aboriginal societies. Such violence was intracultural – be it within group or between groups – and was 'meaningful' in terms of cultural (social and sacred) understandings. With both men and women as victims, sorcery, retribution ('payback') and the control of women as partners and economic resources have been presented as critical drivers. The observations and speculations of Europeans during the period of early contact presented such behaviours in terms of 'savagery' (and were associated with dehumanising constructions of Indigenous peoples in ways that supported the appropriation of their lands and resources).

Physical violence was not universal on all first contact frontiers that existed across the nation between 1788 and the early twentieth century, but was not uncommon. This violence was White on Black, instigated by European colonisers (or their Aboriginal functionaries, such as the Queensland Native Police (Richards 2008)) with 'resistance' represented as 'treachery' and responded to accordingly.

Within the orbit of European control, to which Aboriginal Australians drifted or were forced for safety and sustenance, various forms of institutionalisation brought a period of 'quiet'. This was imposed through the structures of missions, stations and government settlements that maintained control through race-based legislation that continued past the middle of the last century and was, in essence, a form of covert, structured violence in which the perpetrators were Australian governments through policies of 'protection'. This period saw the suppression of traditional practices, including violence, with Aboriginal people accorded the status of 'children' – ripe for civilizing.

The rescinding of racist legislation from the 1950s did not result in the removal of barriers to Indigenous participation in the wider Australian society,

Table 11.1 The inter-cultural and socio-historical context of Aboriginal personal violence in remote Australia (Hunter 1991)

Period to circa	Form of violence	Interpretation by Whites	White roles	Structure of violence
Pre-settlement -1860s	Ritualized	Savagery	Speculator	Str. B-B
‘Pacification’ -1920s	Frontier	Treachery	Instigator	Str. W-B
‘Pastoral’ quiet -1950s	Suppressed	Innocence/ happiness	‘Protector’	Covert str. W-B
Reaching out -1980s	Intra-cultural “appealing”	Inherent ‘weakness’	Spectator	Unstr. B-B
Breaking out -1980s	(i) Normative	Deviance	Moralizer	Unstr. B-B
	(ii) Inter-cultural	Defiance	Reactionary	? Str. B-W

Str. structured, *B* Black, *Unstr*. unstructured, *W*. White

which persisted through what the late Eugene Brody had called “cultural exclusion” (Brody 1966). Perilously, rapid social change included entry into a cash economy at the same time that access to the labour market was constrained and access to alcohol unfettered. There followed a dramatic increase in Black on Black violence that was unstructured and chaotic, what Emanuel Marx (Marx 1976) has called “appealing violence” – occurring when there is a high degree of dependence and other avenues to redress are exhausted and unavailable. The particular vulnerability of Aboriginal women can be understood as reflecting, in part, the particular impact of subservience and institutionalisation on the construction of male identity. Europeans, reluctant to reassume roles rejected as paternalistic or disinterested, were largely spectators, the attribution of this violence usually being some kind of inherent weakness.

In the closing decades of the last century, this chaotic Black on Black violence has become normalised through exposure of children raised in unstable environments – particularly in remote communities that have been dubbed outback ghettoes (Brock 1993). This violence has been constructed as deviance or, when it begins to involve non-Indigenous Australians, as defiance, and has been accompanied by soaring rates of Aboriginal incarceration.

The central thesis of this approach is that the expression of violence in remote Aboriginal Australia can only be understood in an intercultural context that has changed dramatically with time. As noted in that paper and as we will emphasise later in this chapter, the propensity for these behaviours is mediated by cultural and social forces impacting the environment of child development, as noted by Goldstein and Segall (1983):

> Child-rearing antecedents must loom large in any framework that attempts to explain human aggressive behaviour. It cannot be understood except as a complex product of experiences that human beings have while growing up, wherever in the world they happen to be born. (p. 475)

Before reviewing more contemporary data it should be noted that this socio-historical approach quickly brought criticism. Joseph Reser (1991) noted that the approach "derives from a largely medical and anthropological view" with data that are "basically epidemiological, not historical" and which fails to *identify or evaluate underlying assumptions about social structure and process, and their impact on, and construction by, other culture communities and individuals*. "Blaming history" he notes in his final sentence *as with blaming culture and blaming the victim, bespeaks an uncomfortable marriage of ideology, self-serving attribution bias, and liberal conscience* (p. 213). These comments acknowledge the foregoing schema and provide an historical background to the more recent data which follows.

Aboriginal Violence: Contemporary Data

The information available about violence in Australian Indigenous communities is vast and is, for the most part, a collection of government reported statistics, hospitals data, and crime reports or self-reports through population surveys. Many of the reviews of this subject have drawn on these data selectively across time and jurisdiction, often with little critical reflection on validity or reliability. In the following we have drawn on reports since 2000 that, where possible, are national in scope, to construct a picture of the participants in the act of violence – victims and perpetrators. In terms of victims we start with data least subjected to error (but not entirely), mortality, followed by morbidity, and conclude with that extracted from an important national self-report survey, the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) which has been extensively drawn on to explore social theories of causation (Snowball and Weatherburn 2008), interpretations which have been challenged and characterised by Stephanie Jarrett (2013) as dangerously misleading and meaningless (p. 49). Data on perpetrators are drawn from reports on offenders and self-report, the latter subjected to the same constraints. In the interest of space what is presented is representative not exhaustive.

Victims: Mortality Data

For the period 1991–2005 the Indigenous mortality rate across the 4 States where the majority of remote-living Aboriginal and Torres Strait Islander Australians reside fell slightly, but the rate ratio by comparison to other Australians remained, roughly, twice as high, with the rate ratio for deaths due to external causes (accidents, intentional self-harm and assault) increasing between 1997 and 2005 from 2.6 to 3.9 (Pink and Allbon 2008). From the same datasets the standardized mortality rate for Indigenous males and females respectively (by comparison to non-Indigenous Australians) attributed to external causes for the years 1999–2003 was 2.7 and 3.2 respectively (Trewin and Madden 2005). These deaths accounted for 19.6 and 12.1 % of male and female excess deaths. Of all deaths from external causes, 34.0 % of male and 17.0 % of female deaths were due to suicide, with the percentages due to assault being 11 and 19.0 % for males and females respectively. In the age group 35–54, the Indigenous/non-Indigenous rate ratio for deaths due to assault for males and females was 17.0 and 12.4 respectively. For 2003 intentional and intentional injuries constituted 10.7 and 9.3 % respectively of total years of life lost due to injury and disease for Indigenous Australians (Vos et al. 2007). Whereas 20.0 % of non-Indigenous homicide victims are killed by an intimate partner, that proportion for Indigenous homicide is more than half (Al-Yaman et al. 2006).

In terms of suicide, the most reliable data are from the Australian Institute for Suicide Research and Prevention which overviews Queensland data (De Leo et al. 2011). For the period 1994–2006 the Indigenous: non-Indigenous rate ratio was 1.8 and 1.3 for males and females respectively, being even higher for Indigenous people aged 15–24 (3.6) and 25–34 (2.4) and even higher for children younger than 15 years (7).

Victims: Morbidity Data

In 2003–2004, the Indigenous: non-Indigenous ratio for hospitalisations due to assaults was 6.7 and 30.8 for males and females respectively (Trewin and Madden 2005). These ratios were essentially unchanged for 2008–2009, with those people resident in remote areas being hospitalised as a result of family violence some 36 times more frequently (Steering Committee for the Review of Government Service Provision 2011). Data on Indigenous hospitalisation for interpersonal violence from Western Australia for 1990 to 2004 revealed a preponderance of women (56.3 %), with women also constituting 65.0 % of those admitted more than once (Meuleners et al. 2010).

Victims: Self-Report Data

The National Aboriginal and Torres Strait Islander Social Survey (NATSISS) provide a snapshot of self-reported information. In 2008, 23.0 % of respondents (15 years or older) reported being a victim of physical or threatened violence, similar to the 24.0 % reported in 2002 which was almost double the 13.0 % reported in 1994 (Australian Bureau of Statistics 2010a, b). Almost half (45.0 %) of Indigenous people who had witnessed violence also reported being a victim. Indigenous people in remote areas were three times (30.0 %) as likely to report having witnessed violence than those in other areas (10.0 %), with 41.0 % for remote residents and 14.0 % for residents in non-remote areas reporting that violence was a neighbourhood problem (Al-Yaman et al. 2006).

Victims: Children

In 2007–2008, the hospital discharge rate for assault of Indigenous children was over five times the rate for non-Indigenous children. Such figures do not, however, capture all violence to which children are exposed. Child abuse is known to powerfully influence the later development of mental health disorders and the propensity to violence (Australian Bureau of Statistics 2010a). Across Australia, the rate of substantiated Indigenous child abuse doubled over the last decade, and for 2009–2010 was 7.4 times higher than the rate for non-Indigenous children (Steering Committee for the Review of Government Service Provision 2011). Child sexual abuse has historically been under-reported, and in Indigenous settings has rarely been raised as an issue until relatively recently. While accurate data do not exist, major commissions of inquiry have been held in the Northern Territory (Australian Institute of Health and Welfare 2007), South Australia (Australian Institute of Health and Welfare 2011b) and Western Australia (Anda et al. 2006). That such violence is widespread is supported by these inquiries and by data on sexually transmitted infections (although not all such infections result from abuse by an adult, and some may be a consequence of non-Indigenous perpetrators). The Indigenous: non-Indigenous rate ratios for diagnoses of sexually transmitted infections for children aged 0–4 years and 5–14 years for the period 2005–2009 were 7.7 and 47 respectively (Steering Committee for the Review of Government Service Provision 2011). A consequence of these factors which, in turn, may add to the risk of later adverse outcomes, is that Indigenous children in 2010–2011 were more than 9 times more likely to be on care and protection orders than their non-Indigenous peers (Wild and Anderson 2007), with the proportion of Indigenous children in out-of-home care in the state of Queensland more than tripling over the decade to 2011 to a rate that is now more than 9 times that of non-Indigenous children (Mullighan 2008).

Perpetrators: Justice Data

In a review of Indigenous perpetrators of violence for the Australian Institute of Criminology, Wundersitz (Gordon et al. 2002) reviewed a broad range of published data, finding that the overwhelming majority of Indigenous perpetrators are involved in intra-cultural violence (97.0 % of Indigenous homicides involve an Indigenous victim); Aboriginal people are at greater risk than Torres Strait Islanders of being brought before the justice system; Indigenous perpetrators are much more likely to be male, and alcohol is commonly involved. Examination of apprehension rates across three jurisdictions for selected years between 2000 and 2006 showed arrest rates for Indigenous compared to non-Indigenous residents for homicide being 1.2–5.5 times greater, for assault 11–27 times greater, and for sexual offences 3.8–11 times greater than for non-Indigenous Australians.

Not surprisingly, there is a massive indigenous over-representation in the justice system with Krieg noting that some 6.0 % of Australia’s indigenous males aged 25–30 are incarcerated more frequently that the non-indigenous population (Smallbone and Rayment-McHugh 2013). Between 2001 and 2008 the Indigenous imprisonment rate increased by 37.0 % (Australian Institute of Health and Welfare 2011c). From a mental health survey of Queensland Indigenous prisoners, of whom 80.0 % of males and 75.0 % of females had been in prison more than once, intoxication at the time of offending is reported by the majority, with the 12 month prevalence of mental disorders being 73.0 % for males and 86.0 % for females (Queensland Child Protection Commission of Inquiry 2013). By comparison to non-Indigenous male prisoners, incarcerated Aboriginal men have been identified as being having higher levels of anger and more compromised capacities for control which related to early experiences of trauma, greater difficulty with identifying and managing feelings and perceptions of discrimination (Wundersitz 2010).

Associated Factors: Alcohol and Cannabis Use

Alcohol has already been noted in terms of perpetrators (Gordon et al. 2002). The 2004 “National Drug Strategy Household Survey” found that just under half (42.0 %) of Indigenous people surveyed had experienced verbal/and or physical abuse (13.1 % physical abuse only) by someone under the influence of alcohol, and 21.0 % from someone under the influence of illicit drugs in the past 12 months (Al-Yaman et al. 2006). Almost one third and just over one quarter of those reporting alcohol or drug related verbal and physical abuse respectively identified their current or ex-partner as the abuser. While there are far less data relating to cannabis and Indigenous violence, aggression can be part of the cannabis withdrawal syndrome (Australian Bureau of Statistics 2012c). Cannabis use is now widespread and heavy in Aboriginal and Torres Strait Islander populations (Fitzgerald 2009), and violence has been reported in Aboriginal settings when supply is compromised (Australian Institute of Health and Welfare 2007; Krieg 2006).

Determinants

Indigenous communities are disadvantaged across a range of indicators and are characterised by what are often referred to as risk factors for violence (Gordon et al. 2002). The associations between disadvantaged and marginalised communities and rates of violence have been extensively discussed by academics, health professionals and social commentators since the 1970s, and while there is little opposition to its existence the associations are confounding and the complexity of unpacking each one to discuss in detail is not the focus of this chapter. While certain social indicators of disadvantage are presented below, only a few will be discussed in depth to consider their relationship with interpersonal violence in Indigenous communities.

Financial Disadvantage

Levels of income and education are lower in remote areas, with more than half (55.0 %) of the people living in very remote areas being among the most disadvantaged people in Australia (AIHW 2007). Indigenous households are over-represented at the lower end of the income distribution. In 2008, 49.0 % of Indigenous households were in the bottom quintile of all households with only 6.0 % in the top quintile. This disparity is greater in regional and remote areas where more than half of households are in the bottom quintile and only 4.0 % are in the top quintile.

Unemployment

Overall, in 2008 employment levels among Indigenous people aged 25–64 years have increased with the improvements being seen in major cities (64.0 %), regional (54.0 %) and remote areas (58.0 %). In remote areas, employed Indigenous people were more often in part-time work (43.0 %), with a high proportion of part-time work in being through community development employment programs in lieu of welfare payments (Australian Bureau of Statistics 2010a, b).

Inadequate Housing

In 2008, over half (52.0 %) of Indigenous people living in remote areas were living in houses with an insufficient number of bedrooms and most of these were in multiple family households (ABS 2010b). During this period, 16.5 % of Indigenous households in remote areas contained more than 1 family (ABS 2011a, b, c). While such factors have frequently been raised in terms of stresses predisposing to violence, there are also data from Western Australia suggesting reduced risk for childhood emotional and behavioural difficulties with higher levels of house occupancy (Heffernan et al. 2012).

Low Educational Attainment/Low Literacy Levels

Overall, the proportion of Indigenous youth (aged 15–24 years) who were either studying full time, working full time (or doing a part time combination of both) increased, however, in remote areas 60.0 % of young people were not fully engaged in education or employment in 2009 (ABS 2010b).

Poor Health

Indigenous people experience poorer health outcomes than the general population. The difference in life expectancy is estimated to be 11.5 years for Indigenous males and 9.7 years for Indigenous females when compared to the life expectancy of non-Indigenous Australians (Australian Government 2013).

Developmental Vulnerability

The risk of involvement with the criminal justice system is increased by a range of neurodevelopmental adversities, including fetal exposure to alcohol which is associated with a higher risk of both victimisation and offending (Day et al. 2008). While accurate prevalence data are not available, Aboriginal Fetal Alcohol Spectrum Disorder and Fetal Alcohol Syndrome are now issues of national concerns (Budney and Hughes 2006; Clough et al. 2006).

Remote Liabilities: Tradition, Trauma or Marginalisation?

Remoteness has been raised as a predisposing factor for Indigenous violence in a number of reports already cited (Al-Yaman et al. 2006; Meuleners et al. 2010; Gordon et al. 2002). However location reflects more than distance and there are data that demonstrates markedly different Aboriginal crime rates in remote New South Wales communities (with relatively similar histories) that appear to reflect the differences in the development of social norms (Select Committee on Substance Abuse in the Community 2007). In Queensland, however, there are data showing the co-varying of a constellation of negative social and health outcomes, including violence, that increase with remoteness but which appear worst in a set of discrete communities (not all of which are remote) with shared histories of institutionalisation and subsequent ghettoization (Hunter 2007). As Memmott (Australian Bureau of Statistics 2010b) notes in comparing family violence in 2 quite different remote Indigenous settings, such violence: *has many cultural and geographic specificities that constitute unique causal factors* (p. 353).

Contemporary Indigenous violence, as the data reviewed so far demonstrate, is overdetermined. This is as it has always been, as David McKnight (Zubrick 2005) suggested in terms of violence in the remote community of Aurukun in northern Queensland: *Arguments and fights occur for many reasons. The main ones are competition for wives, sexual jealousy, adultery, disrespect or alleged disrespect of the dead, behaviour of children, gossip, and sorcery* (p. 492). Whatever the 'causes', it is clear that there have been changes and regardless of levels of violence in pre-contact populations, levels have increased since the period of institutionalisation came to a precipitated end.

On the basis of the paper on which this chapter builds (Hunter 1991) and the data presented here, it is clear that violence was and is common in Aboriginal Australia before and after that period of relative 'quiet' that was associated with statutory control and institutional containment across Australia. It has been argued that there are significant continuities across that divide in remote Australia mediated by adherence to 'traditional' beliefs and practices, Jarrett (2013) noted that: *It is in traditional contexts, on lands of dreams and ideals hard-won after years of political battles with white conquerors, where violence is a legitimised tool to uphold law and male dominance* (p. 145). Indeed, as Sutton (Australian Bureau of Statistics 2011d) notes contemporary violence: *is at its worst in communities with small non-Indigenous minorities and the least severe histories of dispossession or overt discrimination* (p. 37).

Further, in an earlier work addressing domestic violence in a regional town in South Australia, Jarrett (Australian Government 2013) suggests the influence of *the cultures of more 'traditional' Aboriginal populations of the hinterland* (p. 311) – including their propensity for violence – as "reference points" for those less remote Aboriginal residents in pursuit of *the development of a distinctly Aboriginal identity*. *Aboriginal cultural continuity (and cultural renaissance)* (p. 5) in this construction is the predisposing substrate for contemporary violence, so much so that the title of that author's Occasional Paper for the conservative Bennelong Society is *Violence: An inseparable part of traditional Aboriginal culture* (Fast and Conry 2009).

This position is important and consequential as, while acknowledging other factors it does so to constrain their importance. For instance, in relation to alcohol, Jarrett (2013) comments:

> Cultural legitimation of violence across remote Aboriginal Australia makes the addition of risky alcohol consumption particularly dangerous. However, long-term reduction of alcohol consumption to well below mainstream levels – and that is the level needed – across remote Aboriginal Australia is probably unachievable. Moreover, recent statistics suggest that the link between alcohol consumption and violence is weak. (p. 158)

We shall not comment on the enormous literature which does demonstrate powerful relationships between alcohol and violence but will consider here material from 2 remote settings in north Queensland to consider the relationships of remoteness, institutionalisation and alcohol over time. Material on Aurukun is from the writings of different authors (Zubrick 2005; Harris and Bucens 2003; Rothstein et al. 2007), and on Mornington Island that by McKnight (2002; McCausland and Vivian 2010), all of whom had longstanding relationships with the communities.

Before European arrival, the populations of Aurukun and Mornington Island were quite different, the latter being isolated, island populations and Aurukun being mainland clans and tribes scattered over an enormous area. Their histories of institutionalisation as Presbyterian missions were, however, quite similar – from 1904 for Aurukun and from 1914 for Mornington Island, the mission era for both ending in 1978 when, amid conflicts between State and Commonwealth governments, both were expediently gazetted as local government areas and entered into a long period of Departmental control through proxy elected representatives. With various degrees of reservation and resistance, beer was made available through a community canteen on Mornington in 1978, with unrestricted sales in 1995, with a wet canteen operating in Aurukun from 1985, with both local government bodies economically reliant on the sale of alcohol. Returning to Aurukun after a long absence, Sutton (Harris and Bucens 2003) noted: *By 2000, Aurukun had gone from a once liveable and vibrant community, as I had first experienced it, to a disaster zone. Levels of violent conflict, rape, child and elder assault and neglect had rocketed upwards since the introduction of a regular alcohol supply in 1985* (p. 1). With such mounting social costs across all of Queensland's discrete Aboriginal communities, legal access was limited or eliminated through an Alcohol Management Policy that resulted in prohibition in Aurukun from 2002 and in Mornington from 2003. Illicit alcohol ('sly grog') has continued to be an issue since – as has the policy of prohibition.

Data from the publications of McKnight and Sutton, and the work of the first author in relation to suicide in Aurukun, are shown in Table 11.2. Both authors note that violence within and between groups in both settings before mission times, persisting through the early years of y jr mission presence (particularly in Aurukun where widely dispersed groups scattered over an enormous hinterland presented far greater challenges in terms of institutional control than the contained populations on Mornington and adjacent islands). However, in time, serious violence fell in both and deaths were uncommon in the concluding years of mission control. In the aftermath, during which time alcohol became available, violence to self and others has increased, resulting in both deaths by homicide and suicide – the latter being, at least, extremely uncommon in earlier times.

While it is not clear from these data whether the increasing violence reflects social change or alcohol, the imposition of alcohol restrictions (which reduced availability without impacting social circumstances) provides some clarification, specifically, studies of air evacuations by the Royal Flying Doctor Service of serious injuries from four mainland Aboriginal communities (including Aurukun but also one community in which alcohol sales remained, albeit with relative restrictions) (Office for Aboriginal and Torres Strait Islander Partnerships 2006; Memmott 2010). The authors (Memmott 2010) reported that: *The absolute and the proportional rates of serious-injury retrievals fell significantly as government*

Table 11.2 Homicide and suicide on Mornington Island and Aurukun

	Homicide	Suicide	Alcohol
MORNINGTON			
Mission 1914–1978			
14–80	1	1	Canteen 1976
- 90	6	2	
- 00	8	27	Unrestricted sales 1995
AURUKUN			
Mission 1904–1978			
1890–1959	22 M; 17 F		
1960–1985	0	? (few if any)	
1985–2006	11 F; 6 M	15	Canteen 1985

restrictions on legal access to alcohol increased; they are now at their lowest recorded level in 15 years (p. 503).

That violence continues in these settings should be no surprise, not only because illicit alcohol continues to arrive but also because two decades of widespread heavy alcohol use and its social effects, including violence, have been consequential – particularly in terms of child development. As McKnight (McCausland and Vivian 2010) noted in relation to Mornington Island: *the aggressive behaviour of children and adults is all of a piece. Children are continuously exposed to violence and they soon learn to regard violence as a way of life* (p. 156). Rothstein et al. (2007) similarly recorded in relation to Aurukun: *alcohol consumption and drunkenness had become normative, deeply embedded, constituting features of mundane life whose role in the reproduction of social forms was rendered all the more powerful by their largely taken-for-granted nature* (p. 179). And as Sutton (McKnight 1982) notes in terms of child socialisation, the impacts are not only in terms of exposure to drinking and violence, but have resulted in a "lost generation", being: *Young people who, unlike their grandparents, are functionally illiterate and unemployable in the 'real economy', but who have also received only a diminished education in their elders' cultural traditions, if that* (p. 136).

It has been suggested on the basis of qualitative research in a similar Aboriginal community, that through personal community beliefs, dis-inhibiting effects and contingent social circumstances, alcohol encourages the expression of grievances through violence (Sutton 2005). Whether or not, it is clear that while the availability of alcohol is clearly associated with increasing levels of violence and its restriction with reduction, alcohol as a social destabiliser has some enduring consequences mediated by its impact on the environment of child development.

How 'traditional' cultural beliefs and practices interact with these factors is not clear, particularly as remote Aboriginal settings, which are more likely to be considered 'traditional', are also the most disadvantaged communities in Australia. Albeit old and from a time before Aboriginal alcohol abuse became a nationally-recognised problem, there are data from a study of Aboriginal social and psychological adjustment in a setting of acculturative stress (Jarrett 1997). This study in New South Wales demonstrated higher levels of marginality for those who were more traditionally oriented, which was interpreted as being a reaffirmation rather than retention of traditional values in response to what, as mentioned earlier, "cultural exclusion" (Brody 1966). The New South Wales data is also consistent with research from a similar period in Victoria (Jarrett 2009) and the remote Kimberley of Western Australia (Sutton 2009) on Aboriginal adolescent social adjustment, also suggesting the importance of disadvantage and marginalisation. Further, there is research from North American indigenous populations that links personal persistence and cultural persistence at the level of the individual, and investment in cultural continuity at the level of the community and lower rates of one form of personal violence – suicide (Martin 1993; McKnight 1986).

Taken together, these data and accounts suggest the salience of alcohol, social change and the impact of both on child development. While, clearly, aspects of traditional Aboriginal societies and cultural practices supported violence, there is as much to say that this is about discontinuities and exclusion, as it is about continuity.

Conclusion

In this chapter, we have built on earlier work which attempted to link historical processes to changing patterns of violence in Aboriginal Australia. We have drawn on recent data which demonstrate that rates of interpersonal violence are higher than in the wider Australian society, largely inter-culturally contained and with Aboriginal women particularly vulnerable. Across Australia this situation has developed from a period of quiet associated with state-imposed institutional controls, the lifting of which some 40 years ago were associated in remote Australia – where levels of violence are greatest – with entry into a cash (welfare) economy and access to alcohol. The relationship with alcohol is clear, but the mechanisms complex, and in remote settings includes the erosion of pre-existing norms (be they traditional or acculturated) and replacement with social norms derived from protracted exposure to heavy drinking and associated behaviours in environments of marginalisation and cultural exclusion. These norms are mediated and culturally embedded through the environment of child development with the victimisation of children and their exposure to models of violent behaviour.

This situation is a tragedy, which is compounded for Aboriginal Australians by media and academic portrayals that attribute responsibility to their identity. Indeed, there is evidence to suggest that discontinuity is likely more important in this regard than continuity. These are important issues as constructions which alloy traditional culture and violence lead to 'solutions' that suggest that investment in tradition and 'civilized' social behaviours are mutually exclusive. Rather, as suggested by Marcia Langton in the 2012 Boyer Lectures (http://www.abc.net.au/radionational/programs/boyerlectures/) the challenge is to provide means to engage remote Aboriginal Australians in the nation's economy *without sacrificing their cultural selves*. What constitutes a 'cultural self' is complex but need not include a propensity to violence. To the extent that violence is understood as culturally embedded it is because, to quote again Goldstein and Segall (1983), a *complex product of experiences that human beings have while growing up, wherever in the world they happen to be born* (p. 475). And with that in mind we close with the question posed some three decades ago by Western Australian, Indigenous poet, Jack Davis:

Big brown eyes, little dark Australian boy
Playing with a broken toy.
This environment his alone,
This is where a seed is sown.
Can this child at age of three
Rise above this poverty?
Jack Davis, Slum Dwelling (1988, Margolis et al. 2008)

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Chapter 12
Trafficked Persons and Mental Health

Short and Long Term Impact on Affected Populations

István Szilárd and Árpád Baráth

Introduction

“Trafficking in human beings” (THB)/“trafficking in person” (TIP) – both are used in the international documents – is one of the most prolific areas of international criminal activity (Wyler and Siskin 2010).

In their recent publication, Zimmerman et al. (2011), the team of the London School of Hygiene (LSHTM) that has published numerous studies on the health consequences of THB state: Although trafficking-related violence has been well-documented, the health of trafficked persons has been a largely neglected topic. For people who are trafficked, health risks and consequences may begin before they are recruited into the trafficking process, continue throughout the period of exploitation and persist after individuals are released. Policy-making, service provision and research often focus narrowly on criminal violations that occur during the period of exploitation, regularly overlooking the health implications of trafficking. Similarly, the public health sector has not yet incorporated human trafficking as a health concern (Zimmerman et al. 2011).

Trafficked persons, regardless of whether trafficking is for the purpose of labour, sexual or any other form of exploitation, are exposed to a range of health-related problems. During captivity, they may experience:

- Physical violence,
- Sexual exploitation,
- Psychological abuse,

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- Poor living conditions and
- Exposure to a wide range of diseases.

These exposures may have long-lasting consequences on their physical, reproductive, and mental health. The provision of appropriate health assistance to these victims who were exposed to complex multiple abuse, requires special attention preparation and training from the caring personnel (mostly NGOs running special shelters) and health professionals.

It should be noted that providing appropriate health promotion and care services for trafficked persons is not only a humanitarian obligation, but also a public health concern for countries of origin, transit and destination alike (Szilard and Barath 2007). Since the general population is also exposed to the high health risks associated with trafficking, states should commit themselves to both disease prevention and control in this area. This problem does not merely appear in the context of spreading sexually transmitted infections (STIs) and 'common' infectious diseases, such as the (re)-emerging problems of TB, HIV/AIDS and of Hepatitis B and C. A significant public health risk may also emerge if – as a consequence of the deteriorated public health system in the majority of countries of origin – 'vaccine preventable diseases' are spread to transit and destination countries where most physicians have not been confronted with these pathologies before. Providing appropriate and adequate care in the first line of service is the best security measure against such a risk. *To achieve significant advances in this field, governments must harmonize their public health policies including service provision, availability of specially trained practitioners, and data and information sharing.*

In this chapter we aim to give a short overview on the nature and magnitude of this 'modern type' of slavery as well as its special health consequences.

Definitions

The United Nations Convention against Transnational Organized Crime (2004) definition states:

"Trafficking in persons" shall mean 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 having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs this definition has been adopted by INTERPOL as well.

Importantly the phrase "victims of trafficking" (VoT) does not denote a homogenous group of exploited people. The US State Department report of 2011 (US State Department 2011) explains the situation from the angle of "enslavement". At the heart of this phenomenon are the myriad forms of enslavement – not the activities involved in international transportation.

This report classifies the major forms of human trafficking in 8 categories (forced labor, sex trafficking, bonded labor, debt bondage among labor migrants, forced child labor).

Forced Labor

Also known as involuntary servitude, forced labor may result when unscrupulous employers exploit workers that became vulnerable by high rates of unemployment, poverty, crime, discrimination, corruption, political conflict, or cultural acceptance of the practice. Immigrants are particularly vulnerable, but individuals also may be forced into labor in their own countries. Female victims of forced or bonded labor, especially women and girls in domestic servitude, are often sexually exploited as well.

Sex Trafficking

When an adult is coerced, forced, or deceived into prostitution – or maintained in prostitution through coercion – that person is a victim of trafficking. All of those involved in recruiting, transporting, harboring, receiving, or obtaining the person for that purpose have committed a trafficking crime. Sex trafficking also can occur within debt bondage, as women and girls are forced to continue in prostitution through the use of unlawful "debt" purportedly incurred through their transportation, recruitment, or even their crude "sale" – which exploiters insist they must pay off before they can be free. It is critical to understand that a person's initial consent to participate in prostitution is not legally determinative if they are thereafter held in service through psychological manipulation or physical force. They are trafficking victims.

Bonded Labor

One form of force or coercion is the use of a bond, or debt. Often referred to as "bonded labor" or "debt bondage," the practice has long been prohibited under US law by the term peonage, while the Palermo Protocol. This Protocol was adopted by the United Nations General Assembly in 2000 and entered into force on 25 December 2003. As of August 2014 it has been ratified by 161 states. Workers around the world become victim to debt bondage when traffickers or recruiters unlawfully exploit an initial debt the worker assumed as part of the terms of employment. Workers also may inherit debt in more traditional systems of bonded labor. In South Asia, for example, it is estimated that there are millions of trafficking victims working to pay off their ancestors' debts.

Debt Bondage Among Migrant Laborers

Abuses of contracts and hazardous conditions of employment for migrant laborers do not necessarily constitute human trafficking. However, the imposition of illegal costs and debts on these laborers in the source country, often with the support of labor agencies and employers in the destination country, can contribute to a situation of debt bondage. This is the case even when the worker's status in the country is tied to the employer in the context of employment-based temporary work programs.

Involuntary Domestic Servitude

A unique form of forced labor is the involuntary servitude of domestic workers, whose workplaces are informal, connected to their off-duty living quarters, and not often shared with other workers. Such an environment, which often socially isolates domestic workers, is conducive to exploitation since authorities cannot inspect private property as easily as they can inspect formal workplaces. Investigators and service providers report many cases of untreated illnesses and, tragically, widespread sexual abuse, which in some cases may be symptoms of a situation of involuntary servitude.

Forced Child Labor

Most international organizations and national laws recognize that children may legally engage in certain forms of work. There is a growing consensus, however, that the worst forms of child labor, including bonded and forced labor of children, should be eradicated. A child can be a victim of human trafficking regardless of the location of that nonconsensual exploitation. Indicators of possible forced labor of a child include situations in which the child appears to be in the custody of a non-family member, who has the child perform work that financially benefits someone outside the child's family and does not offer the child the option of leaving.

Anti-trafficking responses should supplement, not replace, traditional actions against child labor, such as remediation and education. When children are enslaved, however, their abusers should not escape criminal punishment by virtue of longstanding administrative responses to child labor practices.

Child Soldiers

Child soldiering is a manifestation of human trafficking when it involves the unlawful recruitment or use of children – through force, fraud, or coercion – as combatants or for labor or sexual exploitation by armed forces. Perpetrators may be government forces, paramilitary organizations, or rebel groups. Many children are forcibly abducted to be used as combatants. Others are unlawfully made to work as porters, cooks, guards, servants, messengers, or spies. Young girls can be forced to marry or have sex with male combatants. Both male and female child soldiers are often sexually abused and are at high risk of contracting sexually transmitted diseases.

Child Sex Trafficking

According to UNICEF, at least two million children are subjected to prostitution in the global commercial sex trade. International covenants and protocols obligate criminalization of the commercial sexual exploitation of children. The use of children in the commercial sex trade is prohibited under both the Palermo Protocol and US law as well as by legislation in countries around the world. There can be no exceptions and no cultural or socioeconomic rationalizations preventing the rescue of children from sexual servitude. Sex trafficking has devastating consequences for minors, including long-lasting physical and psychological trauma, disease (including HIV/AIDS), drug addiction, unwanted pregnancy, malnutrition, social ostracism, and possible death.

Smuggling in Person

Trafficking from juridical and criminal point of view differs significantly from people smuggling because it involves the exploitation of people. Smuggling in person involves people who are willing to pay (using cash or other favors) in order to gain illegal entry into a state or country of which they are neither citizens nor permanent residents. However, very frequently they became also victims of the smugglers and at the end stage they health harms will be very similar to that of the VoTs.

Historical Overview

International trafficking of human beings is a growing phenomenon, as hundreds of thousands of men, women and children are trafficked by businessmen (Baráth et al. 2004).

Surprisingly, many follow the trafficking routes of the Middle Ages or the Renaissance when mainly Eastern European women and children were sold in slave markets in Western Europe.

The first known phase of trafficking occurred during the Middle Ages, when each year thousands of women and children from East Prussia, the Czech lands, Poland, Lithuania, Estonia and Latvia were sold in the slave markets of Italy and southern France.

The second phase occurred during the latter part of the Middle Ages and the early Renaissance when Eastern European women and children were trafficked, mainly from Russia and the Ukraine, and sold into slavery in Italy and the Middle East. Others came from Bosnia, Albania and the Caucasian Mountains. They also ended their days as slaves in Italy and France. This trafficking route into Western Europe ceased when the Ottoman Empire conquered Constantinople. Western European countries then turned their attention to West Africa as a source of slaves.

The modern slavers from Serbia, Albania, Bosnia, Turkey, Russia and Eastern Europe model themselves on the slavers of the Middle Ages and the early Renaissance. Not much has changed, except they now dress in expensive suits, carry mobile phones and drive flashy automobiles.

The Severity and Scope of the Problem

Because of the nature of the problem, only limited data are available and they are based on estimation. A United Nations report speaks about 127 countries as origin of trafficked people worldwide in the period of 1996–2003 (UNODC 2006). The US government estimates that approximately 600,000–800,000 people are trafficked across borders each year – 80.0 % of whom are female and up to 50.0 % of whom are minors (US Department of State 2008). If trafficking within countries is included in the total world figures, official US estimates are that 2–4 million people are trafficked annually. The International Labor Organization (ILO) estimates that there are at least 2.4 million persons in the process of being trafficked at any given moment, generating profits as high as $32 billion USD (International Labor Organization 2008).

The Global Initiative to Fight Human Trafficking (http://www.unglobalcompact.org/docs/issues_doc/labour/Forced_labour/HUMAN_TRAFFICKING_-_THE_FACTS_-_final.pdf) speaks about similar figures. According to its referred data:

- The majority of trafficking victims are between 18 and 24 years of age (International Organization for Migration 1999).

- Many trafficking victims have at least middle-level education (International Organization for Migration 1999).
- An estimated 1.2 million children are trafficked each year (UNICEF 2003).
- Ninety-five percent of victims experienced physical or sexual violence during trafficking (based on data from selected European countries) (The London School of Hygiene and Tropical Medicine 2006).
- Forty-three percent of victims are used for forced commercial sexual exploitation, of whom 98.0 % are women and girls (International Labour Organization 2007).
- Thirty-two percent of victims are used for forced economic exploitation, of whom 56.0 % are women and girls (International Labour Organization 2007).

Political and Human Rights Reflections

The problem of trafficking of human beings, as one of the most *inhumane* phenomena of modern societies, was raised first by human rights campaigners at the beginning of the twentieth century (Szilárd et al. 2004). At that time much attention was paid to British women, who were forced into prostitution on the European continent. In this way, the term of "white slavery" appeared. The phenomenon became a political issue in the early 1900s. In 1902, the International Agreement for the Suppression of the White Slave Traffic was drafted. Its purpose was to *prevent the procuration of women and girls for immoral purposes abroad*. After a few years, 12 countries around the world ratified it. This eventually led to the USA passing the Mann Act of 1910, which *forbids transporting a person across state or international lines for prostitution or other immoral purposes*. With the problem of sex trafficking still growing in the middle of the century, the United Nations felt it necessary to address the problem. This was done by the 1949 Convention for the Suppression of the Traffic in Persons and of the Exploitation of the Prostitution of Others, which was ratified by 49 countries. As a significant step UN adopted in 2000 the United Nations Convention against Transnational Organized Crime as well as the Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime ('Palermo Protocol')

Until recently, much of the support in the fight against trafficking has focused on information exchange, criminal and juridical cooperation, and return and reintegration assistance. Only in the last few years have been published studies that have called the attention to the serious health concerns related to trafficking (Zimmerman et al. 2003, 2006; Editorial 2006). These documents also highlight the need to develop minimum standards of care and provide specialized services that specifically match the needs of the victim.

In recognition of these health concerns, the Budapest Declaration (USAID 2003) notes that *more attention should be dedicated to the health and public health concerns related to trafficking*. Specifically, it recommends that trafficked persons should receive *comprehensive, sustained, gender, age and culturally appropriate health care (. . .) by trained professionals in a secure and caring environment.* To this end, *minimum standards should be established for the health care that is provided to trafficked victims* with the understanding that *different stages of intervention call for different priorities.*

As a recent development on this field during the EUPHA 3rd Conference on Migrant and Ethnic Minority Health in Europe (Pécs, 27–29 May 2010) the so called Pécs Declaration has been adopted.

It states among others:

- Health professionals, border guards and helpers should be specially trained in order to be able to provide quality health care and assistance, with emphasis on intercultural (religion, language, etc.) aspects and mental health.
- Interdisciplinary basic and advanced training programs should be developed and launched for helpers making them capable to cope with this complex task addressing both, assistance provision and occupational health aspects.
- Minimum health care standards should be set up.
- Mental health aspects and psychological counselling play a crucial role in establishing a confidential relationship with victims and in helping them in social reintegration.
- Cooperation should be improved between law enforcement, labour and health authorities, NGOs and academia.
- Women, children/unaccompanied children and adolescents are especially vulnerable groups with specific assistance and health care needs (e.g. sexual and reproductive health of women, legal issues concerning guardianship of minors).
- Prevention should be improved by creating hostile environment (police and judicial cooperation) for trafficking in target countries.
- Health of taficked persons – notably victim assistance, health/mental health care and rehabilitation/reintegration – should well represented under the ‘4 Ps’: Prevention, Protection, Prosecution and Partnership and be included into the European Union (EU) Anti Trafficking Coordinator’s action as declared in the Stockholm Programme. (The Stockholm Programme sets out the European Union’s (EU) priorities for the area of justice, freedom and security.)

Misbelieves Regarding THB

It is a known fact that the general public’s awareness about trafficking all over the world countries is blurred with prejudices and myths about trafficking and its victims, on one hand, and on the other, it is overwhelmed with very low-level, incoherent, sporadic knowledge of traficking resulting from biased and sensation-seeking public media reporting only on a few number of “really striking” cases, whereas for the general public the entire phenomenon is either a “taboo” or a “far-away” world, ignored as much as possible. To illustrate the case, here we quote a few common myths about the victims of trafficking that Ukrainian researchers and health professionals hear and record on a day-to-day basis (Bezpal'cha 2003):

- *Myths about awareness*: According to this myth: *All the girls and women who go abroad (from Ukraine) know what will be awaiting them there... These women are guilty because they broke the law and agreed to work illegally; they naively believed all the tales about big money in other countries, so they don't deserve our compassion and help.*
- *Myths about prostitution*: *A woman who returns after trafficking is a prostitute. She had fun; she earned a lot of money. Why should anyone help her? ...Once a prostitute, always a prostitute. She'll never change. Why should she get help?*
- *Myths about choice: The woman went there of her own accord and earned money, just as she wanted to. So what does it have to do with us? (...) Look at the way she's all dolled up and covered with make-up. She's just a whore, not someone who was victimized by traffickers.*
- *Myths about responsibility: All these women, who went onto trafficking about all the things the claim to went through. They just want to get help, to gain basic benefits from her lies (...). These women could have escaped from their pimps. Why didn't they?*

One can find virtually the same or similar pattern of myths and misbelieves about trafficking all over the world, such as: the common say that *All prostitutes are willing to participate in trafficking, All participants involved in human trafficking are criminals*, and the like.

However, behind all myth-makings and violent attitudes one can easily discover a "double-bind" (Janus-faced) morality typical for the value structure of modern (Western-type) societies, in particular regarding sex and labor, as the two most sensitive moral issues that persist and regenerate themselves probably since colonial times (Foucault 1976). The essence of this double-faced morality lays, on one hand, in the fact that modern societies typically and permanently tend to create, enforce and reinforce a full range of myths about own "clean morality", "high-standard values", the "superiority of own culture" (over others), while on the other side, they create, maintain and re-incarnate an abundance of prejudices, violent attitudes and mechanisms of social exclusion towards all those social groups, who – for one or another reason – are considered "unfit" to the normative standards of living, as imagined by the mainstream (civil) society. These are usually labeled as "outcast" groups, many of them "underclass", and can be of very diverse kind and origin – the "poor", the "Gypsies", prostitutes, gays, immigrants, trafficked and smuggled people, to name only a few. Needless to emphasize, that one of the first and most important steps in a public health approach to trafficking is the task of debunking public myths and biased attitudes about both the victims and their perpetrators.

Dynamics and Process of Trafficking – Push and Pull Factors

From a sociological point of view, trafficking in humans is a special kind of migration process, and as such, it shares to some extent two basic features common to other types of migration. One of these features is the dynamics of mass migrations, which rests, among others, on balancing between two forces. One of these forces is the complex of push factors (moving from, flight from), and another is the complex of pull factors (moving towards, attracted to certain values and goals). This two-factor model is one of a classic (economic) approaches to migration, also known by the name "the laws of migration". It was formulated by the British economist, Ravenstein (1885) in the 1880s. As far as the trafficking in humans is concerned, this theory can highlight many personal motivation factors that "move" great many victims onto the web of trafficking, but there are still great many other push and pull factors that have little or nothing to do with the personal motivation of potential victims. In Table 12.1 we listed a sample of this factor specific to the dynamics not only of trafficking but to other types of modern migration (e.g. smuggling).

Another base of comparison of trafficking with other types of migration is the fact that trafficking is also a stage-wise process, yet with a host of specific features in contrast to any other types of either legal or illegal migration. Migration researchers in the past usually distinguished three major phases in this change process: (1) pre-departure stage, (2) transient stage, and (3) adaptation or integration stage (Jansen 1970). This rather simple three-stage model rests on the assumption that the migration trends are linear moves of people from one social setting to another, from one's country of origin to one or more other settings, where some of those other settings will be a kind of life-long "final" destination, other not. At this time however, such kind of three-step linear moves appears to be rather atypical in more recent trends of migration, both within countries and in trends of cross-border migration. Specifically, more typical is for the currently unfolding migration trends the kind of, so called, "open-ended" migration process, where moving from one site of residency to another is not at all a linear, but rather a circular process, where "circularity" means moving forth-and back to one place or country of residence to another, and that goes along with permanent changes both in individual and social identities (Lifton 1992; Volkan 1999).

Testimonies of Victims

Viewed from this perspective, trafficking apparently represents an extreme case of fully "open-ended" migration processes, which typically starts at some "fixed" point both in space and time, yet it is fully uncertain whether and how, if ever, it

Table 12.1 Most frequent push and pull factors underlying trafficking

Push factors	Pull factors
Natural or man-made disasters in home countries, including war	The “illusion of prosperity and good life” in Western societies
Civil unrest, inter-ethnic conflicts, escalation of community violence and crime at sites of residence	Illusion of “personal freedom” and self-determination as part of the post-modern value climate
Corrupt political and bureaucratic regimes, weak law enforcement	Faked self-presentation of home-coming migrants (guest workers)
Weak democratic institutions, deepening social inequalities	Lasting impact of globalized “Hollywood-effect” (easy-going life) through media on mass culture
High unemployment rates, general poverty, forced labour, mass exploitation	Peer pressure towards norm-breaking, adventure and delinquency
Poor educational opportunities in the country	Attraction to prostitution and prostitutes as ‘role models’ for easy and luxury life
Poor health and social care	
Flight from family violence and child abuse	

ends at any point in space and time. The most frequently quoted stages of trafficking experience in the literature are the following (Motus 2004):

- pre-departure stage,
- travel and transit,
- “destination” stage to a kind of recently created global “slave market”, and “moved around” from one to other places or countries,
- rescue or escape, detention and/or deportation, criminal evidence, which at the best eventually ends with return and reintegration, or
- at worse, it continues with re-trafficking from the place and country of origin, or from anywhere else.

The flow-chart below clearly indicates that after one or more “destination” sites, the future of a trafficked person is typically blurred and full with uncertainties, and her/his fate is completely out of personal control. The truth is that the bulk of victims never, if ever, would reach any of the last two closing phases of trafficking experience. According to rough estimates, some 85.0–90.0 % of victims is never, if ever, able to return home and back to civil life. Moreover, an unknown number of ex-victims even after rescue and fortunate return home would be re-trafficked under life-threatening pressure from the side of local and/or international traffickers (Fig. 12.1).

Let us look at closer victims’ testimonies stage-by-stage, as they go through the hell of trafficking (Zimmerman et al. 2003)

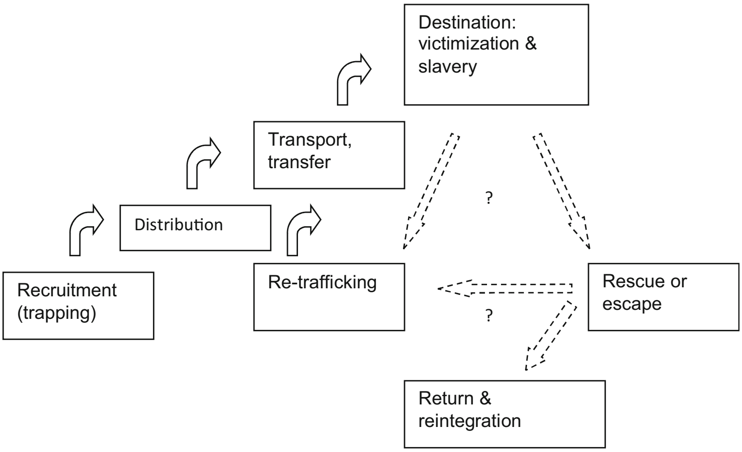

Fig. 12.1 Major stages of the trafficking process

Recruitment and Distribution

I was just 15 when I left Romania. When I was 12 my mother died, my father became an alcoholic and would beat my brother and me. A cousin said he would get me out of this situation and into a 'normal' life. He sold me like a slave.

Caroline, Romania to UK

Transport Conditions

Two men escorted us. We were fed only bread and water. We crossed through Poland, Germany, and Holland. At the border with Poland we crossed without any problems, but at the border with Germany we were told to leave the bus and cross the border on foot late at night.

Nadia, Ukraine to Belgium

Destination Stage

They beat me and kicked me. They told me 'Don't scream, or we kill you.' I kept quiet. I was a virgin before they raped me.

Ellen, Albania to UK

Specific Health Consequences of Trafficking

One can conclude that the adverse effects of trafficking must be enormous and in combinations of many diseases and ill-health conditions. One can also assume that all the adverse health consequences impact not only the victims themselves, but directly or indirectly, large segments of the general population worldwide. That is all those “others” who ever come into close contacts with them, either physically or mentally. In the past ten years, great efforts were invested by numerous international organizations, including IOM, WHO, UNICEF and many others, to draw medical and epidemiological statistics on health consequences of trafficking in those countries most vulnerable to this kind of migration. Thus far with rather modest results, however. This is due to serious obstacles of different kind (ethical, legal, methodological etc.) that practically make impossible to conduct any large-scale epidemiological surveys of representative samples of victims, since the vast majority of them are irregular migrants, kept away from public view and local authorities. The only reliable medical (clinical epidemiological) statistics can be drawn from a few specialized rehabilitation centers established for ex-victims, who are returnees to countries of origin, such as IOM Rehabilitation Center in Chisinau (Moldova), in Kiev (Ukraine), Sofia (Bulgaria). However, all these are relatively small clinical samples, thus no generalizations could be made from such small samples neither across countries, nor across different rehabilitation centers and their specific diagnostic procedures.

The table below illustrates the types and prevalence rates of physical and mental health impairments of 171 assisted trafficked women, who went through a 3-day standard diagnostic procedures at the IOM Chisinau (Moldova) Rehabilitation Center upon arrival (Gorceag et al. 2004) (Table 12.2):

One of the most comprehensive qualitative research ever done in the field, quoted earlier (Zimmerman et al. 2003), was a 2-year study on trafficking in the European Union, involving a total of 28 trafficked women and adolescents in Italy, United Kingdom, the Netherlands, Ukraine, Albania and Thailand, and 107 informants in 8 countries from the health, law enforcement, government, and NGO sectors (Zimmerman et al. 2003). The principal findings highlighted 9 major categories of health risks and abuse, parallel with the potential consequences, listed as it follows:

- physical abuse/physical health;
- sexual abuse/sexual and reproductive health;
- psychological abuse/mental health;
- forced, coerced use of drugs and alcohol/substance abuse and misuse;
- social restrictions and manipulation/social well-being;
- economic exploitation and debt bondage/economic well-being;
- legal insecurity/legal security;
- abusive working and living conditions/occupational and environmental well-being,
- risks associated with marginalization/health service utilization and delivery.

Just to illustrate of what specific issues were targeted within each of these categories, the table below is an excerpt from the authors’ original study report (Table 12.3)

120 out of the 176 (68.0 %) eligible women participated in a recent study (Ostrovschi et al. 2011) of Moldavian VoT upon their return and rehabilitation. At 2–12 months after their return, 54.0 % met criteria for at least one psychiatric

Table 12.2 Health conditions of ex-trafficked victims upon arrival to the IOM Rehab Centre

	N = 171	%
A. Medical conditions according to the systems		
1. Genital/reproductive system	129	75.9
2. STD including dermatologic system	151	88.3
3. Infectious conditions (HIV)	2	1.2
4. Hepatitis including active forms	42	24.7
5. Respiratory system including TBC, pneumonia	29	17.0
6. Gastrointestinal system (upper/lower tracts)	42	24.7
7. Cardiovascular system	2	1.2
8. Nervous system	33	19.4
9. Urinary tract system	16	9.4
10. Endocrine system	1	0.6
11. Muscular-skeletal system	4	2.4
12. Visual system	6	3.5
13. ENT system	21	12.4
B. Types of mental health disorders		
1. Anxiety disorders (including PTSD, depression)	144	84.0
2. Dissociative disorder	20	12.0
3. Schizophrenia	5	3.0
4. Other psychosis	14	8.0
5. Disorders usually first diagnosed in infancy/childhood/adolescence	25	15.0
6. Personality disorder	31	18.0
7. Sexual aversion disorder	9	5.0
8. Substance abuse/misuse problem	24	14.0
Alcohol abuse	15	9.0
Alcohol dependence	4	2.0
Drug abuse	5	3.0

Source: Gorceag and Gorceag (2004)

Table 12.3 Health risks, abuse and consequences of trafficking

Forms of violence and abuse	Potential health consequences
1. Physical abuse	1. Physical health
Murder	Death
Physical attacks (beating with or without an object, kicking, knifing, whipping, and gunshots)	Acute and chronic physical injuries (contusions, lacerations, head trauma, concussion, scarring)
Torture (ice-bath, cigarette burns, suspension, salt in wounds)	Acute and chronic dishabilles (nerve, muscle or bone damage; sensory damage, dental problems)
2. Sexual abuse	2. Sexual and reproductive health
Forced vaginal, oral or anal sex; gang rape; degrading sexual acts	Sexually transmitted infections (STD) and related complications, including pelvic inflammatory diseases (PID), urinary tract infections (UTI), cystitis, cervical cancer, and fertility
Forced prostitution; inability to control number or acceptance of clients	Amenorrhea and dysmenorrhea
Forced unprotected sex and sex without lubricants	Acute or chronic pain during sex; tearing and other damage to vaginal tract
3. Psychological abuse	3. Mental health
Intimidation of and threats to women and their loved ones	Suicidal thoughts, self-harm, suicide
Lies, deception, and blackmail to coerce women, to discourage women from seeking help from authorities or others, lies about authorities, local situation, legal status, family members	Chronic anxiety, sleep disturbances, frequent nightmares, chronic fatigue, diminished copying capacity
Emotional manipulation by boyfriend-perpetrator	Memory loss, memory defects, dissociation
4. Forced and coerced use of drugs and alcohol	4. Substance abuse or misuse
Non-consensual administration and coercive use of alcohol or drugs in order to	Overdose, self-harm, suicide
Abduct, rape, or prostitute women	Participation in unwanted sexual acts, unprotected and high-risk sexual acts, high risk activities, violence, crime
Control activities, coerce compliance, impose long work hours	Addiction
Decrease self-protective defenses, increase compliance	
5. Social restrictions and manipulation	5. Social well-being
Restriction on movement, time, and activities; confinement, surveillance, and manipulative scheduling in order to restrict contacts with others and forming helping relationships	Feeling of isolation, loneliness and exclusion
Frequent relocations	Inability to establish and maintain helping or supportive relationships, mistrust of others, social withdrawal, personal insecurity

(continued)

Table 12.3 (continued)

Forms of violence and abuse	Potential health consequences
Absence of social support, denial or loss of contact with family, friends, and ethnic or local community	Poor overall health from lack od exercise, healthy socializing, and health promoting activities
6. Economic exploitation and debt bondage	6. Economic related well-being
Indentured servitude from inflated debt	Inability to afford
Usurious charges for travel documents, housing, food, clothing, condoms, health care, other basic necessities	Basic hygiene, nutrition, safe housing
Deceptive accounting practices, control over and confiscation of earnings	Condoms, contraception, lubricants Gloves, protective gear for factory work or domestic service
7. Legal insecurity	7. Legal security
Restrictive laws limiting routs of legal migration and independent employment	Acceptance of dangerous travel conditions, dependency on traffickers and employers during travel and work relationships
Confiscation by traffickers or employers of travel documents, passports, tickets and other vital documents	Arrest, detention, long periods in immigration detention centers or prisons; unhygienic, unsafe detention conditions
Threats by traffickers or employers to expose women to authorities to coerce them to perform dangerous or high-risk activities	Inability or difficulty obtaining treatment from public clinics and other medical services
8. High risk, abusive working and living conditions	8. Occupational and environmental health
Abusive work hours, practices	Vulnerability to infections, parasites (lice, scabies) and communicable diseases
Dangerous work and living conditions (including unsafe, unhygienic, over-crowded, or poorly ventilated places)	Exhaustion and poor nutrition
Work-related penalties and punishment	Injuries and anxiety as a result of exploitation by employers, risky and dangerous work conditions
8. Risks associated with marginalization	8. Health services utilization and delivery
Cultural and social exclusion	Deterioration of health
Limited access to public services	Poor preventive care and treatment
Limited quality of care due to discrimination, language and cultural differences	Alienation for available health services

diagnosis comprising post-traumatic stress disorder (PTSD) alone (16.0 %); co-morbid PTSD (20.0 %); other anxiety or mood disorder (18.0 %). Eighty-five percent of women who had been diagnosed in the crisis phase with co-morbid

PTSD or with another anxiety or mood disorder, sustained a diagnosis of any psychiatric disorder when followed up during rehabilitation.

The Case of Unaccompanied Minors – Special Health Considerations

The most vulnerable populations in trafficking are the children and minors, who make more than half of the total population of victims, according to UNICEF estimates (2005). Children and adolescents are trafficked into many of the same forms of labour and for similar purposes as adults (e.g., factory work, domestic service, sex work, and as brides). They are also exploited in ways that are particular to children (e.g., child pornography, camel jockey, begging, mining, and organ donation). According to the same source, the following factors make children especially vulnerable (UNICEF 2005):

1. *Poverty:* Poverty heightens children vulnerability to traffickers. One of the most obvious ways, material poverty, leads to exploitation and abuse through child labour.
2. *Inequality of women and girls:* The legal and social inequality of women and girls is as breeding ground for trafficking. Where women and girls are objectified and seen as commodities, a elimate is created in which girls can be bought and sold.
3. *Low school enrolment:* Children who are not in school can easily fall pray to traffickers. The estimated global number of children not attending school is 121 million, the majority of whom are girls.
4. *Children without caregivers:* Children who are without caregivers are extremely vulnerable to trafficking and exploitation, including orphans, and street children. Those placed in institutions grow up without any closer ties to any kind of community (except bonding to own gangs). Millions of children in Africa are orphaned by HIV/AIDS, and in Asia and Eastern Europe the threat of HIV/AIDS is on the rise.
5. *Lack of birth registration:* Children who are not registered are more susceptible to trafficking. It has been estimated that 41.0 % of the children born in 2000 were not registered at birth.
6. *Humanitarian disaster and armed conflict:* During conflicts, children may be abducted by armed groups and forced to participate in hostilities. They may be sexually abused or raped. Conflicts and natural disasters contribute to porous border, increasing traffickers' ability to transport people.
7. *Demand for exploitative sex and cheap labour:* Trafficking and the skyrocketing demand for exploitative labour and sexual services are closely linked. The drive for rising profits often annihilates all kinds of ethics, resulting in children being exploited in factories and sweatshops.

8. *Traditions and cultural values:* Trafficking with children intersects the traditional role of extended families as caregivers and an early integration of children into the labor force. The ‘traditional placements’ of children in families of distant relatives or friends have mutated into a system motivated by for-profit economic objectives.

During a trafficking experience, the child is exposed to a physical and psychological environment that damages her/his potential for normal and healthy development. Chronic abuse likely affects personality development and can cause pathological personality development. For example, children learn to “survive” through taking the path of very diverse criminal activities; feeling compelled, even while they are abused; they tend to form attachments and develop trust with their criminal caretakers. After all, children tend to trust adult caretakers, comply with authority figures and blame themselves and feel guilty for what others impose on them. This has disastrous effects on their future capacity to form healthy relationships based on mutual trust and intimacy.

Children are not small adults, and the medical staff and other persons assisting children victims of trafficking should not treat them as such, but be sensitive to the special needs of a child in such difficult conditions (Grondin 2003):

- Developing approaches that demonstrate respect and promote participation.
- An understanding of the complex ways in which their past experience has harmed them.
- Tailoring services to meet the needs of each age group and in ways appropriate to the age and characteristics of the child concerned, and never merely following programmes designed for adults.
- Implementing strategies aimed at mitigating the effects of past trauma and fostering healthier patterns of development.

The right of children and adolescents to health and to health services appropriate to their age and particular requirements are not only essential for their survival and well-being, but are also fundamental human rights grounded in international human rights conventions in particular the Convention on the Rights of the Child (CRC), which states that the best interests of the child shall be a primary consideration (CRC 1989).

Perspectives to Tackle Trafficking

There is an abundance of scholarly papers, case studies, handbooks, guidelines and training manuals aiming to assist both the professional and general public to take responsibility in combating trafficking in a meaningful, effective and organized way. Hereby we only highlight two possible perspectives (Szilard and Barath 2007).

Health Promotion Perspectives

It is a generally acknowledged fact that one of the most salient changes in the entire philosophy of public health came around in the mid-1980s, with the WHO initiated Ottawa Charter on Health Promotion (WHO 1986). The turning point was, the critical re-conception of health as a positive social construct, and the paradigm shift of moving away from its rather narrow, largely "disease-focusing", mostly bio-medical conception as it was propagated over decades by clinical health sciences. A key axiom of the statement, which says: *Health is a positive concept emphasizing social and persona resources, as well physical capacities. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond health life-styles to well-being.*

Another famous axiom of the Ottawa Charter was a brief call, *Act locally, think globally!*

Put it differently, *the Ottawa Charter '86 on Health Promotion made quite clear, for the first time in the history of health sciences and related disciplines, the health and the future of the modern societies is not, and cannot be left anymore to illusionist (utopist) thinking, rather it out to be a grand plan of social action drawn upon the following ground principles*:

- social change,
- physical (environmental) change,
- healthy policy development,
- empowerment,
- community participation,
- equity and social justice, and
- accountability (of any social action).

Although the document was not aimed at any kind of crime prevention, and it was created far ahead in time before trafficking became one of the key public health issues world-wide, the above listed ground principles of social action can equally be applied to violence and crime prevention in modern societies. As far as counter-trafficking is concerned, of the above listed range of interlocking principles, *community participation strikes out as one of most and urgently needed avenue for social action.* Community development, in general, drawn on existing human and material resources in a community to enhance *self-help and social support, in the case of counter-trafficking*, offers, at this time, one of most viable strategies both for early prevention and victims' protection.

A Feminist Perspective

If taken this perspective seriously and critically, it must have little, if any, connection with the fact that the vast majority of the trafficked persons in Europe are young girls and women. Rather, the importance of this perspective dwells on the historic fact that not the men, but the women became first watchful about the rise of trafficking and other mass violence in modern societies (the bulk of which, if not all, are committed by men). On the other hand, women's understanding of the roots and lasting consequences of trafficking on family life, in particular on children and reproductive health of a society as a whole, seems to make the feminist perspective more viable and important on the whole scene of counter-trafficking than any other, mostly men-dominated, "strong-hand" law enforcement. Hence, it is no wonder that so far counter-trafficking programs and helping resources for victims of trafficking are created mostly by women's voluntary organizations, both on national and international levels, such as White Ring in Hungary, "Payoke" in Belgium and Holland "La Strada" in Italy, Albania, Macedonia and Bulgaria, "Winrock International" in Ukraine, Moldova, Rumania and Russia, to name only a few. That is also the reason why the International Organization for Migration (IOM), the most powerful intergovernmental organization that is active in this field, is widely cooperating with these NGOs within the frame of its counter trafficking programs.

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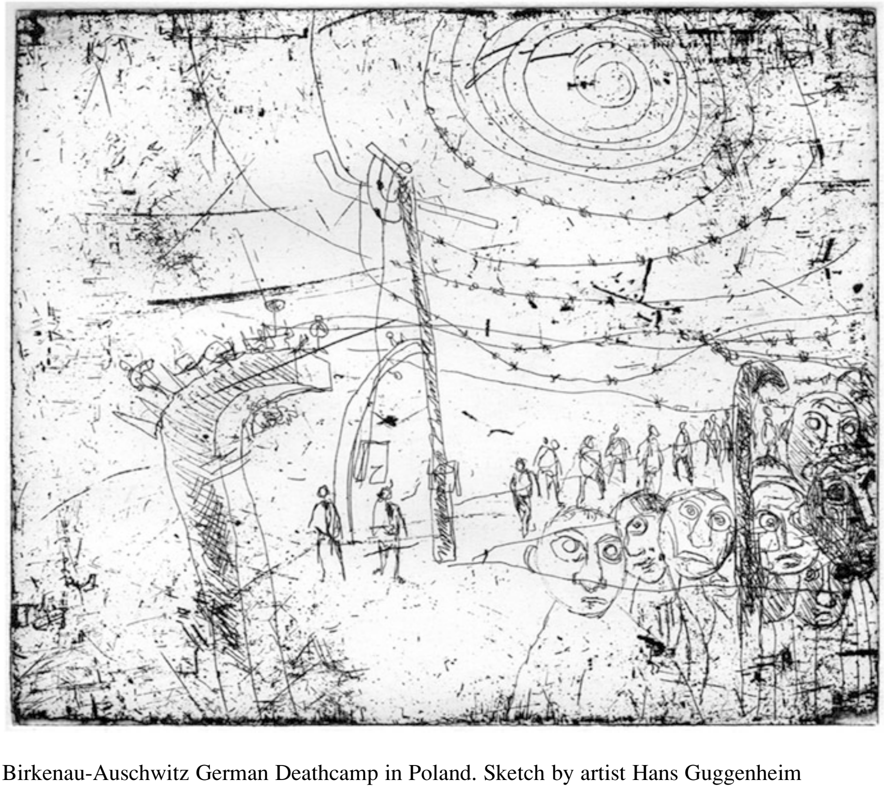
Part V
Violence in Societies



Birkenau-Auschwitz German Deathcamp in Poland. Sketch by artist Hans Guggenheim

Chapter 13
Terrorism and Its Impact on Mental Health

Sasha Rudenstine and Sandro Galea

Introduction

There is a substantial literature on the mental health consequences of large-scale population-level disasters. Spurred in part by the 1995 Oklahoma City bombings and the September 11, 2001 terrorist attacks, both in the USA, evidence about the mental health consequences of terrorist events has grown over the past two decades. In this chapter we will discuss some conceptual issues particular to understanding the mental health consequences of terrorism (as contrasted with natural and technological disasters), review the available literature on the mental health consequences of terrorism in the affected and broader communities, and discuss public health interventions and treatments for the mental health consequences of terrorism.

Terrorism

The term 'terrorism' was first used in reference to the French Reign of Terror, 1793–1794, to describe the actions of the Jacobin Club (Arnold et al. 2003; Atran 2003; Burke 1795). In 2010, 11,604 acts of terrorism were documented in 72 countries; 192 of these attacks resulted in more than 10 deaths each (U.S. Department of State 2011). While terrorism can occur in many forms, to date terrorist acts are

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predominantly "conventional" acts, such as bombings, kidnappings, or shootings, versus "unconventional" acts, such as chemical or nuclear release (Arnold 2003).

Although terrorism has a long history and is now prevalent worldwide, there is little consensus on a single definition of terrorism that can guide scientific inquiry in the area. Title 22 of the US Code 2656f (d) defines terrorism as *premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience* (U.S. Department of State 2004, p. xii). The European Union defines terrorism as acts that *seriously [intimidate] a population, unduly [compel] a Government or international organization to perform or abstain from performing any act, or seriously [destabilize] or [destroy] the fundamental political, constitutional, economic or social structures of a country or an international organization* (Council of the European Union 2002). These definitions, like many others used by other governing bodies, rest on the political aims of terrorism at the expense of the consequences of such events on population health. Arnold et al. (2003) put forth a medical and public health definition of terrorism, which they believe *will facilitate clinical and scientific research, education, and communication about terrorism-related events or disasters: the intentional use of violence – real or threatened – against one or more non-combatants and/or those services essential for or protective of their health, resulting in adverse health effects in those immediately affected and their community, ranging from loss of well being or security to injury, illness, or death* (p. 47). We lean on this latter definition throughout this chapter.

Conceptual Issues Unique to Terrorism

There are several conceptual issues unique to terrorism that likely contribute to how such acts affect mental health. While the negative outcomes of natural and technological disasters may often be enhanced by human failure (e.g. unsound architecture or system failures) the events themselves are not a result of human actions. Terrorism, on the other hand, is *the intentional use of violence – real or threatened* (Arnold et al. 2003, p. 47) *versus the impartiality of nature or the relative impartiality of human error* (Alexander 2003, p. 168; McNally et al. 2003). Underlying all terrorism therefore is the psychological goal of, *making ordinary people feel vulnerable, anxious, confused, uncertain, and helpless* (Zimbardo 2003). Hence, the *explicit* goal of terrorism is to incite fear and shatter assumptions of security (Franz et al. 2009; Janoff-Bulman 1999). Stated differently, the primary purpose of terrorism is to instill psychological and behavioral disturbance within a population.

Despite the long history of terrorist acts world-wide, the delivery and form of terrorist acts remain largely unpredictable (Alexander 2003). As a result, preparedness efforts must focus primarily on mitigating the consequences of terrorism. Given the goal of terrorism – to terrorize an entire population irrespective of who is directly exposed – emergency efforts must respond to the needs of those directly affected as well as assess the psychological consequences throughout the population in an area affected by terrorism (DiMaggio et al. 2008). For example, DiMaggio and Galea (2007) suggest that while 2,795 people were killed and 7,467 were injured by the September 11, 2001 attack on the World Trade Center (WTC) in New York City these numbers fail to represent the family members of those injured and killed, those who were exposed to the attacks but were not physically harmed (e.g. employees of the buildings and their family members), or those residents of the surrounding area (e.g. Westchester County, and the states of New Jersey and Connecticut) who were to varying degrees affected by the event. Therefore, assessing the severity of a terrorist attack by fatalities or injured results in an underestimation of the effect terrorism has on population health.

There are several ways of categorizing exposure to population-level disasters, and in particular terrorist acts. Exposure can be measured by physical proximity to the event, degree of threat, personal injury, family and/or friend injured or killed, family and/or friend exposure without injury, and no exposure (Bleich et al. 2003; DiMaggio and Galea 2006). The group most immediately affected and at the greatest risk of physical and mental harm includes those injured, or who witnessed first hand the events without suffering physical harm. This group has relatively few people compared to the totality of those affected by terrorist attacks. Response workers, including police, members of the fire departments, and emergency medical staff, may not have witnessed in person the event (e.g. bomb explosion), but are exposed first hand to the infrastructural damage and/or human suffering. They comprise of a larger group. Lastly, data suggest that individuals with indirect exposure, via media or stories/experiences shared among friends and/or families, are a far larger group and may also be significantly affected by terrorist events (Ahern et al. 2002; Bernstein et al. 2007; Neria and Sullivan 2011; Pfefferbaum et al. 2003; Yehuda et al. 2005).

The potential broad reach of terrorist attacks is a defining characteristic of terrorism. In a review of 160 disasters, Norris et al. (2002a, b) found that following mass violence (terrorism) 67.0 % of the samples were at a minimum severely impaired as compared to 39.0 and 34.0 % of the samples following technological and natural disasters, respectively. While this finding suggests that the mental health consequences of terrorism are greater than after other forms of disaster (McNally et al. 2003; Norris et al. 2002a, b), Galea et al. (2005) suggest that this finding is due to differences in sampling and is not a reflection of actual differences in the mental health consequences of varying types of events. Therefore, although it is conceptually plausible that the consequences of terrorism are worse than the consequences of natural or technological disasters due to the underlying goal of terrorism – to incite fear – the evidence here remains inconclusive.

Mental Health Consequences of Terrorism

As with any population-level disaster, the risk of several forms of psychopathology is higher after terrorism than it was prior to these events. While short-term mild anxiety, discomfort, and fear are within the realm of a normal response to a traumatic event, persistent and/or severe symptoms represent clinical concern (DiMaggio et al. 2008; Yehuda et al. 2005). We summarize here briefly the peer-reviewed literature that documents mental health in populations affected by terrorism.

Anxiety Disorders

Anxiety disorders, in particular posttraumatic stress disorder (PTSD) and acute stress disorder (ASD) are the best-studied psychopathology following traumatic events, such as terrorism.

Posttraumatic Stress Disorder

PTSD is the most studied mental health consequence of disasters in general, and in particular terrorism. First included in the American Psychiatric Association's *DSM*-III in 1980, PTSD, as a concept and set of symptoms triggered by trauma exposure had long been a recognized illness afflicting soldiers returning from war. Over the past 30 years there have been 3 iterations of the *DSM* diagnostic criteria for PTSD. As specified by the *DSM*-IV-TR, to meet diagnosis for PTSD, persons must report experiencing at least 1 eligible traumatic event (criterion A) to which his/her perception of the event must include "intense fear, helplessness, or horror" (criterion A2), at least 1 symptom of re-experiencing (criterion B), at least 3 symptoms of avoidance and/or numbing of affect (criterion C), and at least 2 persistent symptoms of arousal (criterion D) (American Psychiatric Association 2000, p. 463). Additionally, the symptoms must persist for at least 1 month and result in significant distress and/or impairment (American Psychiatric Association 2000). Debate about PTSD and its diagnostic criteria resulted in modifications in the *DSM*-V (2013; American Psychiatric Association 2010; Friedman et al. 2011).

The scope of an individual's exposure to a terrorist event is the central determining factor associated with risk of psychopathology after terrorist events. For example, Schlenger et al., in a national web-based survey, found that 4.3 % of a national sample had PTSD between 5 and 8 weeks after September 11, 2001, while among NYC residents the estimated prevalence rate of PTSD was 11.2 % (Schlenger et al. 2002). Galea et al. (2002) reported a 20.0 % prevalence rate of

PTSD among residents of NYC who were living close to the World Trade Center 4–6 weeks after the attacks.

Significantly lower prevalence rates of PTSD were found in Madrid following the 2004 train bombing. One to three months after the attack, only 2.3 % of a sample of Madrid residents reported probable PTSD (Miguel-Tobal et al. 2006). Differences in indirect exposure between the events in Madrid and NYC likely explain the variability in PTSD. For example, the September 11, 2001 disaster was associated with far greater direct visual exposure among NYC residents than the Madrid train bombing. Additionally, while the events in NYC on September 11, 2001 resulted in a shutdown of all normal activities, individuals who did not use the train system in Madrid were largely unaffected by the 2004 bombing.

Despite 19 months of recurring terrorist acts in Israel, only 9.4 % of a nationally representative sample had probable PTSD, a prevalence equivalent to that reported by Galea et al. (2002) and Schlenger et al. (2002) after single event exposure (Bleich et al. 2003). Bleich et al. (2003) hypothesized that the repetitive terrorist attacks in Israel may result in a habituation or an "accommodation effect," resulting in a decrease in stress as the presence of terrorism becomes normalized (p. 618).

Several studies show that rescue workers have a high risk of PTSD after exposure to the aftermath of terrorist events. Nearly 3 years after the Oklahoma bombing PTSD was found in 13.0 % of a sample of volunteer firemen (North et al. 2002). Among rescue workers who were enrolled in the WTC Health Registry and who worked at the WTC site, 15.4 % had probable PTSD 2–3 years after September 11, 2001 (Perrin et al. 2007). Perrin et al. (2007) further noted length of time working at the WTC site as well as exposure in the immediate days after September 11, 2001 increased vulnerability to developing PTSD.

The greatest risk of PTSD is generally seen among direct victims (e.g. individuals who are physically present at the time of the attack or who have a close friend/family killed by the attack) as compared to rescue workers and/or the general population. Whalley and Brewin (2007) found rates of PTSD between 30.0 and 40.0 % among those who are directly affected by terrorist acts within 2 years of the 2005 London transit system bombing. For example, North et al. (1999) found 34.3 % of direct victims had PTSD 3–4 months after the Oklahoma bombing. Similarly, 38.5 % of the survivors of the 1996 Paris subway attacks (Jehel et al. 2003) and 36.7 % of NYC residents who were present at the WTC at the time of the September 11 attacks had PTSD at 6 months (Galea et al. 2003).

Trajectories

In the weeks and months after a terrorist event there is an elevated prevalence rate of PTSD symptoms within the affected population, compared to the pre-event baseline. Several longitudinal studies provide evidence for a trend towards resolution of PTSD over subsequent months, with resolution being slower among those most heavily affected by the event. For example, rates of probable PTSD among

NYC residents dropped from 7.5 % at 4 to 8 weeks after September 11, 2011 to 2.3 and 1.5 % at 4 and 6 months, respectively (Galea et al. 2002). Among those with direct exposure (e.g. WTC evacuees) rates of PTSD dropped to 15.0 % at 2–3 years after the event (DiGrande et al. 2010). And yet, a 7-year follow-up study of survivors of the Oklahoma City bombing found 26.0 % of a longitudinal sample continued to meet criteria for probable PTSD (North et al. 2011). This finding highlights the risk of persistent dysfunction among those with the greatest degree of exposure to the original event.

Correlates of PTSD

The risk of developing PTSD is strongly associated with the intensity and type of exposure to any given event (Maguen et al. 2008). As such, PTSD rates are higher in individuals directly exposed to the terrorist event and rescue workers than in the general population (DiGrande et al. 2010; Galea et al. 2002; North et al. 2011). Moreover, a history of lifetime stressors or traumas and experiencing additional stressors after the identified event are strong predictors of functional impairment following subsequent traumas, such as terrorism (Maguen et al. 2008). For example, Galea et al. (2002) found that experiencing at least 2 stressors in the 12 months prior to September 11, 2001 and/or losing possessions and/or a job following the disaster were significant predictors of PTSD. Similar findings were noted after the 2004 train bombings in Madrid (Miguel-Tobal et al. 2006).

Several demographic characteristics have been consistently linked to functional impairment after terrorist events specifically, and mass trauma more generally. Norris et al.'s (2002a, b) review of 160 studies investigating mental health after mass trauma noted female gender, children and middle age adults, ethnic minority status, and low socioeconomic status were individual risk factors for developing PTSD across studies (Galea et al. 2002, 2003; Lee et al. 2002; Miguel-Tobal et al. 2006; Neria et al. 2011; Njenga et al. 2004). Additionally, given that a history of psychiatric illness is a strong predictor of PTSD onset in the aftermath of trauma, it is not surprising that Franz et al. (2009) found higher rates of PTSD among psychiatric patients than in normal controls after September 11th, 2001 (Breslau et al. 1991; Brewin et al. 2000; McFarlane 1989). Similarly, Jehel et al. (2003) found taking psychotropic medications prior to the 1996 bombing attack in Paris was a significant predictor of PTSD 32 months after the bombing.

Summary

The burden of PTSD after terrorist acts among individuals in the affected population is significant and may be greater than after other forms of disasters with comparable impact (Norris et al. 2002a, b; Neria et al. 2008). Moreover, while longitudinal studies do show a general decline in the prevalence of PTSD over time following all types of disasters, among high-risk groups PTSD is likely to persist (Neria et al. 2008; North et al. 2011). As such, studies after all forms of population level disasters repeatedly find that the prevalence of PTSD is highest among those directly exposed, followed by rescue workers and the general population. Generally speaking, the correlates of PTSD are consistent across event type.

Acute Stress Disorder

ASD is characterized by acute and intense anxiety in the 1 month following exposure to a traumatic event. The fundamental difference between ASD and PTSD is the period of time since the traumatic event exposure. Moreover, there is strong evidence suggesting that individuals who present with stress symptoms in the immediate weeks after trauma exposure are at greater risk of subsequently developing PTSD (Bryant 2000; DiMaggio et al. 2008; Fullerton et al. 2004).

Given the nature of terrorist attacks, and the goal that they instill fear, it is not surprising that there is an exacerbation of stress symptoms throughout the population in the weeks following an event. In a nationally representative sample 3–5 days after the September 11, 2001 terrorist attacks, 44.0 % of respondents reported at least 1 substantial stress-related symptom (Schuster et al. 2001). Two weeks following the March 11, 2004 Madrid train bombing Munoz et al. (2005) found similar rates of acute stress symptoms (46.7 %) among residents of the affected areas. Significantly fewer, however, meet diagnosis for ASD. Thirty percent of victims assessed at a hospital in Mumbai, India, following the 2008 terrorist attacks (Balasinorwala and Shah 2009) and 25.6 % of exposed disaster workers as compared to 2.4 % unexposed disaster workers met criteria for ASD in the week after the United Airlines DC-10 flight that exploded mid-air on September 11, 2001 (Fullerton et al. 2004).

Correlates of ASD

The literature about the correlates of ASD in the aftermath of terrorist attacks is inconsistent. Assessed 5 days after September 11, 2001, Schuster et al. (2001) found a significant association between various demographic variables, such as gender, age, race and education, and stress reaction symptoms, which are similar to the symptoms that make-up the ASD diagnosis. These findings were not replicated in Biggs et al.'s (2010) sample of response workers. Rather, type and degree of exposure to the event were highly correlated with the prevalence rate of ASD. Among disaster workers following the 2001 terrorist attack in NYC, 27.0 % of those with high impact exposure (e.g. witness someone dying, work with dead bodies, work with survivors) as compared to 5.8 % of those with no exposure developed probable ASD (Biggs et al. 2010). Consistent with correlates of PTSD, lifetime exposure to traumatic events and peritraumatic symptoms are correlated with increased risk of ASD (Biggs et al. 2010; Fullerton et al. 2004).

Depression

Depression is a burdensome and often chronic affective disorder defined by extreme sadness, hopelessness, thoughts of death, and lack of energy and interest. Kessler et al. (2003) estimate that 6.6 % of the general population suffers from major depressive disorder and the World Health Organization notes that today depression is a leading cause of disability-adjusted life years (DALYs) for men and women ages 15–44 (WHO 2012). The etiology of depression is complex, interpersonal trauma and population-level disasters are firm risk factors for an exacerbation of a pre-existing depression or new onset depression (DiMaggio et al. 2008; Kendler et al. 1999). For example, 5–8 weeks after September 11, 2001, the prevalence of depression among NYC residents in Manhattan living south of 110th street was 9.7 % (Galea et al. 2002). Comparable rates of depression were found in Madrid 1–3 months after the 2004 Madrid train bombing (Miguel-Tobal et al. 2006). In a 5–6 years follow-up study of September 11, 2011 WTC responders, Brackbill et al. (2009) found 14.0 % met criteria for depression.

Correlates of Depression

Correlates of depression in the post-terrorism setting include female gender, US-Hispanic ethnicity, recent stressors, and low social support (Galea et al. 2002; Miguel-Tobal et al. 2006; North et al. 2005; Person et al. 2006). Additionally, stressors before or after the specified terrorist event and an individual's exposure to the event are well-documented predictors of depression in the post-disaster setting (Kendler et al. 1999; Person et al. 2006). These findings are consistent with the broader trauma and disaster literature (Person et al. 2006).

There is a robust association between depression and other psychiatric disorders after terrorist events. Recent evidence suggests high rates of co-morbidity of PTSD and depressive disorders in the aftermath of traumatic events (Fullerton et al. 2004; Grieger et al. 2004; North et al. 2005; Perlman et al. 2011; Person et al. 2006). Galea et al. (2002) reported that 3.7 % of Manhattan residents living below 110th street met criteria for both PTSD and depression 5–6 weeks after the September 11, 2011 terrorist attacks. Five to six years after 9/11, 7.5 % of rescue and recovery workers with PTSD also had depression (Brackbill et al. 2009).

Comorbidity has also been documented between depression and panic. Using an adult community sample, those with a history of panic attacks had more than twice the risk of developing major depression than those without panic (Goodwin 2002). The association between panic, specifically perievent panic, and depression has been replicated in the post-terrorism context (Person et al. 2006). Moreover, via structural equation modeling, Adams and Boscarino (2011a, b) looked at the association between perievent panic and depression over time. Consistent with the current literature, Adams and Bosarino found perievent panic was predictive of depression 1 year after September 11, 2001 when adjusting for confounders (2011a, b). However, they found that this relationship was no longer significant 2 years after the September 11 attacks. They found that psychosocial resources as well as experiencing additional stressors in year 2 were the primary determinants of depression in year 2. More work is needed to further examine the longitudinal relationship between panic and depression.

Substance Use

Many gaps exist in the current literature on substance use following terrorist acts. However, given the well-documented link between increased substance use and traumatic event exposure and/or psychopathology it is entirely plausible that a terrorist act would result in a greater risk of substance use among members of the affected population (Acierno et al. 1996; Beckham et al. 1995; Breslau et al. 2003; Jacobson et al. 2008; Petrakis et al. 2011). Emergent data suggest that this is the case. Vlahov et al. (2004) found that 30.8 and 27.3 % of a NYC resident sample 1 and 6 months after the September 11, 2001 terrorist attacks, respectively, reported increase alcohol, cigarette, or marijuana use. Similarly, residents of Oklahoma reported increased alcohol and cigarette use as compared to a control group in the year following the Oklahoma City bombing (Smith et al. 1999). A meta-analysis of 27 empirical papers on substance use in the aftermath of terrorism suggests that in the 2 years following terrorist attacks, 7.3 % of a population will likely report increased alcohol use (DiMaggio et al. 2009). Additionally, DiMaggio et al. (2009) found a 6.8 and 16.3 % increase in cigarette and mixed drug use (narcotics and prescription medications), respectively, in unadjusted models. Given the ample evidence regarding the use of substances in coping with increased stress and negative affect, these findings, which emphasize the effect mass trauma has on substance use in the affected population, are not surprising (Acierno et al. 1996; Beckham et al. 1995; Breslau et al. 2003; Jacobson et al. 2008; Petrakis et al. 2011).

Children

As with adults, children experience terrorism directly (being in the geographical area under attack and/or knowing someone in the attack) and/or indirectly, such as through the media or hearing of the experiences of others, including their relatives.

Children's reactions to disasters may manifest internally (e.g. as depression, PTSD, anxiety) or externally in the form of conduct disorders. Studies consistently find increased levels of internalizing psychopathology in children who have direct exposure to terrorist events. In particular, children often exhibit increased rates of PTSD symptoms (hyperarousal, avoidance/emotional numbing, and re-experiencing) (Comer and Kendall 2007). Two to three months after the September 11, 2001 attacks, 73.0 % of Washington, DC youth sampled reported at least 1 PTSD symptom while 6 months after 10.6 % of 8,236 children sampled in NYC had probable PTSD (Hoven et al. 2005; Philips et al. 2004). Additional studies have found a rise of agoraphobia, separation anxiety, generalized anxiety and panic symptoms, and depression among children in the post-terrorism context (Comer and Kendall 2007).

Externalizing behaviors, while less frequently studied, have also been found to be more prevalent in the months following September 11, 2011. Among a sample of NYC public schools, 4th through 12th graders, 12.8 % had a probable conduct disorder 6 months after the September 11, 2011 terrorist attacks as compared to 3.9–11.2 % found in US community studies pre-September 11, 2001 (Hoven et al. 2005). Based on parental reports of child behaviors, Stuber et al. (2005) found that the prevalence rate of conduct problems among children 6–11 years old and 12–17 years old decreased to 18.7 % from 32.9 % and 29.0 % from 37.6 %, respectively, 4 months after the September 11, 2001 attacks. However, also Stuber et al. (2005) found that rates of conduct problems among children surpassed pre-September 11, 2001 rates at 6 months after the terrorist attacks (33.1 % among 6–11 years old and 43.9 % among 12–17 years old). This latter finding is consistent with the increased rates of probable conduct disorder after the same event found by Hoven et al. (2005).

Reducing the Health Consequences of Terrorism

Early intervention at a population and individual level, in the form of screening for psychiatric symptomatology and psychoeducation, may mitigate the mental health consequences of terrorism. This section will first review models of response at a population level, and second, describe clinical interventions for the prevention and treatment of trauma-related pathology in the immediate aftermath of the event.

Population-Level Response Efforts

Terrorism affects individuals directly and indirectly exposed to the event. As a result, population level interventions need to accommodate a diverse range of needs and experiences and overcome porous geographic boundaries further complicated by the media and the internet. Given the relative infrequency of large-scale acts of terrorism (such as the Oklahoma City bombing, 9/11 and the Madrid train bombing), current models of population level responses are significantly informed by a more robust history of studies of natural and technological disasters. In the USA, the Federal Emergency Management Agency (FEMA) plays a large role in financing and helping in the implementation of services in the post-disaster context. With a focus on crisis counseling, outreach, public education, and providing a range of supportive resources, FEMA funds large-scale mental health programs. Two examples of such programs in a post-terrorism climate include Project Heartland in Oklahoma City and Project Liberty in New York City.

Project Heartland was established in May 1995 in response to the bombing of the Alfred P. Murrah Federal Building in Oklahoma City. Working in collaboration with multiple other agencies, Project Heartland offered crisis intervention and individual counseling, referrals for appropriate care, support groups, outreach, and education on disaster-related topics (PTSD, children and disasters, recovery; Call and Pfefferbaum 1999). Between June 1, 1995 and February 28, 1998, 8,869 clients received services from Project Heartland and 186,000 contacts were made, in large part due to outreach efforts (U.S. Department of Justice 2000).

Project Liberty served the NYC area following the World Trade Center September 11, 2001 terrorist attacks. With the goal of mitigating the mental health consequences faced by many residents of New York, Project Liberty included a range of services offered in collaboration with government and local agencies and instituted an evaluation component to the program. Project Liberty trained thousands of practitioners in post-disaster mental health counseling (Donahue et al. 2006). In 2 years (between September 2001 and December 2003) Project Liberty provided 753,015 counseling and education sessions. Recently, Sederer et al. (2011) reviewed those components of Project Liberty that mitigated and enhanced its success. Strengths of this program included: (1) substantial interagency collaboration and involvement (state and local governing bodies and NGOs), given the large scale of the attacks, and (2) a media campaign that included substantial education aimed at destigmatizing pathology and distributing information about available resources. Two central problems specific to the provision of mental health treatment included: (1) a dearth of experience among mental health professionals in working with trauma populations, and (2) a FEMA regulation prohibiting the use of FEMA funding for treatment.

Research in the months and years after the September 11, 2001 attacks suggest that despite the increase in mental health services and outreach efforts, there remained significant unmet treatment needs among individuals suffering from PTSD, stress, and depression (Stuber et al. 2006). The "screen and treat approach" of the Trauma Response Programme implemented in the United Kingdom after the 2005 bombings of London's transit system, was designed in response to low rates of help seeking among individuals in post-terrorism contexts (Brewin et al. 2008, p. 4). Hence, the Programme was a proactive intervention geared towards identifying and tracking individuals with persistent symptoms in order to link them to appropriate evidenced-based treatments (Brewin et al. 2008, p. 4). A preliminary paper noted that the Programme's outreach identified and referred for treatment

255 bombing survivors within 15 months of launching; in this same time period only 14 survivors were referred to the same treatment facilities from family doctors (Brewin et al. 2008).

Lessons, ranging, for example, from interagency organization to funding allocation to best practices for mitigating psychopathology, have been learned from the successes and failures of post-terrorism interventions. Given that terrorist attacks will affect individuals directly and indirectly connected to the event, interventions must account for a wide variability of needs as well as the persistence of symptoms among a small, yet a significant number of people. Moreover, proactive outreach via electronic media and in-person home visits to those known to be directly affected is critical to promoting help seeking behavior, especially given the low rates of treatment seeking among individuals with PTSD (Stuber et al. 2006; Wang et al. 2005). More extensive evaluation is needed of mental health programs implemented in the post-disaster context in order to improve public health interventions and mitigate the mental health consequences of large-scale disasters.

Immediate Prevention and Intervention

Heightened stress-related symptoms experienced in the days after a terrorist attack are a natural response. For most individuals these symptoms resolve spontaneously without clinical intervention. Nevertheless, there is considerable debate over how to immediately assess and mitigate the mental health consequences of mass disaster. Two interventions that have, over time, held currency in the field, are critical incident stress debriefing (CSID) and psychological first aid (PFA).

CSID, developed by Jeffery Mitchell, historically one of the more common psychological debriefing interventions for any first responder or direct victim, is no longer considered an effective intervention (McNally et al. 2003; Yehuda and Hyman 2005). CSID, administered in a 3–4 hour session within a few days of the event, was designed to normalize for the participants stress reactions to the event and provide psychoeducation about stress and coping mechanisms for managing stress. Additionally, participants were allowed to recount their experiences and express their emotional reactions. Upon completion the participant can receive referrals for continued treatment if clinically indicated or desired by the participant (DiMaggio et al. 2006; McNally et al. 2003). Several reviews in the past decade have found CSID to be ineffective in mitigating the consequences of terrorist attacks and potentially to be harmful, exacerbating the negative effects of terrorism (Clauw et al. 2003; DiMaggio et al. 2008; Ehlers et al. 2003; Yehuda and Hyman 2005).

PFA is rapidly becoming the preferred option for immediate intervention, despite a dearth of empirical data regarding its efficacy. Developed by the US National Child Traumatic Stress Network and the National Center for PTSD, PFA can be used with children, adolescents, and adults in the immediate aftermath of a disaster, including terrorism. PFA is designed to reduce the initial distress caused by traumatic events, and to foster short- and long-term adaptive functioning

(National Child Traumatic Stress Network and The National Center for PTSD 2006, p. 5). Core tenets of PFA include: (1) establishing a non-intrusive and empathic connection through which he/she helps to secure immediate and ongoing safety while providing emotional and physical comfort, (2) assessing and helping the client address his/her immediate needs, (3) helping the individual link with social support networks, family, and community resources, (4) and providing appropriate mental health referrals when clinically indicated. Unlike debriefing, PFA is not a clinical intervention. Rather it provides psychosocial support while normalizing reactions to stress and loss, organizing social support, teaching coping strategies, and linking people to appropriate services (National Child Traumatic Stress Network and The National Center for PTSD 2006).

In light of the current debate on appropriate post-disaster interventions, a group of experts on treatment options for individuals exposed to mass disaster have together outlined 5 key principles that should guide interventions established in the aftermath of an event. Hobfoll et al. argued that successful intervention should promote: (1) a sense of safety, (2) calming, (3) a sense of self – and community efficacy, (4) connectedness, and (5) hope (Hobfoll et al. 2007). These principles are predominantly integrated into the PFA intervention.

Treatment for Persistent Mental Disorders

There are many treatment options for mental disorders that is exacerbated or triggered by mass disaster, which should be considered in light of such variables as the individual's diagnosis, treatment history, and openness to treatment. Cognitive behavior therapy (CBT), dynamic psychotherapy, and/or psychopharmacology are useful interventions for anxiety and/or mood disorders.

Trauma-focused therapeutic approaches include cognitive behavioral and psychodynamic and are geared towards helping the individual gain mastery over his/her traumatic memories (Institute of Medicine 2007). CBT is administered to those individuals exhibiting symptoms, including symptoms of ASD and PTSD and incorporates psychoeducation, anxiety management, exposure, and cognitive restructuring (Institute of Medicine 2007). In a review of PTSD treatments, the US Institute of Medicine (2007) found sufficient evidence for the efficacy of exposure therapies, including prolonged exposure, direct exposure therapy, and multiple channel exposure therapy, in the treatment of PTSD. Generally, exposure therapy consists of the client being exposed to stimuli associated with his/her traumatic memories until the anxiety provoked lessens (Institute of Medicine 2007). Further evidence to determine efficacy in treating PTSD is needed for eye movement desensitization and reprocessing (EMDR), cognitive restructuring, and coping skills therapies (Institute of Medicine 2007). Pharmacotherapy is an important, but secondary, form of treatment for PTSD. A variety of medications are effective in treating PTSD and each medication class targets a different subset of symptoms. The Institute of Medicine's Treatment of Posttraumatic Stress Disorder report (2007) identifies main categories of pharmacotherapy utilized in the treatment of PTSD.

Additionally, CBT is an effective treatment for panic and mild anxiety as it helps alter cognitive processes underlying the symptoms (Otte 2011). A number of studies document the efficacy of CBT in treating anxiety disorders in the aftermath of trauma (Brewin et al. 2008; Ehlers et al. 2003; Gillespie et al. 2002; McNally et al. 2003). Additionally, via mindfulness interventions, such as breathing and relaxation, individuals learn about and can gain control over their physical sensations, which often may lead to panic attacks and heightened anxiety. Psychodynamic therapy can also be utilized in the treatment of anxiety and mood disorders. Psychopharmacological agents, again, are useful additives to treatments for anxiety and mood disorders as they provide immediate symptom relief.

Conclusion

Although in this chapter we have focused on the psychopathologic consequences of terrorism, it is worth noting that the human capacity to withstand traumatic event experiences is well documented (Bonanno et al. 2006; Breslau 2009; Ozer et al. 2003). Ozer et al. (2003) reported that while approximately 50.0–60.0 % of the US adult population has been exposed to a traumatic event, fewer than 10.0 % develop PTSD. Other studies have found significantly higher rates of trauma exposure in the US adult population, while maintaining that fewer than 10.0 % of those exposed develop PTSD (Breslau 2009). Accordingly, Bonanno et al. (2006) documented high levels of resilience after the September 11, 2011 terrorist attacks even among those most vulnerable to PTSD – 32.8 % of those injured, 53.3 % of those in the WTC during the terrorist attack, and 40.3 % of rescue workers were resilient. Preliminary data identifies a number of variables that may jointly promote resilience (Bonanno et al. 2007). Protective demographics include male gender and ages 18–24 and 65 years old and over, while examples of other factors protective of PTSD are maintaining a stable income, social support, and the absence of additional life stressors (Bonanno et al. 2007).

Nonetheless, the burden of mental illness in the aftermath of terrorist attacks is substantial and for some has lasting effects. While debate continues over the most effective mechanisms for the prevention and treatment of the mental health consequences of a human made disasters, there are 3 agreed upon overarching principles. First, heightened anxiety and/or fear in the immediate days after a terrorist attack is normal and will frequently resolve spontaneously without professional intervention. Second, to minimize persistent mental illness, screening for high-risk individuals is indicated along with providing information that normalizes mild symptoms in response to terrorism. Third, referral of individuals with symptoms that require clinical intervention for appropriate ongoing treatment. Additionally, efforts at the population level need to encourage collaboration across federal, state/province, where it applies, and local agencies in the response efforts and to nurture stabilization and, with time, renormalization.

This chapter provides an overview of the mental health consequences of disasters as well as a summary of population and clinical interventions that are effective in the post-disaster context. And yet, it is worth noting that public health is as much about prevention as it is about the implementation of interventions after a traumatic event occurs. For example, features of the environment where the hazard (e.g. earthquake or bombing) occurs affect population health after a disaster (Rudenstine and Galea 2011). Hence the underlying vulnerabilities within the environment, such as inadequate infrastructure, resources or modes of communication, have the potential to enhance the psychopathologic consequences of a disaster (Rudenstine and Galea 2011). This chapter does not explore the relationship between the broader context and population health following disasters. Nonetheless, we would like to suggest that the mental health burden after a disaster is largely determined by contextual characteristics predating the hazard and thus will be only marginally changed by post-disaster interventions. Therefore, in thinking about the mental health consequences of terrorism, efforts to address the contextual vulnerabilities that may worsen post-disaster population health are needed together with the establishment of ready interventions that can well mitigate the consequences of terrorist attacks when they do happen.

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Chapter 14
Political Violence in the German Democratic Republic Between 1949 and 1989 and Its Consequences for Mental and Physical Health

Gregor Weissflog and Elmar Brähler

Introduction

A broad international audience first became acquainted with the topic of political violence in the German Democratic Republic (GDR) from the film *"The Lives of Others* (Henckel von Donnersmarck 2006, see also http://en.wikipedia.org/wiki/The_Lives_of_Others). At the Oscars in 2007 the film received the award for the Best foreign language movie. The movie depicts the life of East-Berlin artists who were persecuted by the State Security police ("Stasi") for political reasons. The movie launched a controversial debate in Germany whether the story is historically appropriate (e.g. Simon 2007). The discussion focussess around the question: is it realistic to assume that the Stasi persecutors changed for the better? A final clarification of this issue must be discussed elsewhere. However, the movie directed international attention to the hitherto largely unknown issue of political persecution in the GDR.

Historical Background

Germany was in a political and administrative transition period between 1945 and 1949 after the end of World War II. After the Potsdam Conference in 1945, Germany was divided into 4 sectors. At the end of this phase, 2 German states were founded in 1949: the Federal Republic of Germany (FRG or West Germany, consisting of the American, British and French sectors) and the German Democratic Republic (GDR or East Germany, consisting of the Soviet sector).

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Political power in the GDR was in the hands of the Socialist Unity Party of Germany (Fulbrook 1997), a party that was created in 1946 through the fusion of the Communist Party and the Social Democratic Party of Germany. Already at the beginning of the GDR, there were opposition efforts against this concentration of power in the Socialist Unity Party (SED). To prevent these oppositional tendencies, the SED continued to work closely with the State Security police ("Stasi"). In 1961, a wall between East and West Germany and between East and West Berlin was built. GDR citizens could no longer travel to West Germany and West Berlin.

Since the founding of the GDR and even more after the construction of the wall in 1961, the State Security police detained opposition activists and imprisoned them in special prisons (Bruce 2010; Gieseke 2011). There interrogations were carried out under the worst conditions (e.g. sleep deprivation, night interrogations). After pre-trial confinement and sentencing, the oppositionals were transferred into the "normal" prison regime, often in conjunction with criminals (murderers, etc.). But, there were also special prisons especially for political prisoners (e.g. Bautzen II, see Fricke and Klewin 2007).

The conditions of imprisonment can be described as follows: There were very harsh conditions with physical torture (e.g. beatings, special detention room, which could be filled with water; in German "Wasserkarzer") under the strong influence of Stalin's regime in the Soviet Union and its impact on the GDR until 1953 (Stalin's death). This physical torture declined in the course of time, but it remained part of the prison regime for political prisoners until the end of the GDR, while the psychological torture a higher priority. The State Security police had set up its own university especially for the "refinement" of psychological maltreatment. These methods of persecution can be subsumed under the dehumanizing term "Zersetzung" and were also used in the context of non-penal-detention (Klinitzke 2010).

As part of sentencing, several paragraphs of the Criminal Code of the GDR were used. These paragraphs criminalized oppositional efforts and were named as follows: "treasonous transmission of messages", "treasonous agitation", "public vilification" and (in most cases) "illegal border crossing", in reference to attempts to escape from East Germany (also including applying for departure).

It can be estimated that approximately 200,000 people were imprisoned for political reasons in the GDR (Schröder and Wilke 1998; Borbe 2010). The exact numbers vary between 180,000 and (with the involvement of political detainees from the time of the Soviet zone) 300,000. A small portion of these prisoners (about 34,000) were redeemed by the Federal Republic of Germany between 1963 and 1989 (Rehlinger 2011). In the 1980s, the political climate in Europe started to change (including the appearance of the trade union Solidarity in Poland, and the process of 'Perestroika' under Gorbachev in the Former Societ Union). Finally in 1989, the people demonstrated peacefully in Leipzig (Bartee 2000) and the entire GDR claiming for their freedom. This led to the fall of both the Berlin wall and the inner-German border and, finally, to the end of the GDR.

Case Vignettes

The study Health and social consequences of political imprisonment in the Soviet Zone/GDR was conducted between 2006 and 2008 (funded by "Stiftung Aufarbeitung", a German government funded organization for the investigation of the SED dictatorship). Biographical data were assessed by conducting 10 biographical interviews with former political prisoners. Two of these interviewed persons will be described in more detail. We selected these 2 cases as examples for the context of political violence in the GDR: (1) criminalisation because of vocal apposition to the system and (2) and in more detail) the failed attempt to escape from the GDR (Beer and Weißflog 2011).

Mr RB

Mr. RB was born in 1934. During his apprenticeship he received classes on political theory, where he took classes on texts from Lenin and Stalin. On January 12th, 1951, he expressed, together with other students, his disgust about this. The friends of RB slightly destroyed school furniture. RB painted a beard on the portrait of Lenin on the wall with a burnt wooden stick. In the following night, he was picked up at home by the police and was handed over to the custody of the Soviet authorities. In the prison cells the lights burned day and night. In the daytime one was only allowed to sit, but not to lie down. At 5 o'clock in the morning the prisoners were awakened and the interrogations were carried out until 1 o'clock at night. Mr. B was not beaten or physically tortured.

On March 6th, the 16 year old RB was convicted together with his classmates. Two of them were sentenced to 25 years, he and another boy to 10 years. RB was sent to the notorious prison "Yellow Misery" in Bautzen, and placed in the youth room. Two hundred to 300 young prisoners were herded into a room and slept on narrow bunks. All had been convicted of political offenses. The boys were constantly hungry. They had 350 g of bread, a quart of soup at noon, and sometimes margarine, jam or sugar. The poor feeding without vitamins worsened the rash on the whole body that RB had developed during the previous period of imprisonment.

A friend encouraged him to use the time in prison to learn something for the future. He even got up to 50 Russian daily vocabulary words. Until January 1952 he remained in Bautzen. Thereafter, RB, together with his friend, was transferred to another prison, the so-called "Red Ox" in Halle. In "Red Ox" there were not only political prisoners, but also criminals (from a bicycle thief to a murderer). This was a new experience for RB. In prison work he was responsible for preparing and distributing food. A successful amnesty appeal freed RB in January 1954.

After German reunification in 1990, RB told his imprisonment story to friends and work colleagues, and he had feelings of relief. Mr. B submitted a request for access to his records of the State Security (Stasi). Based on these documents he found that about eleven close persons from his surroundings had spied on him. He was sad that those persons who had written reports about him for the state security had not spoken honestly with him. RB was rehabilitated in 1997 (in 1998 by the Soviet authorities) and received detention compensation.

Today he still suffers from occasional nightmares and, due to malnutrition in the prison, has some dental problems. Contrary to his earlier decision not to deal with the circumstances of detention, Mr. B entered a reappraisal initiative after the political change in Germany. The members of this group supported the rehabilitation process of former political prisoners, held information sessions and were engaged in establishing the payment of an honorary pension for former political prisoners. After the corresponding bill had passed, his pension has been paid regularly since 2007.

Ms. RD

RD grew up with her parents and siblings in a little village. She gave birth to her first child when she was 15 years old. After giving birth, she lived with the parents of the father of her child. R. finished school and started an apprenticeship. At the age of 17 she met her true love. Her boyfriend was 1 year older. She was impressed by his knowledge of the world. She trusted him. Her boyfriend was conscripted into the army in 1970. He decided to withdraw and to escape with his girlfriend from the GDR. Their daughter was to remain with the grandmother. R. and her boyfriend wanted to get her later.

On August 25th in 1970, R., her boyfriend and 2 other friends took the train near the inner-German border. They were accompanied by a friend who lived in the border area and was familiar with the vicinity. His father was a major of the border troops in the area. R. and the others were hiding in the woods and wanted to cross the border to West Germany at dawn the next day. But there was no fog on that morning, so they decided to delay their border crossing until the next day. Their friend gave them something to eat and to drink. During the following night, this friend was arrested, and a bit later RD, her boyfriend and the 2 others were also arrested by border guards.

Now, her "journey" in the so-called "Grotewohl Express" began (cf. http://de.wikipedia.org/wiki/Grotewohl-Express). This special train for prisoners sometimes travelled for days through the GDR in order to bring prisoners from one prison to another. The prisoners were crammed into small compartments. Usually, the prisoners did not know where they were going. This was an additional way to confuse the political prisoners. R. was brought to a Stasi prison and interrogated throughout the night under floodlights. She was allowed to sleep for 2 h, and then the interrogation continued. She was very frightened, because all attendees were armed. As the interrogation went on, she suffered a nervous breakdown. As a result, she was put in solitary confinement. R. cannot remember how often or for how long. There was no visible clock in prison. After the period of remand, R was initially in a juvenile detention center and, subsequently, she was sent to the women's prison Hoheneck. This prison was completely overcrowded. The estimated numbers are up to 1,600 inmates in a prison designed for just 200 prisoners. Up to 20 women were housed in a 24-square-meter cell with 2 toilets and 1 sink.

Immediately after her transfer to Hoheneck, R. was sent to a bullpen: no light, no toilet, only a bucket, and some bugs on the walls. She shouted, rattled the bars, hit her head until it bled and scraped her arms on the wall. Finally, she was brought to the central prison hospital in the GDR. There, she was sedated with drugs. After a while, she was brought back to Hoheneck in one of the totally overcrowded cells. In Hoheneck, most of the prisoners were incarcerated because of criminal offenses. There was between the prisoners, e.g. sexual abuse. R was very afraid. The political prisoners had a very bad reputation among the prisoners. They were not among the so-called "hard" who knew the "real life". Rather, the political ones were those who wanted to escape from their responsibility for society by escaping from the GDR. R tried to make herself as unnoticeable as possible. She lived in constant fear of death, suffered repeated nervous breakdowns, and had the feeling that she would not get through anything. She made futile attempts to open up the arteries with her long fingernails. Now she assumes that she had also been sedated with drugs in the prison Hoheneck. R received neither visits nor letters nor packages. She did not write, either. Her interrogators said that her friends and her family had turned away from her. R. believed that. Due to the interrogations she experienced in Hoheneck, she lost faith in herself and her self-esteem. She felt that she was not even worthy to grow her own child.

After the end of her imprisonment in 1971, R. returned to her parents. Her child had been at the parents of the child's father during their imprisonment. But after the discharge from prison, R. did not get in contact with her child because of her own feelings of worthlessness. She did not tell her parents or siblings about the prison term. She was embarrassed by the stigma of having been imprisoned. Everywhere in her environment she experienced exclusion and withdrew more and more. She had lost all confidence in herself and others.

After her boyfriend's discharge from prison, R. married him. They had 2 children. But R. began to suffer from depression and nightmares which she did not associate with her detention experience. She had been in psychiatric treatment since 1975 due to a number of psychosomatic symptoms (e.g. pain, weakness, stomach pain). Despite this treatment, her condition deteriorated. In 1979 her husband separated from her. She had not talked about her time in prison with him. The separation was an additional incision in her life. R. had thought that the shared experience of political imprisonment would provide a sufficient basis for living together. But it was not.

The increasing isolation and emotional instability exacerbated her mental state. R. made several suicide attempts due to her severe depression. At her job she tried not to stand out as she did in prison. She did not participate in any events of her company outside the working hours. She assumed that ex-offenders like her have no right to do so. Work only served to feed herself and her children. This effort to not stand out had another reason: her children attended a regular school. In school, such a fate as hers was not an issue; officially there were no political prisoners in the GDR. There was no option to address this issue in the civic lessons, for example (in German the so-called "Staatsbürgerkundeunterricht"). Her sons would probably get in trouble if they had discussed the experiences of their mother. So, R. told her children to forget that she had been imprisoned. It was her way to protect them while she remained ashamed.

In 1989 the political situation changed in the GDR. Thousands of people left the country via the open border with Hungary and Austria. Others demonstrated for changes in society. That was the starting point for R to participate in social life again. The process of societal transformation led to a transformation in R, too. She went to Leipzig and participated in the Monday prayers and demonstrations. When she saw how many people were gathered there, she gradually lost her fear of attracting attention and being arrested again.

In 1990 she felt strong enough to start looking for her daughter, with whom she had had no contact all the years since her arrest. But 5 years passed until there was a first encounter with the daughter. It was followed by other meetings, but a "real" daughter-mother relationship could not be established.

In the mid-1990s, a large proportion of the workforce, especially those workers with disabilities, was to be dismissed or moved to other workplaces, and R. tried to support these colleagues. She sensed that as a new grave injustice. She was very upset in realizing that many of the former SED officials received good posts and pensions, or even appeared on television. It was also a great problem for her recognize that the prison guards who had tortured her still worked in Hoheneck and that the "old" teachers still teach the children. Because of her deep hurts, she would have preferred a radical dealing with the perpetrators and their supporters.

Until 1995, she had energy to fight for her belief in justice. But her hopes vanished. R. took more and more psychiatric drugs. Finally, she became addicted. In 2000 she was admitted to a psychiatric ward again. At first she had a drug withdrawal reaction. This was followed by inpatient psychotherapy. But there was no permanent stabilization of her emotional state. It was only possible to get away from it all when she was on holiday with her new partner far away from Germany, e.g. in the USA.

In 2003, she bought a weekend home near their former home village. She soon regretted this decision. Everything in the village was connected with disturbing memories from the period after discharge from the prison, such as how she hid behind trees in order not to be pursued by the villagers' eyes or to be insulted or ridiculed. This she describes as a re-traumatisation. She reacted with insomnia and depression. A psychiatrist prescribed her antidepressants. After a period of complete lethargy with feelings of futility, she tried to face her fears, she visited the women's prison in Hoheneck on "Open Day" in 2004. Her psychiatrist offered to accompany her, but R. refused. As she walked through the prison, memories came.

Everything was present. This was the world that she knew. In the world outside, she felt she was a stranger. R. realized that she had not coped with the experiences of her past.

In May 2005 her health deteriorated again. She was admitted to an inpatient psychiatric treatment. The psychiatrist became her most important attachment figure. R. felt protected and understood. But she developed a dependency in this relationship. It was very difficult to break it. Her hope for relief by (re-) processing the experiences in her youth was not realized; she felt rather overwhelmed and alone after 26 weeks of psychotherapy. After this, she spoke for the first time with her sons and her current partner about her prison time – even if she could only tell fragments.

In 2006 she first talked about her prison experiences with her former partner (the one with whom she tried to escape). Up to this time he did not know how much she had suffered from the prison experiences. Their daughter now also knew their history, but only fragments. That is because no questions were asked within the family. Rather, the brother-in-law of R. claimed that if they had behaved properly, they would not have been sent to prison. Now R believes that many people think that way. She only tells her story to people when she knows that they consider the GDR to be a dictatorship. Otherwise she would have to explain too much – an effort she cannot afford.

R. is rehabilitated and receives an honorary pension for former political prisoners. But she does not get along without a regular daily routine. Any changes throw her off course. She suffers from nightmares and stomach ulcer. She has to rely on pills, and her quality of life is greatly reduced. Once a week she goes for psychotherapeutic treatment.

Overview on Mental and Somatic Health Sequelae

In the 1990s, the first research projects dealt with the psychological effects of political imprisonment in the GDR. Foremost to mention is the work of the study group of Stefan Priebe and Denis and Doris, and the group of Andreas Maercker and Matthias Schützwohl (cited below). Their studies provide the first results on traumatic disorders after political imprisonment in the GDR.

Their findings suggets a characteristic syndrome involving symptoms of depression and anxiety with vegetative complaints and increased arousal. This symptom cluster persists without improvement over a long period in more than the half of the former political prisoners. Approximately 30.0 % had a current Post-Traumatic Stress Disorder (PTSD), 60.0 % a lifetime PTSD. The level of dissociation was elevated in the former prisoner group. Intrusive recollections and hyperarousal were more common than avoidance/numbing symptoms. Regarding coping styles, there were initial indications of 2 separate coping groups: one group experienced social relationships as helpful and a second group who felt not supported by anyone. But there were also tentative signs that the experience of the political imprisonment was reinterpreted by some individuals into a “helpful” experience for their later life (Bauer et al. 1993; Priebe et al. 1993; Denis et al. 1997; Maercker and Schützwohl 1997).

Since 2000, further studies were conducted suggestingmixed results (Ehlers et al. 2000; Schützwohl and Maercker 2000; Maercker and Müller 2004). In contrast to participants without PTSD, those with chronic or remitted PTSD were more likely to perceive mental defeat and an overall feeling of alienation from other people. Chronic PTSD was also related to perceived negative and permanent change in their personalities or life aspirations. The groups did not differ in their attempts to gain control during imprisonment. Using structural equation modelling, trait-anger was shown to be directly activated by the experience of chronic posttraumatic intrusions. Social support appeared to lessen the level of anger. Principal components analysis yielded 3 factors: recognition as victim, general disapproval, and family disapproval.

Further, the role of initial reactions on the development of PTSD or related disorders was analyzed. The results can be summarized as follows: (1) Lifetime PTSD symptoms were predominantly predicted by initial reactions to trauma, and (2) chronic dissociation was predominantly predicted by trauma severity (Maercker et al. 2000). In the same way, communication behaviour after political imprisonment was investigated (Müller et al. 2000). For the detection of specific communication behaviours after imprisonment, a scale was developed. This scale yielded 3 dimensions: “conditions of silence”, “conditions of talking” (not polarized in opposite directions, but independently of each other) and, as a third factor, “emotional reactions”.

An expert opinion from 2003 can be characterized as a milestone in the research engagement with the issue of traumatic disorders following political imprisonment in GDR (Freyberger et al. 2003). It was authorized by the State Commissioner for the Records of the State Security Service of the GDR. It stated as follows:

(1) *The empirical research in the previous decade has shown that political repression can lead to severe physical and mental disorders.*
(2) *At least 100,000 persons have a mental disorder like a PTSD or other trauma-related mental disorders. . .and at least 50,000 persons have a chronification of this disorder.*
(3) *The reintegration of the traumatized people can be contributed by an open social atmosphere. This atmosphere can be enhanced by competent experts [in the context of acceptance of physical and/or mental subsequent damage following political repression] and the overcoming of shortcomings of existing laws.*

From a sociological perspective, it was stated that people from the GDR experienced 2 dictatorships: the Nazi dictatorship from 1933 to 1945 and the communist dictatorship in the GDR, both generated the development of post-traumatic disorders following political repression (Seidler and Froese 2006).

In the late 2000s, attention on the long term physical and mental sequelae of imprisoned persons was increasing again. The main research question was: *Are the sequelae still observable?* (Plogstedt 2010). Additionally, there are follow-up-surveys of studies first conducted in 1990s ("Dresden-Study"). The initial results of the last mentioned study are now available (Gäbler et al. 2009; Gäbler and Maercker 2011).

There are also long-term sequelae for non-imprisoned but detained persons. They were exposed to a variety of reprisals such as observation, different forms of social marginalization and arranged professional failure and others. At least 1 mental disorder was found in 60.0 % of the participants, affective disorders in 38.0 % (lifetime prevalence), followed by somatoform disorders with 28.0 % and anxiety with 23.0 % (Spitzer et al. 2007).

Finally, a some studies should be mentioned which analyzed the persisting long-term sequelae. The study results can be summarized as follows:

PTSD (Weißflog et al. 2011)

Based on questionnaire data, it can be estimated that 50.0 % of the people in sample of $N = 157$ former political prisoners suffer from a PTSD. Further, in this study, there was no consistent impact of imprisonment-related variables (e. g. duration of imprisonment) on health-related quality of life.

Anxiety and depression (Weißflog et al. 2010)

Anxiety of the former political detainees was significantly increased in comparison to an age- and gender matched subsample of the German general population (10 vs. 4.8; $p < 0.001$, effect size $d = 1.33$). The same applies to depression (9.7 vs. 5.6; $p < 0.001$; effect size $d = 0.92$).

Somatic complaints (Weißflog et al. 2012)

In addition to psychopathology, somatic complaints of former politically imprisoned persons were investigated. The main results were: somatic complaints in the assessed dimensions of "exhaustion", "gastrointestinal complaints", "musculoskeletal complaints", and "cardiovascular complaints" significantly increased in comparison to an age- and gender matched sample from the German general population (including high effect sizes).

After this brief presentation of some study results concerning psychopathological consequences after political persecution in the GDR, we consider that these results have to be contextualized in current social or socio-economic contexts of Germany. The consideration of the painful experiences of politically persecuted people solely through the "diagnostic lens" of psychiatric classification systems has strong limitations (e.g. not considering a social responsibility for individual disorders; see Stanciu and Rogers 2011).

Counselling and Psychotherapy

Psychodynamic Characteristics

The common characteristic of people who suffered from political imprisonment is that they come to counselling or therapy with a *suffering package charged by society and tied by the individual* (Drees 1996). The feelings that are related to the detention are usually isolated in sealed memory boxes. Affected persons have shown normal functioning in their everyday roles by dissociating the painful memories. However, most of the detained persons reach a point in their life when this regulation does not work anymore (often associated with external stimuli, e.g. a movie about the topic or a newspaper report). As a result, it may come to a crisis that affects their mental and physical health and their social relations. It is possible that affected persons react with social withdrawal and isolation. Trobisch-Lütge calls this "poisoned relations" (Trobisch-Lütge 2004). Hölter describes it as follows: *Because of the fear that everything good is destroyed again, affected persons distrust themselves and their environment* (Hölter 2003, 2005). The second case in this chapter names the first step in coping with the crisis. R. sought professional help. However, several offers did not help her*: It is all troubled, and nothing more.* Psychological treatments were terminated by her repeatedly. R. suggests that it is important that psychological professionals are familiar with the topic of mental disorders following political imprisonment. This would be one of the most important preconditions for helpful treatment. This leads up to the very special role of affects of shame on those affected. The experienced depersonalization in prison leads to intense feelings of shame (Hilgers 2006; Wurmser 2007). In the therapeutic setting, affected persons often recall (flashbacks) detailed external events such as arrest, the detention situation, establishment of the cell in the prison, and similar details. But deep hidden feelings of shame and guilt cannot be verbalized. If psychotherapists address this issue, the therapeutic relationship can be radically disturbed or the patient could terminate the therapy (Trobisch-Lütge 2004).

In the recent literature, the concept of "omnipresence" is discussed as a form of an unconscious psychic defence mechanism that is specific for people who were exposed to political persecution. As a result of political repression, the "you" in other persons is lost. According to the author, this loss is defended by an excessive and cross-border impulse for expansion. It is strongly connected with the media-moderated expansion of individual development and acceleration (Frommer 2011).

Therapist and Therapeutic Situation

On the part of therapists, there is the danger that an excessive demand is recognized when the patient reports horrible experiences of political imprisonment. The therapeutic work may be hampered by the task to cure psychological impairments that are neglected by society. It is possible that the therapist perceives his or her professional work as tampering with the situation of the formerly imprisoned persons. It could culminate in the question: Do I actually have the appropriate resources for helping in this case?

Therefore, counselling and psychotherapeutic treatment of people who were politically imprisoned have to include the historical and the current social context. The formerly imprisoned persons themselves address these issues very often in the treatment.

The Societal Context

There are some societal conditions after political imprisonment which can hinder coping with the traumatic experience. These conditions go from a lack of understanding up to allegations from the immediate social environment toward the formerly imprisoned persons (Horvay 2011). In the context of the rehabilitation process of imprisonment-related health disabilities, incomprehensible demands placed on the responsible authorities also belong to these conditions (see Denis et al. 2000). This is connected with the perception of the former detainees that their personal injury is not recognized and they are ignorant concerning mental and physical trauma within the society. Furthermore, there is a possibility to meet the former perpetrators again. This could be an additional risk factor that hinders post-traumatic coping. Feelings of revenge can also play a role in this context, as Gäbler et al. demonstrate in their study (Gäbler and Maercker 2011).

Counselling and Psychotherapeutic Service Provision

Finally, we review psychosocial service provision for trauma victims after political imprisonment. At the Federal State Commissioner for the Records of the State Security Service of the former GDR, there are counselling services, but their focus is mainly on providing advice on administrative issues (including support in the process of penal rehabilitation, assistance in the application). There are only 2 specific institutions for psychosocial counselling and psychotherapeutic treatment for people who suffer from the long term consequences of political repression. First, the Treatment Centre for Torture Victims in Berlin (www.bzfo.de), in which the victims of human rights violations throughout the world have been treated since 1998. Second, the counselling unit "Gegenwind" in Berlin (which means "Headwind"), a contact point for victims of the GDR dictatorship (www.beratungsstelle-gegenwind.de). Work scopes of this counselling unit are:

(1) Support in handling with (legal) matters of compensation,
(2) Counselling and psychotherapeutic treatment (alone or in group),

(3) Initiation and guidance of self-help groups to process traumatic experiences,
(4) Supervision and education and/or training for institutions that advise politically traumatized persons of the GDR dictatorship.

Due to the high demand for counselling and psychotherapy and only few employees in specific treatment units, there are long waiting times for treatment. Therefore, the formerly mentioned points (3) and (4) are also specially emphasized, namely the distribution of tasks across several shoulders. On the one hand, this serves to strengthen the self-help potential. On the other hand, an adequate counselling and treatment of politically traumatized people in non-specific institutions (e.g. psychotherapists in private practice) has to be ensured.

Beside structural factors, personal characteristics can hinder the use of psychosocial services (Schreiber et al. 2009). Therefore, internet-based psychosocial service provision is an alternative way to offer an appropriate treatment (Böttche et al. 2012). It also includes the possibility to avoid an under-supply of this high-risk group for chronic post-traumatic impairment.

Conclusion

More than two decades after the end of the GDR, people who were imprisoned for political reasons in the GDR are still strongly affected with mental and physical long-term consequences that are related to their experience of political repression. There is only little specific psychosocial service provision (counselling and psychotherapy) for this group. Therefore, it is necessary to integrate relevant trauma-therapeutic expertise into existing medical services through continuing education. Here it is very important to consider specific characteristics of counselling and psychotherapy of former politically imprisoned persons. On a social level, political education has to be strengthened, especially for young people in schools. Finally, the transgenerational effects (for children, grandchildren) of political imprisonment should be more examined in research (Weingarten 2004; Wohlrab 2006; Glaesmer et al. 2011; Klinitzke et al. 2012).

On the one hand, Germans are "world champions" in the reappraisal of their recent history after WW II (53,000 publications on GDR-related issues, including nearly 10,000 books). Moreover, in the early 1990s special laws as the basis for the penal and administrative rehabilitation were passed. On the other hand, the reappraisal of the GDR dictatorship is heterogeneous. For example, there were bfew judicial consequences for the perpetrators and their supporters. Only few responsible persons were convicted with small sentences.

Reappraisal in the media has won increasing importance in the last decade. The above mentioned movie *The Lives of Others* has contributed to this. On November 9th in 2011 (anniversary of the fall of the Berlin Wall), there was another movie on German television showing the story of a woman who lived in the Western part of Germany 20 years after the end of the GDR. By chance, she meets a doctor there whom she recognizes as a doctor who had treated her in the women's prison Hoheneck. She confronts him with the accusation of having "sedated" her with psychotropic drugs in prison. He denies this. He pathologizes the woman (because of her impaired mental state). The movie bears the significant title *It's not over* (Meletzky 2011). It had 5.85 million viewers in prime time (audience rate nearly 20.0 %) and reached a large public audience. Beside scientific research on psychological and physical consequences after political repression, this film is a brick in the wall in the process of reappraising the younger German history, which has not yet been completed.

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Chapter 15
The Aftermath of the European and Rwandan Genocides

Itzhak Levav

Introduction

Genocide, a termed coined by Lemkin when World War II was still raging (Lemkin 1944) is defined as *the deliberate and systematic extermination of a national, racial, political, or cultural group* (Random House dictionary 2011). Sadly, genocide is not alien to human history. In recent times, several horrifying episodes of genocide took place. In 1915, over one and a half million Armenians lost their lives at the hands of the Ottoman Empire. Later, in the years 1933–1945, close to 6 million Jews lost their lives in Nazi-occupied Europe and North African, in what it has become known as the Holocaust (Bauer 1982). More recently, in 1994, an estimated 700,000 to 1 million Tutsis lost their lives at the hand of the Hutus in Rwanda, in Africa. Sadly, those were not the only modern occurrences, others, of different magnitude, have dotted the map of Asia and the Balkan region. Rather than to be comprehensive, this chapter focuses on the psychopathological aftermath of 2 of them, the better studied Jewish Holocaust in Europe and the more recent, but less studied, Tutsi genocide in Africa.

The Jewish Holocaust

World War II ended in Europe on May 8, 1945 – but its impact on the psychopathology of the civilian survivors lingered beyond their liberation. Repeated and intrusive painful memories, further amplified by the traumatic events that followed, generated emotional wounds that took years to heal. But, as it will be shown below, healing was not the sole outcome for all survivors. The assaults on the Jewish

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population in Europe and North Africa by the Nazis and collaborating regimes included several domains:

(a) Physical, such as beatings; physical illnesses; insufficient sleep and rest; food deprivation; exposure to cold temperatures; forced labor; (b) Psychological, such as bereavement; witnessing of cruel acts perpetrated on relatives, neighbors, friends, inmates; fear of death; insult to self-worth; dehumanization; (c) Psychosocial, such as the destruction of the family nest and other social groups; confinement; loss of work and earnings; and (d) Cultural-religious, such as anti-Semitic acts of different nature, e.g., discriminatory laws; need to hide one's Jewish identity (Levav 1998).

Those genocide-related experiences were compounded by later events, such as pogroms upon return of the survivors to the places of former residence and the ordeals of their clandestine immigration to pre-state Israel, including forced internment in refugee camps in Cyprus, and the overt or hidden obstacles to settle in other countries (Bauer 1982).

As a result, psychiatrists who were called to care for the survivors had to coin a new term, "concentration camp syndrome", to encompass the manifold expressions of the still open psychopathological wounds and the early scars caused by so many adversities (Eitinger 1961a). Subsequently, professionals' attention extended to the offspring of those survivors, since they began to suspect that the overwhelming after- effects of the Holocaust would be transmitted from the survivors to their children due to faulty parenting, and a familial environment impregnated by a past shrouded by losses, pain, and humiliation (Levav 1998). What has been the psychopathological impact of the above traumas on the survivors and their offspring, as it has been captured by epidemiological studies conducted in several countries, Australia, Canada and the USA, and, particularly, in Israel where most survivors settled? (Levav 1998).

This section of the chapter opens with a short note on suicide during the Holocaust (Lester 2005), a subject rarely addressed, to be followed by a review of a number of epidemiological studies on the survivors and by the more limited number of epidemiological studies on the transmission of the after-effects to the children (Levav 1998; Solomon and Chaitin 2007).

Suicide Among Holocaust Survivors

Information on completed suicide during and after the Holocaust is limited (Lester 2005). Nevertheless, it would appear that some reliable data may exist with regard to the pre-war period, when the persecution of the Jews begun. In contrast, the data on the periods that followed, e.g., during internment in concentration camps are most equivocal, while data following liberation are absent. Although the strict definition of survivorship would preclude the examination of suicide prior and during War

World II yet, from the perspective of the genocide, it is justifiable to address this topic all 3 periods.

To cover this topic, this section relies on Lester's comprehensive review (Lester 2005). Recall here that European Jews, at least in modern Israel show relatively low suicide rates, compared to European countries with reliable reporting (Ministry of Health 2011). In other words, the suicide act, that likely followed the despair felt by the Jews when their persecution begun (see below), had to cross lines clearly drawn by old Jewish customs (e.g., burial of a person who died by suicide is beyond the regular cemetery).

According to Lester (2005), this crossing of the lines appears to have happened. For the German Jewry, this author calculated a high rate of 317 of suicides per 100,000 persons per year, from 1933 till 12 years later. Using a more conservative approach, to diminish the possible error for inflation of that figure, he settled for 158 suicides per 100,000. Lester wrote: *the suicide rate was*. . .*much higher than for Prussian or Bavarian Jews long before the war*. In addition, Lester's book recorded an example of suicide among the population of the large ghetto of Lodz, Poland. Using tentative numerators and denominators figures registered by the ghetto authorities, he estimated that in the years 1941 through 1944 the total suicide rates ranged from 22.4 to 84.6 per 100,000 people, rates which were higher than in pre-war times. If suicides were probably difficult to ascertain during the period when the persecution started, the difficulties were even higher during internment.

Tas (1951), for example, described how people, overwhelmed by hunger, disease, losses and beatings let themselves die. Indeed, the conditions were too harsh in the camps to cope with them. To ascertain how many camp inmates let themselves die (numerator) and how many Jews were in a camp at a certain time (denominator) in order to establish rates, was an impossible task. Not surprisingly then, the accounts range from statements that suicides were rare to others that they were frequent.

As said above, reliable post-war studies and rates do not exist (a study is on the way in Israel, prompted by the finding that Israelis of European origin have the highest rates of suicide of all ethnic groups in the country). If suicidal ideation is one early step on the long way to completed suicide, it is interesting to note that Carmil and Carel (1986) found no more suicidal ideation among fully functioning survivors than among a comparable group.

Obviously, with such scanty data it is safe to restrict the suspicion of high suicide rates to the start of the persecution in Germany, a country where Jews were mostly secular (and thus religious sanctions had a lesser hold). It was in Germany where they suffer the greatest collective disappointment, as society turned against them, after decades of struggles to become integrated into an admired culture, to which they contributed greatly.

The Epidemiology of Psychiatric Studies Among Holocaust Survivors

The available literature on the psychopathological impact of the Holocaust has been enriched by a meta-analysis that included 71 samples with 12,746 participants (Barel et al. 2010). The authors reviewed the available evidence on a number of dimensions, such as physical health, psychological wellbeing, post-traumatic stress symptoms, psychopathological symptoms, cognitive functioning and stress-related physiology. They found that is survivors evidenced post-traumatic stress symptoms, but did not differ with regard to other dimensions of psychopathology. The same meta-analytic study showed that living in Israel, despite the renewed stresses of war in this country, had a protective effect compared with survivors living elsewhere.

The meta-analysis showed differences in psychopathology between studies conducted in the clinics and in the community, where findings were higher in the former than in the latter. To avoid ambiguities caused by differences in design, the current review will focus solely on studies conducted in the community with unbiased samples. It should not be assumed, however, that this stand implies that the reality found in the clinics or the findings made in the claims offices are to be dismissed. Both are valid in their own merits. The intention is to avoid ambiguities and maintain a research rigor that, in this author's opinion, enables a more adequate and universally understood language of scientific communication since the studies follow a common research design and analysis.

In contrast to the large number of clinic-based studies (complemented by studies based on compensation claims) Eitinger's psychiatric epidemiology inquiry, although mixed with clinic samples, was for many years the only one that investigated psychiatric syndromes in the community (Eitinger 1961a). Thus his study only in part met the inclusion criteria adopted for this review. Better suited to fully meet the criteria is a relatively recent epidemiological study, see below (Sharon et al. 2009).

All other epidemiological studies have relied on screening measures that ascertained non-specific psychopathology, often known as emotional distress. In addition to these studies, where the dependent variable consisted of either clinical syndromes or emotional distress, there is a third group of studies that explored the vulnerability of Holocaust survivors to renewed traumas, such as war-related events and following the diagnosis or treatment of a life-threatening illness. Those 3 groups of studies are dealt in that order.

Clinical Psychiatric Syndromes as Holocaust-Dependent Variables

Psychiatrists who examined survivors had to face an unfamiliar mental condition for which they had no accepted definition. Also, the etiology of such a condition was not entirely clear. Initially, the presence of comorbid physical disorders, the effect of protracted starvation and the knowledge that survivors suffered from head traumas subsequent to beatings led professionals to posit that the condition was primarily physical rather than psychological or mixed. Eitinger was not the only clinician who argued that (Helweg-Larssen1952). Since the survivors were affected by a constellation of different symptoms, psychiatrists labeled the condition *KZ* syndrome (the acronym for concentration camp in German) alluding, simply, to where it originated (Eitinger 1961b).

Would such a syndrome match the category of PTSD in the *Diagnostic and Statistical Manual of Mental Disorders-4th Edition* (*DSM-IV*) – or, alternatively, the category bearing the more suggestive denomination "enduring personality change after catastrophic experience," as in the *International Classification of Disease (ICD-10)*? The likely answer to this question is, yes, but partially only. Eitinger identified 11 symptoms as characteristic of the *KZ* syndrome (Eitinger 1961b). For him, the number of symptoms present in any combination was correlated with the degree of certainty that the syndrome was present. Of those symptoms, a few overlap with the A to D criteria of PTSD, 309.8, of the *DSM*-IV. Conceivably, some of those items might be residual symptoms of a pathological grief reaction, thus raising the possibility that the *KZ* syndrome included both PTSD and bereavement-related symptoms (Levav 1998). The personal losses that the survivors endured (Eitinger, in the interviews he conducted with survivors in his Israel-based study in 1964, found that almost all respondents had lost family members) – with few or no possibilities for adequate mourning – would give support to such a notion.

Eitinger studied 3 contrasting samples of population groups in Israel and Norway. In Israel, the samples were selected from psychiatric hospitals (n = 396); psychiatric clinics (n = 92); and *kibbutzim* – collective societies – (n = 66). In Oslo, the samples were from psychiatric hospitals (n = 96), claim compensation offices (n = 152); and former prisoners (n = 50). All 6 groups had been subjected to differing degree of persecution, from mild to most severe. Eitinger identified differing proportions of the "concentration camp syndrome" by group. In Israel: among the inpatients, the rate was 26.8 %; the clinic patients, 55.4 %; and among the fully functioning kibbutz members, it was 34.9 %. In Norway, the proportion among the inpatients was 36.4 %; claimants, 80.9 %; and 6.2 %, among fully functioning former war prisoners. In conclusion, the effects of the Holocaust were detected years later and in different social environments.

The second fully-based community study, described here at some length, was part of the Israel National Health Survey (INHS) (Sharon et al. 2009), conducted in 2003–2004. Given the time elapsed from WWII, it might remain as the only community study that examined relevant psychiatric diagnoses, such as mood and anxiety disorders. In addition, it explored emotional distress; sleep disturbances; complaints of pain; body mass index (BMI); selected self-reported chronic medical conditions; smoking; and mental health services utilization.

The Holocaust group included European Jews who immigrated to Israel after they had fled Nazi-controlled countries and those who went through the full war. Thus the period covered extended from before the start of WWII and continued until 1950, when survivors ceased to arrive in Israel in large numbers. The comparison group was comprised of Europe-born Jews who arrived before 1939 and had not lived under a Nazi regime, and Israel-born respondents whose fathers were of European origin.

The interview schedule included: (1) socio-demographic variables; (2) the World Mental Health Survey version of the Composite International Diagnostic Interview (CIDI) (Levav et al. 2007). CIDI enabled the diagnosis of selected psychiatric disorders according to the *ICD-10* and the *DSM*-IV classification systems, as follows: anxiety disorders (panic disorder, generalized anxiety disorder, agoraphobia without panic disorder and post-traumatic stress disorder, PTSD); and mood disorders (major depressive disorder and dysthymia). Prevalence rates were estimated when respondents' psychopathology met the 12-month and lifetime diagnostic criteria for *DSM*-IV disorder. All participants answering positively to a specific screening item were asked the questions in the respective diagnostic section of CIDI. Organic exclusion criteria were taken into account in determining *DSM*-IV diagnoses; and, lastly, (3) sleep disturbances. (To meet criteria, respondents had to report at least one difficulty in falling and/or staying asleep, and/or waking up too early. The disturbances had to be present during the preceding 12 months almost nightly, and for 2 weeks or more.)

The schedule also included exposure to traumatic events. The authors adjusted for the possible effects of stressful events on outcome variables, excluding those related to the Holocaust.

Among the survivors ($N = 145$ individuals, 55 were in concentration camps; 36, in ghettos or in hiding; and 54, fled their country under a Nazi regime (14 of them before the war begun). In the comparison group ($N = 143$): 31 were born in Europe and 112, in Israel. Survivors were significantly older (mean age = 74.6, $SD = 6.9$) than their counterparts (mean age = 69.0, $SD = 8.5$), $p < 0.001$). There were significant age differences among the 3 Holocaust subgroups ($p < 0.01$). 2 subgroups ($p < 0.01$), and closer in mean age to the subjects in the comparison group. The proportion of survivors with higher education was significantly lower than among those in the comparison group (23.0 % and 47.0 %, respectively, $p < 0.001$), a reflection of their truncated schooling.

Half of the survivors defined themselves as secular, in contrast to 70.0 % of the comparison group ($p < 0.001$). There were no significant inter-group differences in gender and marital status. On average, survivors were 17.5 years old ($SD = 6.8$) at the time of immigration to Israel. Survivors who were in ghettos or in hiding (mean age = 14.9, SD = 6.4) were significantly younger upon immigration than those from concentration camps (mean age = 20.4, SD = 5.5, $p < 0.01$), but not from survivors who had fled Europe (mean age = 16.5, SD = 7.3). Survivors lived apart from one or both parents below the age of 16 with greater frequency than individuals of the comparison group (26.0 % and 16.0 % respectively; $p = 0.055$).

Exposure to Traumatic Events

The exposure to at least one traumatic event (e.g., loss of relatives) in the past was significantly higher in the survivor than in the comparison group, 94.0 % and 83.0 %, respectively (OR = 3.17, 95.0 % CI = 1.38 – 7.24), but the difference was all related to the Holocaust. Therefore, this variable remained uncontrolled.

Anxiety Disorders

Statistically significant differences for the combined anxiety disorders between survivors and their counterparts were noted for both lifetime respectively (16.0 % and 4.0 %, OR = 4.8, 95.0 % CI = 1.8 – 12.4) and 12-month prevalence rates (7.0 % and 1.0 %, OR = 12.1, 95.0 % CI = 1.5 – 99.3). These differences remained significant after controlling for age, religious observance and education (OR = 6.8, 95.0 % CI = 1.9-24.2; and OR = 22.5, 95.0 % CI = 2.5 – 204.8, respectively). When specific anxiety disorders were examined, PTSD, agoraphobia and generalized anxiety disorder were not statistically significant between the 2 groups. Survivors had higher lifetime rates of panic attacks (11.0 % and 1.0 %, respectively, OR = 9.8, 95.0 % CI = 2.2 – 44.9), including after control for confounders (OR = 9.2, 95.0 % CI = 1.4 – 60.9). There were no differences between the 3 Holocaust subgroups with regard to anxiety disorders.

Mood Disorders

No statistically significant differences were found between survivors and comparison groups for lifetime and 12-month prevalence rates of mood disorders, both unadjusted and adjusted for confounders.

Sleep Disturbances

The percentage of survivors who reported at least one sleep disturbance was twice higher (62.0 %; n = 90) than for individuals of the comparison group (33.0 %; n = 46) (OR = 3.4, 95.0 % CI = 2.0 – 5.6). This difference remained highly significant following control for age, education, religious observance and past year anxiety and mood disorders (OR = 2.5, 95.0 % CI = 1.4 – 4.4).

In conclusion, this single but small community-based psychiatric epidemiology study, which used standard methods of psychiatric diagnoses, suggests that the psychopathological impact of the Holocaust, including sleep disturbances, was present six decades thereafter among non-institutionalized individuals. The evidence was elicited for survivors who went through different degree of exposure (e.g., from ghettos to extermination camps) and at different ages. Note as well, that the chances that the replies to the questionnaire were contaminated by secondary gains were almost or entirely absent. The design took care of this by placing the questions on the Holocaust after the psychiatric diagnostic items.

Emotional Distress and Psychiatric Symptoms as Dependent Variables

Several epidemiological studies were conducted in different community-based settings using psychiatric screening scales, such as an abbreviated Cornell Medical Index (Levav et al. 1977), the SCL-90 (Derogatis et al. 1973) and the 12-General Health Questionnaire (Goldberg et al. 1997), as well as a number of different measures of mental health, e.g., the Impact of the Event Scale (Horwitz et al. 1979). Those studies span a number of years, 25–60 years after the war, and included both middle-aged and elderly respondents. Importantly, most of them they were conducted in contexts totally independent from secondary gains that could have compromised reliability. The studies were conducted in different countries and at different times.

Antonovsky et al. conducted a study limited to women aged 45–54, about 25 years after the end of the war (Antonovsky et al. 1971). They used a battery of items measuring diverse health domains, including mental health, to assess adaptation to menopause: (1) overall menopausal symptoms, "psychic menopausal symptoms," "psychosomatic" and "somatic menopausal symptoms"; (2) overall ratings by physicians, comprising of physical and emotional symptoms and functioning; (3) wellbeing, self-evaluation of overall life situation and coping, and mood tones and worries scales; and (4) role satisfaction. Their study included 287 subjects drawn from the Population Register who were born in Central European countries; of those, 77 were survivors. The household-based protocol included a semi-structured psychiatric interview.

According to the respondents' general practitioners, 33.0 % of the survivor patients randomly included in the survey were in a worse health status than the non-Holocaust comparison group (10.0 %). Lower moods were reported by 61.0 % and 46.0 %, respectively. For the worry scale, a proxy for anxiety, the respective proportions were 56.0 % and 30.0 %. All those differences were statistically significant. In conclusion, the survivors evidenced poor adaptation to the psychological problems of the climacteric period. However, Antonovsky, a pioneer on health promotion and more interested on health than on disease, also noted that a considerable proportion of the survivors were rated by the physicians as being in excellent or quite good health for women of their age.

Levav and Abramson (1984) studied adult women and men who had survived concentration camps ($n = 360$) and a suitable comparison group of Europe-born individuals who had not been in concentration or extermination camps, but were in Nazi-occupied countries ($n = 1{,}070$). Both groups, residents of a Jerusalem neighborhood, were administered an abbreviated scale of the Cornell Medical Index, a screening instrument developed by US researchers during WWII (Levav et al. 1977). This subscale, which measures feelings of anxiety, sadness and hopelessness, was tested and found to possess adequate validity and reliability. The interviews took place about 25 years after the Holocaust. Survivors' mean scores were statistically significantly higher than the scores of the comparison group, following adjustments for age, education and respondent's appraisal that she/he had gone through a hard life.

Fifteen years later, a second group of investigators studied residents of the same Jerusalem neighborhood to investigate the stability of the above results (Collins et al. 2004). They compared survivors both men ($n = 130$) and women ($n = 58$), mean ages 68.0 years, $SD = 9.0$, and 67.2 years, $SD = 8.0$, respectively, with a group of Europe-born Jews that had been not been exposed to the Holocaust ($n = 486$). Of this group, 202 were men and 284 were women, mean ages 69.0 years, $SD = 8.7$; and 69.0 years $SD = 9.6$, respectively. They used the same abbreviated CMI scale and the 27-item demoralization scale of the Psychiatry Epidemiology Research Interview (PERI), whose psychometric properties had been researched previously in Jerusalem (Shrout et al. 1986). The female group of survivors reported poorer emotional health (CMI mean score, 2.0 $SD = 2.0$; PERI mean score, 32.7, $SD = 16.1$) than the comparison group (CMI mean score, 1.5, $SD = 1.9$; PERI mean score, 28.8, $SD = 14.8$). The level of statistical significance was $p < 0.05$, adjusted for age but uncontrolled for education. This difference in emotional health was not found among men. In turn, men survivors, but not women survivors, reported statistically significant poorer self-appraisal of health (mean score, 2.4, $SD = 0.9$) than non-Holocaust-exposed men (mean score, 2.2; $SD = 0.08$).

Carmil and Carel's study (1986) included a large number of almost all fully employed survivors exposed to a diversity of Holocaust situations ($n = 2{,}159$) and a suitable comparison group ($n = 1{,}150$). Subjects were medically screened in a semi-private health organization for reasons unrelated to their past experiences. Physical health measures such as cholesterol, blood glucose and systolic blood pressure did not differ between both groups of individuals. Emotional distress was measured with a set of items extracted from the battery of questions routinely presented to the screened individuals, tapping anxiety, depression, fears, loss of emotional control due to anger and sleeping problems. In addition, respondents were asked whether they suffer, currently or in the past, from serious psychological problems or were seen regularly by a psychologist or a psychiatrist. The results showed that there were statistically significant differences between both groups of women for all items – except sleep disturbances. In contrast, the differences between both groups of men were not statistically significant. Note here that all respondents were fully functioning individuals who came for work-related screening tests.

Other Israeli studies focused almost exclusively on elderly subjects that had been children, adolescents or young adults during World War II, as shown henceforth. The case of the elderly is special since this is a time of life where the individual may look both inwards and to back times. Those reminiscences may bring back the past with renewed strength. The picture that emerged from community-based studies in which those survivors were compared with Europe-born Israelis who did not undergo the Holocaust showed impairments in some, but not in all areas of psychological and social functioning.

In the INHS cited above, which included subjects aged 60 and above (Sharon et al. 2009), emotional distress was measured using the General Health Questionnaire, GHQ-12. The time frame for the items was referenced to the previous 30 days. The internal reliability consistency was measured by Cronbach's *alpha*, 0.83 (Sharon et al. 2009). The mean score for the survivors (19.9, $SD = 6.1$) was statistically higher than that of the comparison group (16.7, $SD = 4.8$); $p < 0.001$, adjusting for demographic variables.

Previously, Landau and Litwin (2000) studied 400 community residents aged 75 years or older who were selected from the Population Register in Israel in 1997, including individuals residing in settings for independent older adults. Of them, 194, or 50.0 %, agreed to be interviewed. The index group of survivors immigrated after 1945 ($n = 91$) and the comparison group, presumably all born in Europe, arrived before that year and did not go through the Holocaust. The 2 groups were closely similar with regard to sociodemographic characteristics (e.g., age, gender, education). The dependent variables included measures of mental health (indicators of affect, depression and life satisfaction) and an inventory of PTSD symptoms (Horwitz et al. 1979). The modifying variables of social support (Auslander and Litwin 1991), locus of control (Rotter 1966) and a modified social network schedule originally developed by Cochran et al. (1990) were included. Men survivors had statistically higher PTSD mean scores than those in the comparison group while women reported lower self-rated health.

Shmotkin et al. (2003) noted that *survivors fared worse than prewar Europe-born Israelis in certain but not all psychosocial domains*. As mentioned above, Collins et al. (2004) found in their community-based study poorer self-appraised health in men and increased emotional distress in women survivors compared with suitable controls, but no higher mortality within a 10-year period. Only Ben-Zur and Zimmerman (2005), who did not explore psychiatric disorders, found negative affect and greater ambivalence over emotional expression, and lower results on psychosocial adjustment.

Amir and Lev-Wisel studied small samples comprised of 43 Holocaust survivors recruited from survivors' organizations and 44 individuals who were in Israel during WWII or in countries not involved in the war (the sampling origin of the latter was not specified) (Amir and Lev-Wisel 2003). Both groups were administered the PTSD Inventory (Horwitz et al. 1979); the SCL-90, to screen for psychopathology (Derogatis et al. 1971); and the WHOQOL-Bref, to measure quality of life (The WHOQOL Group 1998). In addition, candidates for the comparison group were administered a list of stressful life events. To maximize the specificity of the comparison, those respondents were selected for the study if one of the items was positive. Results showed statistical significant differences for PTSD mean scores (survivors 4.8 SD = 0.4; comparison, 3.1 SD = 1.1); and 4 subscales of the SCL-90 (depression, anxiety, somatization, anger-hostility). They all were higher among survivors. WHOQOL-Brief was lower for survivors in 3 (physical, psychological and social) of the 4 domains explored.

The largest community study registered in the literature is summarized henceforth at some length because of its large scope (Shemesh et al. 2008). This study examined emotional distress and other health dimensions, such as self-reported chronic health conditions, sleep problems and social activities, among both survivors aged 60 and above and a suitable comparison group living in the community. This study, nested in a comprehensive health and social survey, was conducted in 1997 and 1998. Respondents were between 7 and 28 years of age by the end of World War II.

The interview schedule covered, among other items: (1) socio-demographic information; (2) emotional distress, measured by a version of the 12-GHQ (Goldberg et al. 1997), which used a dichotomous Yes/No answer; the time frame referred to "recent times." Cronbach's *alpha* internal reliability for the scale was 0.85 for the survivors, and 0.80 for the comparison group; (3) self-reported chronic illnesses and condition: (*Has your doctor ever diagnosed in you any one of these illnesses: hypertension; heart attack, myocardial infarction; stroke; diabetes; asthma; herniated disc; cataracts; glaucoma; cancer; hip or pelvic fracture, osteoporosis; Parkinson's disease?*); (4) sleep problems (difficulty in falling asleep, difficulty in staying asleep and early- morning awakening); (5) visits to the family physician in the preceding 6 months; (6) social activities: (*Do you attend a social club or go to lectures (other than in your club), movies, theatre, concerts or other events such as sports?*; *Are you involved in volunteer work?; and Do you have any hobbies?*; and (7) life satisfaction (*Are you satisfied with your life in general?*, and *Are you satisfied with the way you spend your time?*).

Exposure to the Holocaust was measured using a single item: *Did you live in a country under Nazi occupation?* If positive, the respondent was asked whether he/she had stayed in a ghetto, gone into hiding, sent to a work or extermination camp or been in none of these situations; the more severe situation was coded. The survivors were compared with Europe- and North and South America-born elderly (the latter also from European ancestry) who did not live in Nazi-occupied countries. To avoid bias arising from secondary gain effects, questions about the Holocaust were included within sections that addressed a variety of other issues. The interviews were conducted in Hebrew in the respondent's home. Emotional distress was measured by the sum of positive GHQ responses and analyzed as a continuous variable. Sleep problems were analyzed either as no problems or at least one of them present. Chronic diseases/conditions were analyzed by the presence of none, 1, 2 or 3 and more. Both dimensions of life satisfaction were combined into one variable.

Socio-demographic variables: Table 15.1 describes selected sociodemographic characteristics of both groups. Statistically significant inter-group differences were found for marital status (survivors included more divorced/separated and widowed persons than the comparison group); and for years of education (more survivors were in the 0 to 8 years category than the comparison group).

Results from the bivariate analysis: Table 15.2 gives details on the survivors' exposure to war situations. There were more men who had been in labor camps, $p < 0.0001$. Survivors that had been in ghettos or extermination camps had fewer years of education.

Emotional distress: Survivors had a statistically significant higher mean emotional distress score, 2.7 (SE = 0.1), than their counterparts, 2.1 (SE = 0.1) ($p < 0.003$). This difference remained statistically significant across gender ($p < 0.004$); marital status ($p < 0.005$); age groups ($p < 0.002$); and chronic health conditions ($p < 0.02$); and marginally for education ($p < 0.06$) (See Table 15.3).

The mean score was higher for survivors who had been in ghettos (2.8, SE = 0.1, $p < 0.2$); hiding (3.2, S E = 0.2, $p < 0.01$); forced labor (3.1, SE = 0.2, $p < 0.01$) and extermination camps (2.9, SE = 0.2, $p < 0.04$), compared to survivors who had lived in Nazi-occupied countries but were in none of those situations (2.2, SE = 0.1). Pair-wise comparisons between those in a ghetto, in forced labor and in extermination camps were not statistically significant.

Other health-related dimensions: Except for visits to the family physician in the preceding 6 months and for some social activities, attendance at weddings and parties, the following variables did show statistically significant differences between both groups: sleep problems ($p < 0.0002$); number of chronic medical conditions ($p < 0.02$); social activities other than the one mentioned above – hobbies ($p < 0.01$); participation in social clubs ($p < 0.005$); and attendance to lectures, movies ($p < 0.0005$) and volunteer work ($p < 0.0001$). In all these situations, the results were less favorable among the survivors. The variables "satisfaction with life" and "satisfaction with the way time is spent" were significantly reported as more favorable in the comparison group than among survivors, $p < 0.04$ and $p < 0.05$ respectively.

Table 15.1 Holocaust survivors and comparison group by sociodemographic characteristics and number of chronic health conditions, unweighted and weighted samples (Levav et al. 2008)

	Survivors			Comparison group			
	Unweighted		Weighted	Unweighted		Weighted	
	N = 896		N = 145,437	N = 331		N = 51,231	
Variables	N	%	%	N	%	%	Chi square, p-value
Gender							$\chi^2 = 0.03$, df = 1 p = 0.85
Women	436	48.7	55.0	155	46.8	54.5	
Men	460	51.3	45.0	176	53.2	45.5	
Age groups							$\chi^2 = 5.12$, df = 4 p = 0.28
60-64	94	10.5	14.3	39	11.8	16.8	
65-69	142	15.9	19.5	57	17.2	20.7	
70-74	216	24.1	25.8	58	17.5	20.6	
75-79	240	26.8	22.0	88	26.6	20.3	
80+	204	22.8	18.3	89	26.9	21.6	
Marital status							$\chi^2 = 17.69$, df = 4 p = 0.001
Married	556	62.1	63.2	214	64.6	65.5	
Never married	23	2.6	2.0	16	4.8	4.4	
Divorced/separated	31	3.5	3.0	3	0.9	0.3	
Widowed	286	31.9	31.7	98	29.6	29.8	
Years of education							$\chi^2 = 32.52$, df = 5 $p < 0.0001$
0	13	1.5	1.5	7	2.1	1.6	
1–4	92	10.3	9.7	10	3.0	3.5	
5–8	267	29.8	28.6	68	20.5	20.4	
9–12	328	36.6	37.5	126	38.1	37.4	
13–15	89	9.9	10.2	60	18.1	18.4	
16+	107	11.9	12.4	60	18.1	18.6	
No of chronic health conditions							$\chi^2 = 8.73$, df = 3 p = 0.03
None	173	19.3	19.3	85	25.7	26.5	
1	299	33.4	33.2	111	33.5	34.0	
2	233	26.0	26.0	76	23.0	21.8	
3+	191	21.3	21.5	59	17.8	17.7	

Table 15.2 Holocaust survivors and comparison group by sociodemographic characteristics and type of WWII experience, weighted percent (Levav et al. 2008)

	Survivors					
	Ghetto	Hiding	Work camp	Death camp	Other[a]	Comparison group
Variables	N = 56	N = 113	N = 184	N = 187	N = 356	N = 331
Gender						
Men	36.1	35.2	71.2	44.3	38.0	45.5
Women	63.9	64.8	28.8	55.7	62.0	54.5
Age groups						
60–64	10.7	23.0	5.0	5.5	21.0	16.8
65–69	21.6	21.6	13.3	18.3	22.0	20.7
70–74	25.2	21.2	30.9	40.3	17.7	20.6
75–79	27.1	21.2	25.6	20.5	20.6	20.3
80+	15.4	13.0	25.3	15.4	18.7	21.6
Marital status						
Married	53.6	69.3	70.4	60.6	61.0	65.5
Never married	3.3	0.5	1.2	1.0	3.4	4.4
Divorced/separated	2.6	0.7	2.5	4.4	3.2	0.3
Widowed	40.5	29.5	25.9	34.0	32.4	29.8
Years of education						
0	-	3.7	1.7	-	1.9	1.6
1–4	12.0	5.8	15.5	10.1	7.7	3.5
5–8	41.7	25.8	33.8	32.1	23.3	20.3
9–12	34.2	38.1	27.9	43.6	38.9	37.4
13–15	6.4	12.1	10.7	9.0	10.8	18.4
16+	5.6	14.5	10.4	5.2	17.4	18.6
No of chronic health conditions						
0	16.5	15.8	17.4	19.7	21.4	26.5
1	39.9	40.9	28.3	23.2	35.6	34.0
2	15.8	25.3	29.8	26.1	26.0	21.8
3+	27.8	18.0	24.4	28.0	17.0	17.7

[a] Were in the Holocaust but in none of the other situations

Results from the Multivariate Analysis

Emotional distress: The model included the following variables: Survivor/comparison groups, gender, age, education, marital status and number of chronic health conditions. The respective effect of the variables on emotional distress is shown in Table 15.4. The direct effect of the variable Holocaust, that was present in the bivariate analysis, lost its statistical significance ($p < 0.11$) adjusting for variables affected by the Holocaust, such as the number of chronic medical conditions and years of formal education. Similarly, only the effect of hiding remained highly significant, after all other variables in the model were controlled ($p < 0.002$).

Table 15.3 Holocaust survivors and comparison group by mean emotional distress scores by demographic variables (Levav et al. 2008)

	Survivors (1)			Comparison group (2)			(1) vs. (2)
Variable	Mean	SE	p	Mean	SE	p	p
Total	2.7	0.1	–	2.1	0.1	–	0.0028
Gender							0.0035
Women	3.0	0.1	1.0000	2.3	0.1	1.0000	
Men	2.3	0.1	0.0001	2.0	0.1	0.2241	
Age groups							0.0018
60–64	1.6	0.2	1.0000	1.4	0.1	1.0000	
65–69	1.9	0.2	0.3545	1.6	0.1	0.6572	
70–74	2.6	0.2	0.0013	1.7	0.1	0.3797	
75–79	3.2	0.2	0.0001	2.0	0.2	0.0719	
80+	4.1	0.3	0.0001	4.1	0.3	0.0001	
Marital status							0.0047
Married	2.2	0.1	1.0000	1.8	0.1	1.0000	
Not married	3.5	0.2	0.0001	2.7	0.2	0.0030	
Years of education							0.0564
0–8	3.6	0.15	1.0000	2.6	0.10	1.0000	
9–12	2.3	0.13	0.0001	2.3	0.11	0.4866	
13–15	2.1	0.14	0.0001	2.0	0.05	0.2063	
16+	1.5	0.07	0.0001	1.3	0.04	0.0015	
No of chronic health conditions							0.0214
0	1.4	0.10	1.0000	1.4	0.08	1.0000	
1	2.3	0.13	0.0001	1.8	0.09	0.1418	
2	2.7	0.14	0.0001	2.4	0.11	0.0091	
3+	4.4	0.17	0.0001	3.7	0.18	0.0001	

1.0000 = reference group

Other health-related dimensions: the multivariate analyses that included the same set of controlled variables as earlier (e.g., education, etc.) showed significant differences for sleep problems ($p < 0.001$); and for social activities (participation in a social club, $p < 0.001$; attendance to lectures/cinema, $p < 0.03$; engagement in volunteer work, $p < 0.001$). In sum, survivors had more emotional distress than comparison groups after controlling for confounders, at different periods of time following different types of exposure to the Holocaust.

Authors in Sidney, Australia (Joffe et al. 2003), investigated the psychological status and social functioning of Holocaust survivors using a large battery of instruments: Posttraumatic Stress Disorder (PTSD) assessment, ratings on the General Health Questionnaire, Brief Psychiatric Rating Scale, Impact of Event Scale, Mini-Mental Status Examination, and Instrumental Activities of Daily Living and Social Functioning. From 814 responses to a community survey of Jewish elders (aged 60 years or older), survivors ($n = 100$), refugees who had not experienced the Holocaust ($n = 50$), and Australia/English-born persons ($n = 50$), were randomly selected for a semi-structured interview. On all psychological measures, survivors were functioning worse than refugees and Australia/English-born

Table 15.4 Predictive model for emotional distress scores among Holocaust survivors *vs*. comparison group, weighted data (Levav et al. 2008)

Variables	Beta	SE	p
WWII Experience			0.105
Holocaust	−0.2	0.2	0.105
Comparison[a]			1.0
Gender			0.0081
Women	−0.4	0.1	0.0081
Men[a]			1.0
Age groups			0.0001
60–64[a]			1.0
65–69	−0.1	0.2	0.7739
70–74	0.3	0.2	0.1488
75–79	0.6	0.3	0.0141
80+	1.7	0.3	<0.0001
Marital status			0.0141
Married[a]			1.0
Not married	0.5	0.2	0.0141
Years of education			0.0001
0–8[a]	–		1.000
9–12	−0.8	0.2	0.0001
13–15	−1.0	0.2	0.0001
16+	−1.2	0.2	0.0001
N° of chronic health conditions			0.0001
0[a]	–		1.0
1	0.6	0.2	0.0020
2	1.0	0.2	0.0001
3+	2.2	0.3	0.0001

$R^2 = 0.23$, $F = 26.39$, $df = 13$, $p < 0.0001$

[a] Reference group

persons. The findings showed that the more severe the trauma that was reported, the greater the psychological morbidity. In contrast, the 3 groups were similar in social and instrumental functioning. The authors concluded: *despite normal social and daily functioning, psychological morbidity following massive trauma endures* (Joffe et al. 2003).

Authors in Montreal, Canada, studied psychological well being among Jewish residents of stable communities, 33 years after the Holocaust. This well designed study yielded analogous results as the above studies (Eaton et al. 1982).

Exposure to the Holocaust as a Vulnerability Factor for Renewed Threats

Shuval (1957–1958), who studied immigrants to Israel residing in transit (tent) camps during the early 1950s, showed that the traumas of the genocide seemed to have hardened them, thus enabling satisfactory coping with the difficult living conditions in those camps. Shuval used the term “steeling effect.” Rutter (1987) made a similar claim in a discussion on resilience, suggesting that past trauma could facilitate coping successfully with a new stressful event. In contrast, other authors have posited past traumas as a risk factor for renewed stressors.

In more recent years, 3 sets of studies described below identified the Holocaust as a risk factor whenever survivors were confronted with life-threatening situations, e.g. war, the diagnosis/treatment of cancer and open-heart surgery. However, as noted below as well, in some of the research studies the differences between the survivors and their counterparts were of marginal significance when confounding variables were controlled.

The Threat of War-Related Events

Solomon and Prager (1992) studied the psychopathological reaction to the Iraqi Scud missiles that were aimed at Israel during the 1991 Gulf War, among both elderly Holocaust survivors ($n = 61$; mean age, 68.3) and elderly individuals that had not been in Europe during WWII ($n = 131$; mean age, 72.9). All subjects answered a questionnaire including sociodemographic items; a scale measuring sense of safety; a state-trait anxiety inventory; and psychological distress during war time. In all dependent variables taken alone, the elderly survivors scored worse than their counterparts: they perceived higher levels of danger; had more emotional distress scores; and had higher levels of both state and trait anxiety. Since the Holocaust survivors were younger at the time of exposure, had fewer years of formal education, were closer to the sites were the missiles exploded, and were more religious than their counterparts, the authors performed a multivariate analysis controlling for these variables. The results showed significant differences ($p < 0.05$).

Dekel and Hobfoll (2007) conducted a theory-driven study purported to ascertain the vulnerability of Holocaust survivors to renewed war stress. The authors relied on the “conservation of resources theory” that submits that individuals seek, retain and protect resources. For them, psychological stress occurs when personal and/or interpersonal resources are lost, threatened or invested without return. Survivors, who have been exposed to losses of resources during the WWII, were at risk of becoming symptomatic when exposed again to major threats such as the terrorist attacks that took place during the second Palestinian *Intifada* (Arabic for uprising) that begun at the end of September 2000. In 2003, the authors selected 102 Holocaust survivors listed in organizations for survivors. Their interview schedule included several measures such as Holocaust experiences, additional stressful events, loss of psychosocial resources, distress measures e.g., the PTSD inventory (Horwitz et al. 1979) and the Brief Symptom Inventory-BSI (Derogatis and Spencer 1982). Nearly 1 in 5 survivors was exposed to direct or indirect acts of terror. Because the authors did not include a comparison group, they borrowed mean scores from another local study (Gilbar and Ben 2002). Survivors had statistically significant distress scores than the norm used for comparison. However, none of the comparisons were adjusted for relevant variables such as education. Despite these limitations, what remains of interest is that survivors who experienced severe losses (such as loss of spouse or children during WWII) had higher scores in both the PTSD inventory and in the summary results of the BSI when they faced additional losses during the second *Intifada*.

Threats During Severe Medical Conditions

Several psycho-oncologists conducted a number of successive studies from 1984 to 2007 aimed at studying the effect of the Holocaust on survivors who had been diagnosed or were under treatment for cancer (Baider and Sarrel 1984; Baider et al. 1992).

In one of these studies (Baider and Sarrel 1984), survivors (N = 53), in active treatment or in follow up for cancer" were compared with patients with cancer *who have had no [preceding] severe life threats*. The latter patients had more years of education, mean, 12.8, SD = 4.4, compared to 11.6, SD = 3.4, respectively; however the differences were not significant. The time elapsed since cancer diagnosis was: survivors, mean 45 months, and comparison, 50 months. The groups were comparable with regard to cancer status. The measures used were the IES-Impact of Event Scale (avoidance/intrusion subscales) (Horwitz et al. 1979), the BSI-Brief Symptom Inventory (Derogatis and Spencer 1982) for distress, and the PAIS-Psychosocial Adjustment to Physical Illness Scale (Derogatis and Lopez 1983) to assess the impact of cancer on functioning. Avoidance and intrusiveness mean scores were higher among the survivors. Similar results were found for BSI mean scores. As for PAIS, the differences that were found did not reach statistical significance.

Another study by the same group attempted to overcome the lack of baseline information (Baider et al. 1993). Holocaust survivors who had cancer (n = 57) were compared with non-randomly selected survivors free of cancer (n = 50). In this study, only the BSI scale (Derogatis and Spencer 1982) was applied. Survivors with cancer showed significant higher mean scores in 9 of the 10 BSI subscales. The lack of control for education in the multivariate analysis and of information of the degree of traumatization during the Holocaust undermined the study findings.

The last study (Baider et al. 2008) reported by this research group also is relevant for the section on offspring of Holocaust survivors (see below). This study included 4 groups of mother-daughter dyads, as follows: (1) patients with breast cancer whose mothers were Holocaust survivors (n = 20); (2) similar type of patients with "no traumatized mothers" (n = 19); (3) cancer-free daughters of survivors (n = 22); (4) cancer-free daughters of "non-traumatized mothers (n = 20).

Except for a larger percent of married mothers in group (c) and a 20.0 % presence of Israel-born among the "non-traumatized mothers," there were no other statistical differences with regard to socio-demographic variables. Respondents were administered the BSI (Derogatis and Spencer 1982); the IES (Horwitz et al. 1979); MAC-the Mental Adjustment to Cancer Scale (Greer et al. 1989), a 40-item instrument to measure coping styles with regard to cancer; and the PFS-Perception of Family Support (Procidiano and Heller 1983). All scales and subscales had adequate reliability coefficient measures. The results showed that the daughters with cancer, whose mothers were Holocaust survivors, had statistically significant higher distress sores than their cancer-free counterparts, and higher than daughters whose mothers were "non-traumatized." The analysis of the comparison of mothers who were survivors with daughters with and without cancer did not show statistical differences. Mothers and daughters in group (1) had higher IES scores than those from the "non-traumatized" group (2). MAC was equal in both groups of daughters, groups (1) and (2).

Hantman and Solomon (2007), who also tested the vulnerability of Holocaust survivors to cancer, included a novel research dimension in their inquiry. They explored the survivors' reactions according to 3 categories of overall coping styles related to Holocaust experiences, known as the "victims," "fighters" and "those who made it" (Danieli 1982). As above, the first objective of their study was to establish the differential degree of reaction to the stress of cancer in the survivors and their counterparts. The second objective explored the survivors' reactions according to their overall coping style. The study took place 55 years after WWII. Convenience samples of patients, both survivors ($n = 150$) and non-survivors who had lived in European countries during WWII but not under Nazi occupation ($n = 50$) were selected from hospital-based oncology services. The comparison group had higher levels of education and religiosity than the survivor group, but both groups did not differ with regard to stage or type of cancer. As in previously described studies, the authors used the 17-item PTSD inventory (Solomon et al. 1993), the SCL-90 (Derogatis et al. 1973), the PAIS (Derogatis and Lopez 1983) and a questionnaire purported to explore coping with the aftermath of the Holocaust. Statistically significant results were found for the intrusion and avoidance subscales of the PTSD scale. No differences were found with regard to the mean scores of the SCL-90 and the PAIS.

The frequency of the survivors' coping groups was: "victims", 17.3 %; "fighters", 39.3 %; and "those who made it", 43.4 %. A one-way manova showed that the mean number of PTSD symptoms increased in that order, 5.1, 7.6 and 10.5, respectively. The SCL-90 results were rather similar – the "victims" had higher scores in 3 subscales, somatization, depression and anxiety. PAIS did not show marked different results. Of highest interest is the group of "those who made it" outperformed the comparison group in some measures, a truly resilient group of survivors.

In the last study reviewed here, Kozohovitch et al. (2004) examined 63 Holocaust survivors before open heart surgery (at admission), 52 at follow-up at 1 week, and 58 at follow-up at 6 months. The interview included a quality of life measure (QoL). Medical data were retrieved from the patients' charts. They found significant improvements in most components of QoL at follow-up. Although no comparison group was studied, the authors concluded that past *severe prolonged traumatization* *does not necessarily reduce the survivors' ability to cope with and regain physical and psychosocial functioning after a severe life-threatening medical condition.*

Discussion: The Research Evidence

The epidemiology of the mental-health impact of the first-generation Holocaust survivors attracted and continues to attract the attention of researchers in many countries (cf, Barel et al. 2010). The reason as far as Israel is obvious: survivors constitute a visible group in this society despite their advanced age and dwindling numbers. Their psychological suffering, mental disability, vulnerabilities and admirable adaptation are an indivisible part of the professional and non-professional ethos in the country.

What has been the main epidemiologic contribution of researchers to the field of the Jewish genocide and its aftermath? The following disaggregated 2 questions address this issue: What types of research have been done, and how were they conducted? What were the research results and how were they interpreted?

As noted earlier, there were 3 main topics addressed in the epidemiological research– the presence of psychiatric clinical syndromes among community residents; the effects measured by symptoms scales; and the Holocaust experience as a risk factor for renewed stressful events, such as those generated by life-threatening events. Many studies were driven by theory, while others derived theoretical notions from their research findings.

Types and Methods of the Research Studies that Have Been Conducted

Despite clinicians' concerns for the survivors on account of both their demand for psychiatric help and the need to answer the reparation claims, only a single study explored the association between Holocaust experiences and clinical syndromes in the community (Sharon et al. 2009). The authors found that anxiety disorders, emotional distress and sleep disturbances were more frequent among survivors living in the community than among their counterparts. Other dimensions of morbidity investigated (not reported above) – mood disorders, pain, selected self-reported cardiovascular problems, obesity and smoking – were not significantly different in the 2 groups. All health dimensions analyzed were controlled for relevant variables. The psychopathological problems that were found did not seem to result from learning about symptoms that may have taken place in the clinical context, survivors who were interviewed used mental health services no differently from their counterparts, and secondary gains were unlikely.

As noted above, most community studies conducted in Israel and abroad used scales to measure psychopathology rather than clinical interviews. Admittedly, those scales have good psychometric properties and are adequate indicators of psychopathology, but they do not generate psychiatric diagnoses. The size of the samples included in the studies varied; some of them were relatively small but a few had a large number of respondents that provided adequate statistical power. Also, the source of the study samples differed. In this regard, a serious limitation was created by the inclusion of survivors from lists of their organizations or when the sample was not random.

Obviously, Holocaust survivors constitute a heterogeneous group, yet in some research this issue has been glossed over. Some studies (e.g., Fennig and Levav 1991), showed that there was a "dose-effect" of the traumatic experiences. Survivors who were in more adverse situations, like extermination camps, had higher distress scores than those in relatively lesser traumatic situations, as in ghettos. Deckel and Hobfoll (2007) addressed another aspect of the heterogeneity of the psychological trauma of the Holocaust: In their study, they accounted for the extent of personal and interpersonal losses to assess the psychological impact of renewed stress resulting from the exposure to terror. A few authors considered the differential impact of the trauma when they explored the effect of individuals' ages during the Holocaust – but no careful empirical comparisons were made. In sum, those varied aspects of the research on the emotional health of survivors remain inadequate.

An important research problem addressed in Israeli epidemiological studies is the vulnerability or protection granted by past experiences to the survivor when facing life-threatening stressors. The overall weight of the evidence seems to indicate (Solomon and Prager 1992; Baider et al. 1992, 1993) that the past leaves both psychological and biological traces. Those dormant traces could be awakened when the trigger has a life-threatening quality. In conclusion, past experiences could express themselves through reactions to present events.

However, it is not only vulnerability that has been found among survivors, but also resilience. Fennig and Levav (1991) explored the protective effect of current social supports on emotional distress among women attending a primary care clinic, and, Hantman and Solomon (2007) investigated typologies of coping styles to ascertain their differential protective effects when the survivor had cancer.

Research Results and Interpretation

Notwithstanding the limitations of Eitinger's pioneer study (1961a), he was able to show that *KZ* syndrome was identifiable among individuals living in Norway (a country that knew no war after the 1939–1945 conflict) and Israel (which has faced armed hostilities and terror before and since the establishment of the state in May 1948). Note here that the largest wave of survivors arrived in Israel in 1948 and 1949 while the War of Independence was raging. Roughly, half of the Israeli fighting force in the second stage of that war comprised of Holocaust survivors.

Analogously, the studies on non-specific psychopathology and especially those exploring post-traumatic symptoms (particularly of the intrusion and avoidance domains), showed higher mean scores among survivors than suitable counterparts after adjustments were made for potential confounders, such as education (usually, survivors had a lower educational level). With the ageing of survivors and the passage of the years since the Holocaust, the results are less clear. It is likely that the survivors, who are elderly by now, were those able to resist the wear and tear of life. In addition, biases arising from the research design could affect the results. Since the institutionalized elderly were not included in the later community studies, it is likely that those interviewed in the community were the healthiest of the group (if institutionalization was more frequent among survivors as they aged).

The bivariate analysis of one community survey on the elderly described at some length above, which was conducted 55 years after the end of WWII (Shemesh et al. 2008), showed that the survivors had higher emotional distress than the comparison group. Also, survivors who had lived in ghettos, hid or were incarcerated in labor or extermination camps had higher mean emotional distress scores than those who were in Nazi-occupied countries in Europe but were not exposed to any of those situations. The findings of this study showed that even among resilient survivors, emotional distress scores were significantly higher than among Europe-born respondents who did not live in Nazi-occupied countries. Second, the number of chronic health conditions affecting the survivors was larger than among respondents from the comparison group, assuming that help-seeking and medical care received were equal between the 2 groups. (This reservation loses strength since the results showed that visits to the primary care physician did not differ between the groups during the preceding 6 months). As noted earlier, the sampling method excluded survivors residing in institutions for the infirm; conceivably, their inclusion would have generated even higher mean emotional distress scores.

The studies showed that sleep problems were more common in survivors than in their counterparts Kuch and Cox (1992). Other authors identified the same finding among survivors (Eitinger 1961a; Danieli 1982). Conceivably, those sleep problems are lingering manifestations of clinical or sub-clinical post-traumatic disorders no longer fully present. Lastly, this study showed the late negative effect of the Holocaust on being engaged in pleasurable activities these were favored generally by Europe-born Israelis. It would appear that while the group of elderly survivors investigated by Shemesh et al. (2008) may have adapted successfully to life in many respects, e.g. they built families, other areas of life rarely investigated in epidemiological studies were also affected.

In conclusion, despite the limitations of which the above studies are not free, their aggregated results are fully convincing, Holocaust survivors interviewed about conditions unrelated to compensation claims presented more psychopathology than relevant comparison groups. In addition to findings on psychopathology, survivors seem to constitute an at-risk population group when they face life-threatening events.

The Epidemiology of Psychopathological After-Effects of the Holocaust Among Second-Generation Survivors

With time, clinicians begun to report that second-generation survivors presented psychopathology linked to their parents' experiences during the genocide (Eitinger 1961a). This was not surprising, because the Holocaust-related stressful events (bereavement and severe traumatic experiences), and post-WWII experiences (hastily contracted marriages after liberation, pogroms upon return to the original places of residence, clandestine immigration and further exposure to war in Israel) were thought to have impaired the survivors' parental abilities (Levav 1998). Accordingly, authors raised hypotheses that child-rearing processes such as separation-individuation (Freyberg 1980) and attachment (Sagi-Schwartz et al. 2003), might have been disrupted.

Today, the picture that emerges from a vast literature on the mental health of children of Holocaust survivors is more complex. The community-based epidemiological inquiries summarized below, which are not based on help-seeking, cast a shadow of doubt on the above findings. Indeed, reviewers (Kellerman 2001) have noted that clinical and community studies fail to concur. Whereas *...clinical studies tend to present a specific psychological profile that includes a predisposition to PTSD, various difficulties in separation-individuation and a contradictory mix of resilience and vulnerability when coping with stress...*, community surveys *do not show that the offspring of the survivors differ from well-selected comparison populations*. Admittedly, the clinical studies were not uniform with regard to their findings. As noted by reviewers, several of those studies failed to support the notion of transgenerational transmission of psychopathology (Solkoff 1992). Yet, for many practitioners, the existence or lack thereof of the "second-generation syndrome" has not reached closure, especially since a set of well-designed studies has identified vulnerability factors in the offspring. Those studies measured their reaction to stressors such as being diagnosed with breast cancer (Baider et al. 2000) and exposure to war actions (Solomon et al. 1988; Solomon 1995).

As in the previous section of this chapter, the studies covered here address 2 central themes – psychiatric symptoms and disorders ascertained during community-based psychiatric epidemiology studies, as well as vulnerability to psychopathology when survivors' children face highly stressful life events.

Psychiatric Symptoms and Disorders

Schwartz et al. (1994) used data collected in a 1980 epidemiological study to examine a possible transmission of psychiatric disorders to survivors' children. Their examination was guided by a theoretical framework that enabled the formulation of alternative research predictions. Initially, they discarded the possible genetic transmission of disorders. The authors considered it unlikely that Jews with psychiatric disorders had greater chances of surviving traumatic events during and after the war and, subsequently, to raise a family. The most likely explanation was non-genetic transmission. This would result from social learning and modeling expressed in an excess of disorders in survivors – such as anxiety, depression or PTSD – or be due to a generic deficit or vulnerability expressed by no particular disorder that contributed to the excess of psychiatric morbidity among the offspring. At the time no epigenetic involvement was considered.

The study they conducted yielded psychiatric diagnoses. Respondents, both offspring of survivors and the comparison group, were included in a large cohort of native Israelis born between 1949 and 1958 whose parents had immigrated from Europe or North Africa. Respondents were asked about parents' Holocaust experience. In the first part of a two-stage study design, all respondents were screened with the PERI-Psychiatric Epidemiology Research Interview (Shrout et al. 1986), together with questions designed to elicit psychiatric disorders (such as prior psychiatric treatment). All respondents who were found to be "positive" in the first stage and 18.0 % of those found "negative" were interviewed by psychiatrists using a modified lifetime version of the Schedule of Affective Disorders and Schizophrenia (Levav et al. 1993). Both stages had high response rates, 94.0 % and 91.0 %, respectively.

The authors took as "cases" those respondents whose fathers and mothers were in labor or concentration camps (high dose exposure) and immigrated to Israel after 1944. Respondents with parents of European origin who had immigrated before 1944 and were not in ghettos, hiding or camps were included in the "comparison group." The selection criteria maximized the contrast between both groups (respondents who had one parent in the Holocaust or were only in a ghetto or in hiding were excluded).

In the first stage, 957 individuals met the criteria for the comparison group and 271 for the category of survivor's offspring. At the diagnostic stage, the respective numbers were 476 and 147.

The dependent variables were derived from information collected during the 2 stages of the studies. At the first stage, the following symptoms scales were derived: demoralization or emotional distress; enervation; false beliefs and perceptions; suicidal ideation; anti-social behaviors; problems with drinking; and schizoid traits. Two additional scales were included – the Impact of Events Scale (Horwitz et al. 1979) and a purposely designed 23-item scale of symptoms of PTSD. In the second stage, diagnoses based on the RDC-Research Diagnostic Criteria were made, including the identification of the symptom of guilt wherever it was present, such as in major depression disorder. Statistical power in this study was generally adequate. Confounders (e.g., education, marital status), were controlled based on findings in the literature on survivors and their children.

The analysis for the last year prevalence revealed no differences in those symptoms and disorders, including guilt, which were predicted to be present if the non-genetic transmission was of a direct type or on symptoms or disorders of any type investigated in this study. Positive results for the offspring were found for lifetime prevalence disorders of the "specific transmission" (major and minor depression and anxiety disorders) but not for the "indirect transmission."

The INHS Survey

The Israel National Health Study (INHS) survey (Levinson et al. 2007) included offspring of both, Holocaust survivors and of Europe-born parents who had not resided in Nazi-occupied countries (Levav et al. 2007). The outcome variables included psychopathological domains such as emotional distress and mood and anxiety disorders, in addition to a number of variables (e.g., use of services, self-appraisal of health, self-reported physical health conditions and suicidal behavior). The population sample of the total study, where this sub-study was nested, was extracted from the National Population Register (NPR) and was comprised of non-institutionalized *de jure* residents aged 21 and over.

The index group included Israel-born or Europe-born respondents (except from the former Soviet republics) aged 30 and over whose parent or parents had lived in a Nazi-occupied country during World War II: (only mother, $n = 63$; only father, $n = 91$; both parents, $n = 276$; total $N = 430$). This group was identified by answering these questions: *Did your father/mother live in a country that was under the Nazi regime or in a country that was under the direct influence of the Nazi regime?* Those who answered positively were asked: *During the Holocaust, was your father/ mother in a ghetto?, hiding? a labor camp? a death camp? or was forced to leave the place of residence because of the Nazi regime?* The comparison group included offspring of Europe-born parents who did not reside in Nazi-occupied countries ($N = 417$).

The Interview Schedule

The survey schedule included sociodemographic information; the 12-item General Health Questionnaire (GHQ-12) (Goldberg et al. 1977); the World Mental Health Survey Composite International Diagnostic Interview (WMHS-CIDI) (Levinson et al. 2007); general and mental health service utilization; general health (mental and physical); self -appraisal; self-reported physical health conditions; smoking; and suicidal behaviors. The GHQ-12, that measures emotional distress, had satisfactory internal reliability-consistency, Cronbach's *alpha*, 0.88 for the combined groups. The WMHS-CIDI is a fully structured diagnostic instrument, which assesses lifetime and 12-month prevalence of several mental disorders according to both the *ICD-10* and the *DSM*-IV psychiatric classification systems.

The following disorders were included– anxiety disorders (panic disorder, generalized anxiety disorder, agoraphobia without panic disorder, and PTSD) and mood disorders (major depressive disorder, dysthymia, bipolar I and II disorders).

Twelve-month and/or lifetime prevalence rates of *DSM*-IV disorders were determined whenever respondents' current or past symptoms met diagnostic criteria. For each disorder, a screening section was administered to each respondent. All participants who answered positively to a specific screening question were referred to the respective diagnostic section of the questionnaire. Whenever appropriate, organic exclusion criteria were taken into account in the assessment of the *DSM*-IV diagnoses. Respondents were asked whether they had consulted with any one of a list of health and community agents for problems related to their mental health during the preceding 12 months. The professionals included those in specialized mental health services (psychologists, psychiatrists or social workers), general medical professionals (family physicians), religious counselors and complementary medicine healers.

Respondents who did not use those services during the same period were asked whether they thought they needed mental health treatment. Respondents were asked to appraise their health using a 1–5 scale, from excellent to poor. Self-report of a number of health conditions with obvious psychological load was examined – sleep problems; hypertension and cardiovascular and cerebral-vascular disorders; asthma; diabetes; and body mass index (as an indicator of obesity). Smoking at the time of the study was measured at any level of the habit. Lastly, lifetime suicidal behavior (ideation, planning and attempt) was inquired.

One-way analysis of variance was used to assess differences in the means and standard errors of emotional distress among the offspring of Holocaust survivors and control group measured by the GHQ, adjusting for the confounding effect of education. A variable, CMD, was created to include any anxiety or mood disorder (common mental disorders, CMD) that was present during the last year and lifetime. Sleep problems included difficulties to fall and stay asleep and early-morning awakening. Cardiovascular and cerebrovascular variables were combined. Suicidal behaviors, thinking, planning and attempts were collapsed into one measure. All other measures were analyzed separately. Chi-square statistics were applied to test significance of differences in the distributions between offspring of Holocaust survivors and the comparison group. Statistical significance was established at .05. Odds ratios (ORs) and 95.0 % confidence intervals (CIs) for the measures of psychopathology and other health dimensions adjusted for confounders were calculated using logistic regression analysis. Confidence intervals that excluded the unity were regarded as significant. Strata and cluster weights were assigned to each subject according to the sampling design.

Results

Table 15.5 shows the socio-demographic features of offspring of both groups. No statistically significant differences were noted except for educational attainment ($p = 0.0007$), the offspring of Holocaust survivors achieved more years of schooling than the comparison group. There were neither group differences with regard to

Table 15.5 Offspring of Holocaust survivors and comparison group by sociodemographic features (raw numbers and weighted proportions) (Taken from Levav et al. 2007)

	Holocaust group	Comparison group	
	$n = 430$	$n = 417$	
Variables	n (%)	n (%)	Statistical significance
Gender			
Male	214 (48.1)	195 (45.9)	$\chi^2 = 0.46$ $df = 1$ $p = 0.50$
Female	216 (51.9)	222 (54.1)	
Age groups			
30–49	189 (45.8)	174 (45.2)	$\chi^2 = 0.03$ $df = 1$ $p = 0.86$
50+	241 (54.2)	243 (54.8)	
Marital status			
Married	346 (82.4)	317 (78.3)	$\chi^2 = 2.36$ $df = 1$ $p = 0.12$
Not married	84 (17.6)	100 (21.7)	
Education, yrs.			
0–12	122 (28.0)	173 (40.8)	$\chi^2 = 14.47$ $df = 2$ $p = 0.0007$
13–15	118 (27.6)	98 (23.9)	
16+	189 (44.4)	248 (35.3)	
Missing	*1*		
Place of origin			
Israel-born	275 (65.7)	248 (59.9)	$\chi^2 = 3.12$ $df = 1$ $p = 0.08$
Europe-born	155 (34.3)	169 (40.1)	
Lived with both biological parents before age 16			
Yes	380 (88.3)	377 (91.1)	$\chi^2 = 1.85$ $df = 1$ $p = 0.17$
No	50 (11.7)	40 (8.9)	
Outside the home for more than 6 months before age 18			
Yes	45 (10.6)	40 (8.9)	$\chi^2 = 0.67$ $df = 2$ $p = 0.41$
No	384 (89.4)	377 (91.1)	
Missing	*1*		

separation from the biological parents before age 16 nor for placement outside the home before 18.

Table 15.6 shows that neither of the groups differed statistically on emotional distress and the common mental disorders (anxiety and mood disorders), for both lifetime and 12-month prevalence rates. Both groups did not differ in the age of onset of those disorders up to age 18, when almost all Jewish males and a sizeable proportion of Jewish females leave home for military service. Also, no differences

Table 15.6 Offspring of Holocaust survivors and comparison group by selected psychopathological measures (Taken from Levav et al. 2007)

Measures	Holocaust group n = 430	Comparison group n = 417	Holocaust vs. comparison group	Holocaust vs. comparison group, education adjusted
GHQ, Mean (SE)	17.4 (0.3)	17.5 (0.3)	F = 0.08 df = 1 p = 0.78	F = 0.03 df = 1 p = 0.86
	% (n)	% (n)	OR (95.0 % CI)	OR (95.0 % CI)
CMD[a], 12 months	6.7 (29)	4.2 (17)	1.6 (0.9–3.0)	1.7 (0.9–3.1)
CMD, onset (before age 18)	3.8 (19)	2.9 (13)	1.2 (0.9–1.7)	1.2 (0.8–1.6)
CMD, lifetime	12.6 (56)	11.2 (48)	1.2 (0.8–1.8)	1.1 (0.7–1.7)
Self-appraisal of mental and physical health	67.2 (281)	59.2 (232)	1.4 (1.1–1.9)	1.3 (1.0–1.7)
Suicidal behavior (ideation, planning or attempt) lifetime	3.6 (16)	2.4 (10)	1.5 (0.7–3.5)	1.7 (0.8–4.0)
Smoking	18.8 (81)	18.3 (76)	1.0 (0.7–1.5)	1.1 (0.8–1.6)
Sleep problems	26.2 (116)	24.9 (105)	1.1 (0.8–1.5)	1.1 (0.8–1.6)
Mental health treatment, last 12 months	13.6 (60)	12.1 (53)	1.1 (0.8–1.7)	1.2 (0.8–1.8)
All other respondents thought of seeking mental health treatment, last 12 months[b]	4.7 (18)	5.1 (18)	0.9 (0.5–1.8)	0.8 (0.4–1.8)
Any health service treatment, lifetime	26.7 (120)	21.4 (91)	1.3 (1.0–1.9)	1.3 (0.9–1.7)

[a] CMD: any anxiety or mood disorder

[b] N refers to respondents that did not receive mental health treatment. Offspring of Holocaust survivors, n = 380; Comparison, n = 386

were noted regarding suicidal behaviors, sleep problems or smoking. General health was self-assessed as excellent or very good by 67.2 % of the children of Holocaust survivors and 59.2 % by the comparison group. When this variable was adjusted for education, the difference did not reach statistical significance (OR = 1.3, 95.0 % CI = .0–1.7). No difference was found in the percentage of individuals who consulted health services for a mental condition either during the preceding year or at other times in the past.

A similar lack of statistically significant difference was found in the physical health variables examined (Table 15.7), including visits to the general health services in the preceding 2 weeks. The above analysis was repeated for the sub-group of offspring of Holocaust survivors where both of the parents were in extermination camps (N = 32) and where both parents went through the Holocaust, (N = 276); there were no statistically significant differences with the comparison group.

Table 15.7 Offspring of Holocaust survivors and comparison group by selected self-reported physical health measures. In % (Levav et al. 2007)

Physical health measures	Holocaust group n = 430 (1)	Comparison group n = 417 (2)	(1) vs. (2) unadjusted	(1) vs. (2) education adjusted
Body mass index (BMI) Mean (SE)	26.1 (0.2)	25.8 (0.2)	F = 0.79 df = 1 p = 0.37	F = 1.97 df = 1 p = 0.16
	% (n)	% (n)	OR (95.0 % CI)	OR (95.0 % CI)
BMI 30+	18.5 (76)	16.7 (65)	1.1 (0.8–1.7)	1.2 (0.8–1.8)
Physical problems for 6 months and over	34.5 (149)	33.5 (145)	1.0 (0.8–1.4)	1.1 (0.8–1.4)
Chronic pain, different locations	39.4 (173)	34.0 (143)	1.2 (0.9–1.7)	1.3 (1.0–1.7)
Myocardial infarction, CVA or hypertension	25.6 (111)	28.6 (128)	0.9 (0.6–1.2)	0.9 (0.7–1.2)
Asthma	6.4 (28)	6.4 (28)	1.0 (0.6–1.8)	1.0 (0.6–1.8)
Diabetes	6.8 (31)	9.3 (43)	0.7 (0.4–1.2)	0.8 (0.5–1.2)
Use of health services, last 2 weeks	42.4 (179)	41.4 (179)	1.0 (0.8–1.4)	1.0 (0.8–1.4)

Vulnerability with Regard to Life-Threatening Events

The Threat of War-Related Events

Solomon et al. (1988) conducted a lab-like test on the vulnerability of soldiers diagnosed as suffering from combat stress reaction during the First Lebanon War fought by Israel in 1982. Their test answered several questions. They selected 44 soldiers whose mother or father or both parents survived the Holocaust and compared them with 52 soldiers equally affected whose parents were Europe-born but did not go through the Holocaust. The 2 groups were asked to fill questionnaires by themselves, thus avoiding the lack of "blindness" on the part of interviewers. The questionnaire contained 13 items tapping the presence of *DSM*-III PTSD, including scales measuring the re-experiencing of the traumatic events, numbness and the presence of symptoms that did not exist before the war.

Both groups did not differ in sociodemographic variables or military features measured upon recruitment into the Army. The soldiers completed the questionnaire after 1, 2 and 3 years following the end of the war. PTSD rates of among the children of Holocaust survivors were 70.0 %, 73.0 % and 64.0 % during years 1, 2 and 3 respectively. For the same years, the rates among the non-Holocaust group were 60.0 %, 52.0 %, and 39.0 %, respectively. Careful multivariate analysis showed that at years 2 and 3, the group with survivor parents had a statistically higher PTSD score than the comparison group, while the slope of the decrease of the symptoms, although not statistically different, was steeper in the non-Holocaust group.

Contrary to those results, another study conducted by Solomon on the effect of parental Holocaust experience on captive soldiers of the 1973 Yom Kippur War yielded no increased risk in the subjects' mental health measures (Solomon 1995). Of the 240 prisoners of war (POW), 164 participated in the study. This group was matched with a group of 184 veterans who were not POW. Both groups were administered a battery of different scales including the Impact of Event Scale (Horwitz et al. 1979) and the Global Severity Index of the SCL-90 (Derogatis et al. 1973), which is a measure of emotional distress. The study was conducted 18 years after the war. While the mental health measures showed that the mental health of the former POWs was statistically more affected, previous parental experience with the Holocaust showed no effect.

The Threat of a Malignant Disease

Baider et al. (2000) studied the vulnerability to psychopathological and psychological dimensions among female offspring of Holocaust survivors who had breast cancer. Having identified a higher reactivity to the diagnosis of cancer among survivors (Baider et al. 1992), they assumed *...that the offspring of Holocaust survivors might be as vulnerable as their parents are. Similar to their parents, many second-generation children function adequately in their daily activities but are unable to cope with the emotions of extreme stress or severe life-threatening situations* (Baider et al. 2000). Accordingly, they expected that the offspring of survivors would react more adversely than other breast cancer patients whose parents have not been in the Holocaust. In this study, the definition of the sample was clearest – the index group included offspring whose parents, one or both, had been in forced labor, concentration or extermination camps (n = 106) while the comparison group included patients with cancer whose parents, all Europe-born, had not been in the Holocaust (n = 102). All respondents completed a self-report questionnaire that included the BSI (Derogatis and Spencer 1982), the IES (Horwitz et al. 1979), and the MAC (Greer et al. 1989). The comparison group members were treated in higher proportion with chemotherapy and their tumors were in stages 3 and 4. While the differences in the MAC, which measures coping, were absent, the offspring of the survivors had statistically significant higher scores of the IES and BSI (scales that measure symptoms).

Another publication of the same research team (Baider et al. 2006) explored whether the level of distress among offspring of survivors affected by breast cancer was higher than "non-traumatized" parents and whether there was a synergistic action between the 2 variables – having a cancer diagnosis and being the daughter of a Holocaust survivor. As above, they studied patients with cancer whose parents were or were not traumatized in addition to 2 comparison groups of healthy individuals whose parents were and were not traumatized. Recruitment procedures, criteria for inclusion, measures and strategy of analysis were similar as above. In this component of their research, the authors showed that the 2 factors –cancer diagnosis and being an offspring of survivor – had a synergistic effect on 2 emotional distress subscales of the BSI, depression and psychoticism.

Discussion

Given the parents' ordeal during and immediately after WWII, authors (Levav et al. 2007) had expected their offspring would be affected in terms of both their psychopathology as well as other related domains (Levav et al. 1998). Yet, all the domains investigated (such as selected psychopathological and physical outcomes, like asthma and hypertension, which bear emotional load and the use of mental or general health services) showed no differences between the group of Holocaust survivors' offspring and the comparison group. The agreement in the results of both community studies is persuasive, since they used different diagnostic instruments and research strategies to produce them. Although both studies lack reliable information on the possible psychopathology of the respondents during their youth, when they were living in closer contact with the parents and at a time closer to the traumatic events of WWII, the second community study did explore the differences between the 2 groups with regard to the (early) age of onset of the anxiety or mood disorders. There was no indication of any difference between the 2 groups of respondents.

Those 2 epidemiological inquiries are not alone in their negative findings. Recently, in an ingenious laboratory-based study by Sagi-Schwartz et al. (2003) found that attachment – a key psychological mechanism linking mothers with their offspring – was not more disrupted among a group of children of Holocaust survivors than in a suitable control group. In contrast to epidemiological community-based inquiries that gather data from all community members whether healthy or sick, clinical studies based their observations on psychopathology actually diagnosed. Conceivably, offspring of Holocaust survivors who seek help from mental health services attribute the origin or the "coloring" of their problems to the family environment and parental behavior resulting from traumatic WWII experiences.

The more recent study reported above would not seem to support a greater need of care among the offspring of the survivors. Results showed no evidence that the offspring of Holocaust survivors consulted in the past or planned to consult more frequently for mental health problems during the preceding year of the survey compared with their counterparts.

The disparity between the findings of the above studies with those obtained by all but one of those exploring the vulnerability of the offspring of Holocaust survivor facing major fateful stressors is difficult to reconcile – except for the fact that the criteria of inclusion implied selecting only individuals who had faced or were facing major fateful stressful events. Those individuals were carriers of a risk requiring triggers that are less ubiquitous in ordinary life for it to reach clinical expression.

These studies on the second generation could demand a modification in the research agenda. Rather than to limiting the studies to mental illness, the task that lies ahead is to add the exploration of factors that explain resilience. How is it that parents who underwent one of the cruelest human-made disasters in history and whose emotional scars could be elicited in community surveys long after their ordeal ended were able to avoid transmitting to their offspring various expressions of trauma? It has been noted repeatedly that these survivors muted their personal dramas while striving to secure for their children a safer and better life (Bar-On et al. 1998). The mutual (over) protection inferred from the narratives of offspring in a study conducted in Israel (Wiseman et al. 2006) – construed by some observers as possibly pathogenic and a "conspiracy of silence" (Danieli 1982) and often decried – might have ultimately brought about the disorder-free outcomes that resulted. Importantly, the authors of the more recent community study gathered some evidence of Holocaust survivors' ability to function as parents, while survivors were found to have a relatively low level of education than controls, the offspring of survivors achieved more years of education than the comparison group.

The Rwandan Genocide

In 1994, massive violence took place in Rwanda. Given the obvious difficulties to accurately estimate the human toll, the figures vary by different reports. Yet all of them are very high, they range from 700,000 to a million lives lost. Of those who survived, about 4 million people fled their homes. Rwandans endured one of the worst genocides of the twentieth century. Tutsi were slaughtered, raped, terrorized and maimed by the Hutu majority. Deaths occurred by several cruel methods, such as decapitation, clubbing, starvation, drowning. Their properties were destroyed. The survivors, both those who remained in Rwanda and those who sought refuge in neighboring countries, carried in their memories those horrible scenes they lived through. After the war and subsequent displacement to the camps, large numbers of people died of illness; for instance, 50,000 Rwandans died of cholera and exhaustion in a 2-week period while many suffered starvation. Years later, community-based studies were conducted for purposes of documenting the extent and characteristics of the genocide for the use in the national and international trials that took place, and for advocacy for action by the international agencies, such as Unicef.

As noted early in this chapter, the mental-health related studies of the Rwanda genocide are a few, but adequate in numbers and quality to demonstrate again that once the traumatic experiences come to an end the marks are left visible for many years thereafter. One of the community studies refers to the young aged 8–19 years. In 1995, a group of researchers (Neugebauer et al. 2009) conducted The National Trauma Survey (NTS). In this study, they measured traumatic exposures using an inventory of possible war time experiences and post-traumatic stress reactions. The latter was explored using a checklist that identified symptoms compatible with "probable PTSD'. The NTS researchers interviewed youth residing in the community and others in institutions, but their report refers to those in the community (N = 1,547). Because changes were made while the field operation had started, the authors distinguished 2 samples, A and B. The exposure to the traumatic events included over 90.0 % who witnessed killings and had their lives threatened; 35.0 %, who lost immediate family members; 30.0 %, who witnessed rape or sexual mutilation; and 15.0 % hid under corpses to save their lives. In samples A and B the percent of the young affected was, respectively, for one or more re-experiencing symptoms, 95.0 % and 96.0 %; for 3 or more avoidance/blunting symptoms, 95.0 %, in both samples; and 2 or more arousal symptoms, 63.0 % and 56.0 %. For sample A and B, the overall rate of 'probable PTSD' was 62.0 % and 54.0 %, respectively. The evidence of the trauma was clearly elicited.

Eight years after the genocide, in 2002, another group of researchers explored the mental health status of adult respondents (N = 2,091) residing in 4 communes (Pham et al. 2004). The objective was to ascertain the victims' psychological damage. They used a questionnaire purported to assess symptoms of PTSD, using the PTSD Checklist–Civilian Version (PCL-C), a self-reported 17-item instrument tapping *DSM*-IV based PTSD symptoms. The findings showed a devastating effect, almost a quarter of the respondents, n = 518 (24.8 %), met symptom criteria for PTSD.

More than half of the sample (56.8 %) had 1 or more of the 5 re-experiencing symptoms while 43.2 %, had three or more of the avoidance/numbing symptoms; PTSD was statistically significant associated with cumulative traumatic exposure, proximity to conflict (to be in Rwanda in 1994 and to reside in a commune with high degree of violence), and with socio-demographic characteristics (age and gender). The lingering effects of the trauma were confirmed by the authors of this study.

Interestingly, the authors added a novel dimension. They checked the attitudes of the selected respondents to the trial procedures, both international and national, in relation to the experienced PTSD. To quote them freely: *Respondents who met PTSD symptom criteria were less likely to have positive attitudes toward the Rwandan national trials (OR, 0.8; 95.0 % CI, 0.6–0.98), to hold a positive belief of communities (OR, 0.8; 95.0 % CI, 0.60–0.97), and to engage in a positive interdependence with other ethnic groups (OR, 0.71; 95.0 % CI, 0.56–0.90). Respondents with exposure to multiple trauma events were more likely to hold positive attitudes toward the international bodies (OR, 1.1; 95.0 % CI, 1.04–1.17) and less likely to support the Rwandan national trials (OR, 0.9; 95.0 % CI, 0.84–0.96)* (Pham et al. 2004).

A third team of investigators conducted a study in a refugee camp in Tanzania that housed both Rwandan and Burundi subjects (de Jong et al. 2000). They used the 28-item version of the General Health Questionnaire (GHQ-28), a widely used measure of emotional distress to examine 2 samples of relatively young respondents: a random sample of refugees (n = 854) and a small sample of clients that sought help from a psychosocial support program in those camps (n = 23). The authors found a prevalence rate of serious mental health problems of 50.0 %, SE = 12.0 %, using a cut-off score of 14. The extraordinary harsh conditions precluded a more sophisticated inquiry, but the results are indicative of the open psychological wounds of this population.

A forth group of authors (Hagengimana et al. 2003) studied the rates of panic attacks, panic disorder, symptoms of post-traumatic stress disorder (PTSD), and depression levels in a population of Rwandans widows (N = 100) who had lost a husband during the genocide but who were not currently receiving mental health services. They were randomly invited to participate. The survey was conducted in 2001, 7 years after the genocide. The average age was 29 (range 18–50); and the average number of children was 2.2 (range 0–5). The average educational level was fifth grade and 65.0 % were literate. The authors used a large battery of instruments: the Rwandan Panic-Disorder Survey (RPDS); the Beck Depression Inventory (BDI); the Harvard Trauma Questionnaire (HTQ); and the PTSD Checklist (PCL). Forty of the widows suffered panic attacks during the previous month. Thirty-five of them suffered from panic disorders. Rwandan widows with panic attacks had greater psychopathology on all measures.

Conclusion

Similarly to the research findings on the genocide of Jews in Europe, the above studies showed that the psychopathological marks on survivors of the Rwanda genocide in Africa were visible even years after the killing ended. The marks were identified in subjects of all ages and in both genders.

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Chapter 16
The New H^5 Model of Refugee Trauma and Recovery

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Introduction

Refugees and internally displaced persons remain high on the international priority agenda, as a result of war, inter-ethnic conflict, and other forms of violent conflicts. According to the World Bank, approximately 1.5 billion people live in countries affected by violent conflicts, with an estimated 40.0 % of post-conflict societies returning to conflict within 10 years (World Bank 2012). The numbers of traumatized persons and communities throughout the world is staggering. The humanitarian care of those affected by human violence and aggression is a major issue that must be addressed.

This chapter will specifically focus on the millions of refugees worldwide primarily living in refugee camps across the globe. Our focus will be on the impact

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of their experience on their health and mental health and their communities. We will then offer a new model of refugee care called: *The* H^5 *Model of Refugee Trauma and Recovery* that will explore the 5 overlapping dimensions essential to trauma recovery. A part of this effort will be to describe the cultural and scientific breakthroughs over the past three decades that now allow the international community the capacity to identify and treat the traumatic life events of refugees and the mental health impact of these events. Finally, based upon this new model of refugee care, recommendations will be made for implementing culture and evidence-based policies and actions for traumatized refugee populations worldwide. Our new approach aims at refugees living in camps and who have not been repatriated. Hopefully, this model can serve civilian populations that have experienced ethnic conflict, war and other forms of extreme violence.

Magnitude of the Problem: The Physical and Mental Health Impact of the Refugee Experience

The 1951 United Nations Refugee Convention, that established the United Nations High Commission for Refugees (UNHCR), spells out that a refugee is a person who *owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality, and is unable to, or owing to such fear, is unwilling to avail himself of the protection of that country.* In 2013, there were approximately 15 million refugees worldwide. In 2011, an estimated 4.3 million people were newly displaced due to conflict or persecution according to UNHCR (e.g. armed conflict in Syria). While refugees cross international borders into industrialized countries, approximately 80.0 % of refugees are hosted by developing countries. Trends in the numbers (Global Trends 2011) of refugees are shown in Figs. 16.1 and 16.2.

Internally displaced persons (IDPs) are *persons or groups of persons who have been forced or obliged to flee or leave their homes or places of habitual residence, in particular as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized state border.* Currently, there are 27 million IDPs—that is, individuals who are displaced within the borders of their country of origin, thereby not meeting the definition of refugee (Global 2011).

In 2013, women and children accounted for approximately one-half of all displaced (refugees and IDPs). UNHCR in *Global Trends 2011* underscores the protracted nature of displacement—someone who becomes a refugee is likely to remain as such for many years—often in a camp or living precariously in an urban location. Indeed, in 2011 an estimated 7 million refugees were estimated to be living in protracted refugee situations (a term used by UNHCR to describe a situation where *more than 25,000 refugees have been living for more than five years*). These figures mask the real magnitude of displacement throughout the world, as they do not include a number of refugee populations, including, for example, the Palestinian refugees

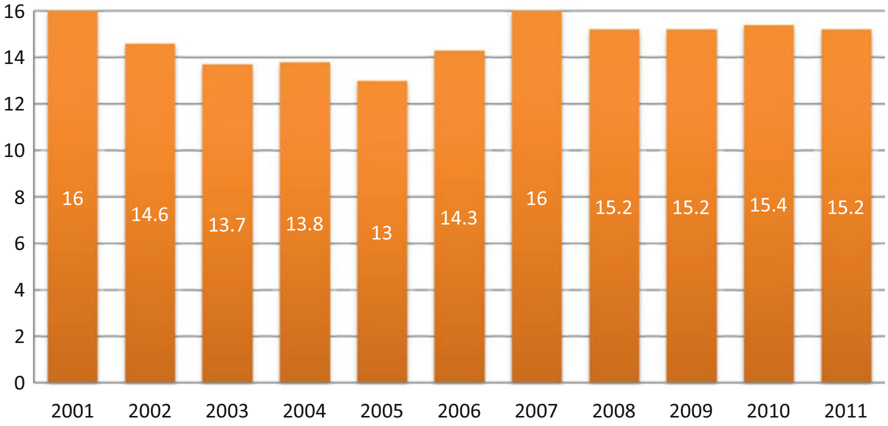
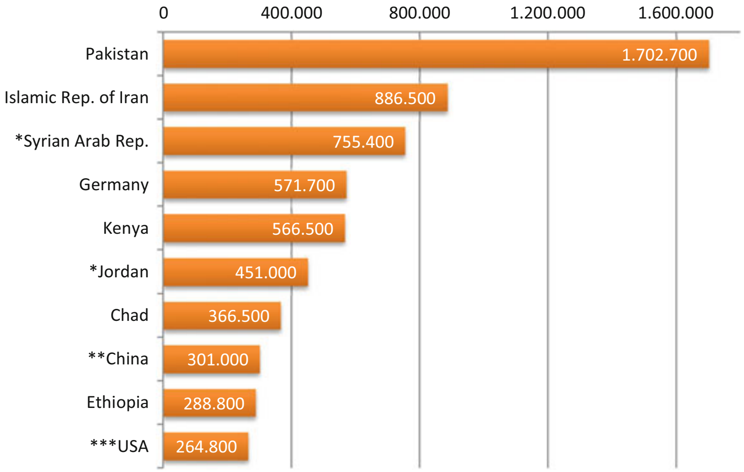


Fig. 16.1 Global refugees 2001–2011 (end-year) (in millions)



* Government estimate. UNHCR has registered and is assisting 132,500 Iraqi refugees in both countries.
** The 300,000 Vietnamese refugees are well integrated and in practice receive protection from the Government of China.
*** UNHCR estimate.

Fig. 16.2 Major refugee-hosting countries 2011

living scattered throughout the Middle East. Many of these displaced populations are fleeing conflict, but are not accounted for in the above figures.

Displaced populations such as refugees, like all conflict-affected persons, suffer the devastating physical and mental health consequences of their plight in the short term and long term. Porter and Haslam (2005) and Steele et al. (2009) through their meta-analyses summarizing the resettlement refugee literature worldwide demonstrated the high prevalence of post-traumatic stress disorder (PTSD) and depression amongst refugees communities worldwide. Mollica et al. conducted the first longitudinal study to reveal that the repatriation of Bosnian refugees from Croatian refugee camps were associated with chronic and persistent psychiatric morbidity over time (Mollica et al. 1999). One study of Palestinian refugee children and adolescents living in shelled houses, and sometimes tents, following military conflict found that 54.0 % of the children suffered from severe, 33.5 %, from moderate and 11.0 %, from mild and sub-clinical levels of PTSD (Murthy and Lakshminarayan 2006). A review of a large number of studies on the mental health of adolescents (N = 4,868) surviving conflict, found across settings that adolescents reported high levels of exposure to traumatic events and high to severe levels of acute stress reactions after war. Adolescents can have delayed reactions to traumatic events, developing depression and panic disorder after the conflict ends (Fisher et al. 2011).

The current review of the refugee camp literature as being distinct from resettled refugee populations is shown in Table 16.1 (Rahe et al. 1978; Mollica and Jalbert 1989; Mollica et al. 1993; Hourani et al. 1986; Punamaki 1990; de Paardekooper et al. 1999; Ahmad et al. 2000; De Jong et al. 2002; Tang and Fox 2001; Van Ommeren et al. 2002; Lopes Cardozo et al. 2004; Kamau et al. 2004; Kim et al. 2007; Onyut et al. 2009; Akinyemi et al. 2012).

In the early 1980s, our research began with the study of the Site 2 Cambodian population living in confinement in the Thai-Cambodian border under UN control (Mollica and Jalbert 1989). Prior to this study, acknowledgment of the mental health problems of refugees by the international community caring for refugees was non-existent, and mental health care was almost completely absent. It was generally assumed at that time by international agencies, such as UNHCR, that refugees were *like stretched rubber bands that would spring back to normal once they were successfully repatriated.* In addition, while the physical concrete problems were readily identifiable, the mental health problems of refugees were considered by policy planners and medical professionals to be:

1. Ambiguous, vague and difficult to measure
2. Impossible to determine in culturally diverse and non-Western populations
3. Have little if any impact on health and social functioning; and
4. Lacking effective treatments.

The existing UN emphasis on safety, protection and the material needs of refugees viewed mental health care as a “luxury” that could not be afforded (Ekblad and Silove 1998; Mollica 2000).

As Table 16.1 reveals, the “rubber-band” model is grossly inaccurate. It denies refugees access to policies and programs that can greatly aid their overall health, wellbeing, social life and economic productivity. These studies have taken place in refugee camps in Thailand, Lebanon, Palestine, Sudan, Kurdistan, Tanzania, Gambia, Nepal, Kenya, Uganda and Nigeria. While the mental health sequelae of refugee trauma can vary, research reveals that 30.0–60.0 % of refugees in camps suffer from PTSD and depression. These rates are dramatically higher than those found in mainstream non-massively traumatized populations (Mollica et al. 2004). While the high rates of PTSD in refugee communities have now come to be accepted, some

Table 16.1 Published studies based on refugee camps with regard to traumatic experiences, mental health outcomes and social functioning

Source	Population/phase (camps)	Study design/Aim	Primary measures analyses	Translation/adaptation	Outcomes
Rahe et al. (1978)	Random sample	Valid estimation of the mental health of the refugees at large.	Standardized questionnaires:	All questionnaires were translated into Vietnamese. Vietnamese graduate students in the San Diego area, USA, were recruited as interviewers.	Recent life changes data: for the most subgroups (different ages and gender) the mean numbers of war-related life changes experienced over the 6-month period immediately before leaving Viet Nam were very similar – between 2 and 4 changes. Men between 20 and 39 had experienced the greatest number of recent life changes.
				Vietnamese translations of informed consent	CMI data: Women aged 20–29 and 30–39 showed in camp psychological symptom levels greater than the upper limit
	Camp Pendleton. Randomly selected family groups. A	All interviews were carried out at the refugee	The Recent Life Changes Questionnaire (RLCQ)		SAS data: moderately high. However, highly stressed men reported

(continued)

Table 16.1 (continued)

Source	Population/phase (camps)	Study design/Aim	Primary measures analyses	Translation/adaptation	Outcomes
	randomization of refugees' identification numbers was performed and 2–4 names were selected from each week's new arrivals. All family members were invited. Toward the end of the study a second selection method: randomly selected tent numbers from each of the 8 large tent areas in the camp.	camp at the crisis clinic.			relatively low illness symptoms on the CMI, but reported the most pessimistic SAS scores.
	May 1975		Cornell Medical Index Health Questionnaire (CMI)		
	N = 200		The Self-Anchoring Scale (SAS)		
Mollica and Jalbert (1989) and Mollica et al. (1993)	The largest Cambodian refugee camps Site 2	Key informants interviews and an epidemiological survey of a systematic sample of refugees aged 18 or older, living in an area-probability sample of camp households	Standardized interview schedules to collect data on personal characteristics, trauma experiences, work and social activities, and symptoms of	Translated and adapted specifically for this study. Standard translation methods of cross-cultural research were used to construct the final Cambodian	More than 80.0 % felt depressed and had a number of somatic complaints despite good access to medical services.

			depression, PTSD and functional health status	version of the interview schedule	
			Logistic regression	HTQ, trauma for each time period	
			Univariate and multivariate analyses	HSCL-25 Psychosocial risk factors	
	No = 993			Diagnostic validity of PTSD criteria with the notable exception of avoidance. The inclusion of dissociative symptoms increased the cultural sensitivity of PTSD.	Approximately 55.0 % and 15.0 % had symptom scores that correlated with Western criteria for depression and PTSD, respectively. Despite high reported levels of trauma and symptoms, social and work functioning were well preserved in the majority of respondents. Cumulative trauma continued to affect psychiatric symptom levels a decade after the original trauma events.
Hourani et al. (1986)	Total 5,795 individuals residing in West Beirut between June and Sept 1982. Drop out: 7, n = 5,788	Randomly selected household sample. The sampling procedure for the former group consisted of a random selection of city blocks from each of 6 administrative areas. From maps	Items regarding family composition, housing, environmental sanitation, food and water supply, and relief aid need in addition to information regarding mental health,	In Arabic	Out of the total population, 8.3 % reported at least 1 unusual or inappropriate behavior.

(continued)

Table 16.1 (continued)

Source	Population/phase (camps)	Study design/Aim	Primary measures analyses	Translation/adaptation	Outcomes
		of selected blocks, interviewers randomly chose the building, floor and flat for inclusion in the ample. Since families in the latter group had to be registered in order to receive aid, a random selection of refugees was drawn from lists maintained by relief workers	displacement of residence and morbidity. Interviewers were college student residents who underwent training in the data collection procedure Symptom questionnaire		
	Two categories of families were sampled: families living in their won flats and families displaced to other flats or to special displacement (refugee) centers.		Psychological distress, an interview checklist of symptoms of psychological distress administered to a key informant in each household	In consideration for security and social customs, male and female interviewer pairs conducted the interviews. The key informant method was used to obtain data on all family members (senior member of the family) present at the time of the interview	The occurrence of psychological distress symptoms varied significantly by age, sex, nationality, socio-economic status, loss of physical health and economic loss.
Punamaki (1990)	Three groups of Palestinian women: (1) a West Bank/Gaza group of 174 women from the Israeli-occupied areas; (2) A Beirut group fo 30 women from the refugee camps of	The author and a female Palestinian interviewer visited the homes of the women, The West Bank/Gaza group was selected by quota sampling.	Structured interview, Multiple Affect Adjective Checklist Political hardship – 17 stressful events Worries – 20 items	The questionnaires were in Arabic Under foreign military occupation the security of families who accepted being	The results showed significant differences between the 3 groups in their stress response. The women of the Beirut group were the most traumatized, but

	Sabra and Shatila; and (3) a comparison group of 35 Palestinian women living in Israel proper who were not exposed to direct political violence	The comparison group was matched with the West Bank/Gaza group with regard to the age of woman, social class and place of residence.	Locus of control Coping modes Mental health – 15 items Social-economic factors Descriptive analysis	interviewed was at risk, so the description of the fieldwork was kept to a minimum in the article	psychologically this was reflected only in their showing more helplessness and lack of control in their personal lives than the women of the other Palestinian groups. The Beirut group expressed the lowest and the comparison group the highest level of political and personal worries. The Beirut group suffered less from mental health problems than the West Ban/Gaza group. Thus, mental health problems tended to be more common in threatened areas, where fighting is expected to occur, than in actual fighting areas. Exposure to political hardships also increased mental health problems.
de Paardekooper et al. (1999)	A total of 193 Sudanese refugee children aged between 7 and 12 years were interviewed in Transit Camp and	An adapted form of snowball-sampling was used	Trauma List, subscale of HTQ	All interviewers were fluent in English, Arabic and at least 1 other South-Sudanese language	Symptoms of PTSD and depression were found to be highly prevalent among Sudanese children living in the

(continued)

Table 16.1 (continued)

Source	Population/phase (camps)	Study design/Aim	Primary measures analyses	Translation/adaptation	Outcomes
	123 children were interviewed from settlements. The Sudanese children were compared with a group of 80 Ugandan children, basically with the same cultural background but without experiences of war and flight.				refugee camps Refugees had higher rates of individual psychopathology than the general population and it was observed that the cumulative stress grew as the years in exile progressed
	Nov 1995 – Jan 1996	6 interviewers were recruited from the refugees, 3 males and 3 females.	Daily Stressors Inventory		
		The interviewers received 2 weeks interviewing training	Coping measures Social support measures Mental health assessments WHO Reporting Questionnaire for Children (RQC) adding a question about conduct disorder	During interviewing, they translated and explained the questions in the appropriate language	
Ahmad et al. (2000)	45 Kurdish families in 2 camps				PTSD was present in 87.0 % of children and 60.0 % of their caregivers
De Jong et al. (2002)	A random sample (n = 854) and a sample of clients of a psychosocial support	Examination of the prevalence of mental health problems in refugees living in camps that	Screening survey by trained interviewers	GHQ-28 was translated into Kinyarwanda and Kirundi (the national languages of Rwanda	The prevalence of serious mental health problems was estimated at 50.0 % (SE = 12.0 %).

	programme in these camps (n = 23).	emerged in Tanzania during the Rwanda crisis that started in 1994		and Burundi). Back-translation into English was carried out by 2 translators who worked for other organisations and who had not seen the questionnaire before. Their translation led to some adjustments.	When using the GHQ-28 as a screener, a cut-off score of 14 was recommended
			Questionnaires: GHQ-28	Sensitivity, specificity and positive- and negative predictive values were estimated for several cut-off scores of the GHQ-28	
Tang and Fox (2001)	Senegalese population. Adult refugees ≥18 years from Casamance region of Senegal. A total of 80 participants (39 women and 41 men)	Randomly selected from refugee camps in the Gambia	Questionnaires: HTQ, HSCL-25		Forced separation from family members (77.5 %) and lack of food or water (76.3 %) was most common; 16.3 % mentioned torture experience On the HTQ the average PTSD score was 1.96. On the HSCL-25, the mean anxiety scores was 1.75 and the mean Depression score was 1.92
			Interview schedule:		

(continued)

Table 16.1 (continued)

Source	Population/phase (camps)	Study design/Aim	Primary measures analyses	Translation/adaptation	Outcomes
Van Ommeren et al. (2002)	526 tortured and 526 nontortured Bhutanese refugees living in U.N. refugee camps in Nepal.	Interview of a random community sample.		A checklist of 52 types of physical torture believed to occur in Bhutan, and a list of 17 questions covering a Nepali translation of the *Diagnostic and Statistical Manual* of Mental Disorders, revised third edition criteria for PTSD	Number of PTSD symptoms, independent of depression and anxiety, predicted both number of reported somatic complaints and number of organ systems involving such complaints.
	Data collection in 1995	Interviews were conducted by Nepali medical doctors who had received 1-day training in differential diagnosis of PTSD.	Demographics, torture, somatic complaints, PTSD, HSCL-25 A checklist of 25 somatic complaints	World Medical Association definition of torture	
Lopes Cardozo et al. (2004)	Post-emergency	Population-based survey to assess psychosocial issues, the prevalence of mental illness related to traumatic experiences, and to identify risk and mitigating factors	Questionnaires: Demographic section, SF-36, HSCL-25, HTQ	Tailor-made demographic q,	The most trauma events during the past 10 years: Hiding in the jungle (79.0 %) Forced relocation (67.0 %) Lost property (66.0 %) Destruction of houses & crops (48.0 %) 3.0 % of women and 3.0 % of men were raped Mean score: Social functioning: 64

					Prevalence rate: depression 41.0 %, anxiety 42.0 % and PTSD 4.6 % for the 3 camps combined Women compared to men were more likely to have anxiety symptoms Older age and lack of sufficient food were significantly correlated with worse social functioning Previous mental illness was associated With higher prevalence of anxiety, depression and PTSD symptoms Harassment, basic and violence category of trauma events was associated with anxiety and depression. Separation was associated with increased rates of PTSD, anxiety and depression.
	May 20-June 20, 2001 Karenni refugee population residing in camps in Mae Hong Son, Thailand	Systematic sampling design to randomly select households with stratification for the 3 camps. The household registration	Multivariate an analysis	HTQ adapted Translated from English to Burmese and back-translated into English by a team of translators	A higher total number of trauma events showed an association with PTSD, anxiety and depression

(continued)

Table 16.1 (continued)

Source	Population/phase (camps)	Study design/Aim	Primary measures analyses	Translation/adaptation	Outcomes
	Every 12 h household in the 3 camps: Total 317 households: 495 participants Camp I: Camp II: 214 Camp III: 71 Camp V: 39 All adults over 15 years in each household were asked to participate	system in the camps, updated monthly, was used as the sampling frame. Sample sizes were calculated for each stratum. Households were the primary sampling unit, and the sample of households was chosen by a single-stage systematic random sampling procedure.			
Kamau et al. (2004)	Clients of a community mental health service in the Kakuma refugee camp in Kenya. Based on a handwritten case logbook maintained by the nurse-manager over a period of 3 years	Data collection 1997–1999, the camp population increased from 60,000 to 90,000 persons and they came from Sudan (60.0 %), Somalia (25.0 %) and Ethiopia (15.0 %) and minority groups.	In the log book was documented *DSM*-IV-based diagnoses made during the first assessment of each patient as well as a record of follow up appointments. Due to limited resources it was not possible to collect more extensive data.	PTSD was much lower than the expected community-wide rates for that condition. Several factors (severity, disability, social support and stigma) may influence whether persons with disorder seek treatment in an African setting	Service for 1,852 refugees, slightly less than 1.0 % of the camp population. 60.0 % were Somali, 31.0 % Sudanese. Post-traumatic stress disorder (38.6 % twice as many females as males) and anxiety (22.7 %) was the most common diagnosis. Depression (10.6 %), psychosis (schizophrenia and bipolar disorder, 12.3 %, twice

					prevalent among males), psychosomatic complaints, insomnia and psychosexual disorders (8.9 %), and epilepsy (6.9 %). Notable increase in attendance over the 3 years were PTSD (125.0 %) and epilepsy (70.0 %), with psychosis showing a reduction. PTSD accounted for the greatest percentage of consultations.
		1997 a community mental health service was set up 1 psychiatric nurse			It is feasible to establish a low-cost community mental health service in refugee camps in low-income countries such as Kenya.
Kim et al. (2007)	6 registered internally displaced persons camps in Nyala District. Systematic random sampling, 1,293 households, interviewing	To assess basic health, women's health and mental health among Sudanese internally displaced persons in South Darfur.	Interviewing with a questionnaire (102 questions) demographic, basic needs, morbidity, mental and women's health, and opinions regarding women's rights and roles in society. Asked about events since the	The questionnaire was written in English, translated into Sudanese Arabic and backtranslated into English by 3 native speakers, Three regional, human rights, and medical experts reviewed the	A majority of respondents had access to rations, shelter and water. 68.0 % (861 of 1,266) used no birth control, and 53.0 % (614 of 1,147) reported at least 1 unattended birth. 30.0 % (374 of 1,238) shared spousal

(continued)

Table 16.1 (continued)

Source	Population/phase (camps)	Study design/Aim	Primary measures analyses	Translation/adaptation	Outcomes
	1 adult female/ household N = 1,274, respondents' households totalled 8,643 members Interviews during 1 week in January 2005		holiday of Eid al-Adha, 2003, which coincided with rebel insurrections n Feb 2003 Patient Health Questionnaire (depression), well-validated; Major depression was diagnosed if 5 or more of 9 depressive symptoms were present nearly every day during the previous 2 weeks., cut off score of 15, which has been found to be valid in predicting a clinical diagnosis of major depression Questions regarding suicidal ideation and suicide attempts over the past year among household members were reported as yes or no	questionnaire for content validity, and the survey was pilot-tested with 6 Sudanese IDPs in Sudan	decisions on timing and spacing of children, and 49.0 % (503 of 1,027) reported the right to refuse sex. 84.0 % (1,043 of 1,240) were circumcised. The prevalence of major depression was 31.0 % (3,990 of 1,253). Women also expressed limited rights regarding marriage, movement and access to health care. 88.0 % (991 of 1,121) supported equal educational opportunities for women.

			Women's rights and roles in society were assessed by a response of agree or disagree. Mental health counseling was defined as *having someone to talk to about your problems who will listen and give emotional support* Authors did not study trauma.		
Onyut et al. (2009)	Nakivale Refugee Settlement is one of the 8 official refugee camps in Uganda. Participants came from the	(1) assess the general nutritional, socio-economical, educational, and physical health status, of the refugees (2) assess the prevalence of mental disorders associated with exposure to stressful and traumatic armed conflict situations, spec PTSD and depression,	Sociodemographic interview A 34-Event Checklist Posttraumatic Stress Diagnostic Survey (PDS) Validation Interview:	Translated into the local languages Somali and Kinyarwanda using several steps of translations, blind back translations and subsequent corrections by independent groups of translators.	32.0 % of Rwandese and 48.1 % of the Somali refugees suffered from PTSD The Somalis had a mean of 11.95 (SD = 6.17) separate traumatic even types while the Rwandese had 8.86 (SD = 5.05). The Somalis scored a mean sum score of 21.17 (SE = 16.19) on the PDS while the Rwandese had a mean sum score of 10.05 (SD = 9.7)
	Rwandese and Somali refugees resident in	© ascertain the types, descriptions and			A mental health intervention is as urgent for

(continued)

Table 16.1 (continued)

Source	Population/phase (camps)	Study design/Aim	Primary measures analyses	Translation/adaptation	Outcomes
	this camp. The inclusion criteria: All Rwandese (Hutu) and Somali refugees of either sex above the age of 12 officially registered and resident in this camp in 2003. N = 516 Somalis N = 906 Rwandese	numbers of extremely stressful and traumatic events to which survivors were exposed	The Composite International Diagnostic Interview (CIDI) HSCL-25		post-conflict migrant populations as physical health and other emergency interventions- A mental health outreach program was initiated based on this study.
Akinyemi et al (2012)	Oru Refugee Camp, in outskirts of Oru town, Nigeria	A cross-sectional study design comparing refugees with nonrefugees within the same geographical location Power calculation	Interviewer-administered structured questionnaires: MINI, WHOQOL-BREF, Community Quality of life	Cronbach α	While the majority (84.7 %) of the refugees were married, most (88.8 %) of the native population were not. Significantly higher proportion of

	Opened 1990, the only in the country Residents of Oru community and the refugee camp aged 18 years and above who had resided in the area for at least 1 year prior to the study N = 444 refugees and n = 527 non-refugees, 2/3 Liberians	N = 431 Cluster sampling	Assessment of clinical variables such as suicide ideation, visual hallucination, drug and alcohol abuse, mania, PTSD, obsession and depression (MINI)	refugees had polygamous marriages, lived in poorer type of accommodation and had no moral education compared to the non-refugees. Overall QoL and Community QoL scores were both significantly lower for the refugees. Refugees were 3 times more likely than non-refugees to have poor mental health. Unskilled workers, skilled workers and the unemployed had 2 or more times odds of poor mental health compared to professionals. QoL and occupational status were the major threats to the mental health of the refugees.

believe that trauma-related symptoms are not having a significant impact on the health and well-being of the refugee communities (Summerfield 1999). Indeed, a recent study by Mollica et al. (2013) reveals that the latter is a misconception. Cambodian civilians living in the Siem Reap province in Cambodia 25 years after the Pol Pot genocide were shown to have high rates of PTSD and depression as compared to non-traumatized Khmer living in Surin province in Thailand. In this study, comparing 2 Khmer communities, the prevalence of PTSD in Siem Reap, Cambodia, was 20.6 % compared to 2.2 % in Surin, Thailand. In addition, the negative health impact of trauma was significant. Of note, women and children were shown in each case to be at higher risk for mental health disorders. It is still unclear, however, whether women and children have a differential response to trauma, and are more vulnerable as well to severe trauma (e.g. rape and sexual violence) overtime while living in the camps. A diary of the traumatic life experiences of refugees by gender and demography overtime has never been conducted by camp authorities. In contrast to the "rubber-band" analogy, research has been suggesting that the mental health disorders associated with the refugee experience exist and can be identified and persist for decades after the refugee camp experience has ended (Priebe et al. 2010). One study by Priebe et al. (2010) of war-affected community samples (N = 3,313) in 15 regions throughout each of the 5 countries in the Balkans several years after the conflict in the region found that the prevalence of anxiety disorder reached 41.8 %, mood disorders, 47.6 % and substance use disorders, 9.0 % (Table 16.2).

New Model of Refugee Care (H^5 Model of Refugee Trauma and Recovery)

The authors of this chapter drawing on advances in culturally and scientifically valid research with refugees and traumatized communities are offering *H^5 Model of Refugee Trauma and Recovery*. This constitutes a new mental health model for refugee care. This model advances the work of Mollica and his colleagues that generated the multi-dimensional *Global Mental Health Action Plan*, based upon a meeting of the world's conflict and post-conflict MINISTRIES of Health in Rome, December 2004 (Mollica et al. 2011). The *GMH Action Plan* emphasizes the importance of considering all 8 dimensions in mental health planning and clinical care when considering the recovery of traumatized communities. These dimensions are:

- policy legislation;
- financing;
- science-based mental health services;
- multi-disciplinary education;
- role of international agencies;,
- linkage to economic development; and
- human rights, /ethics; and
- research evaluation.

Table 16.2 Comparison of no-trauma, trauma & PTSD by chronic illness

	No trauma	Trauma	PTSD	Trauma vs. no trauma		PTSD vs. no trauma		PTSD vs. trauma	
	n = 738	n = 4,054	n = 574						
	%	%	%	AOR	95.0 % CI	AOR	95.0 % CI	AOR	95.0 % CI
Chronic Pain conditions									
Arthritis/rheumatism	16.9	28.3	38.1	1.9	(1.5–2.5)*	2.8	(1.9–4.1)*	1.5	(1.2–1.8)*
Back/neck pain	17.2	30.2	49.4	1.8	(1.4–2.3)*	3.0	(2.1–4.2)*	1.7	(1.4–2.0)*
Headaches	14.8	22.1	50.3	1.6	(1.1–2.3)+	3.2	(2.1–4.9)*	2.0	(1.6–2.6)*
Chronic pain	1.8	10.1	22.1	5.4	(3.6–7.9)*	10.1	(6.6–15.5)*	1.9	(1.5–2.4)*
Cardiovascular conditions									
Heart attack	1.5	3.6	2.7	1.7	(0.6–5.0)	1.5	(0.5–4.9)	0.9	(0.4–1.7)
Heart disease	1.3	4.9	7.5	3.1	(1.3–7.1)*	6.3	(2.3–17.2)*	2.1	(1.5–2.9)*
High blood pressure	16.7	24.6	26.7	1.5	(1.0–2.3)	2.0	(1.3–3.2)	1.3	(1.1–1.7)
Respiratory conditions									
Seasonal allergies	27.6	39.0	45.2	1.7	(1.3–2.2)*	1.2	(1.1–1.4)*	1.1	(0.9–1.3)
Asthma	88.1	11.9	14.1	1.5	(1.0–2.2)	1.4	(0.9–2.0)	0.9	(0.7–1.2)
Lung disease	0.5	2.2	4.6	3.8	(1.0–15.1)	6.0	(1.3–27.3)	1.6	(0.8–3.0)
Neurologic conditions									
Stroke	2.0	2.6	3.7	1.0	(0.6–1.9)	2.0	(0.9–4.6)	1.9	(1.0–3.6)
Epilepsy	0.8	1.8	4.4	2.0	(0.7–6.0)	3.8	(1.1–13.8)+	1.9	(1.2–3.0)+
Other conditions									
Diabetes	3.1	7.7	7.8	2.6	(1.7–4.1)*	3.1	(1.8–5.3)*	1.2	(0.8–1.7)
Ulcer	4.2	9.5	17.5	1.9	(1.2–3.0)+	2.8	(1.7–4.5)*	1.5	(1.1–1.9)*
Cancer	1.7	6.4	7.3	3.5	(1.7–7.3)*	4.8	(2.1–10.9)*	1.4	(0.9–2.0)

Copy of Table 2 of Sledjeski et al. (2008)

Adjusted for gender, race, age, income, insurance coverage, smoking status, and lifetime diagnoses of MDD, other anxiety disorders, and substance related disorders

*Significant after Bonferroni adjustment, + marginally significant

Fig. 16.3 Refugee care H^5

Silove et al have introduced the Adaptation and Development after Persecution and Trauma *(ADAP T)* model (Silove and Rees 2011). The *ADAPT* model emphasizes a two-tier system of recovery that encourages improving social conditions and clinical services. *ADAPT* dimensions include: (1) establishing safety; (2) repair of interpersonal bonds; (3) building systems of justice; (4) establishing meaningful roles and identities; and (5) recreating meaningful political and social institutions. The *GMH Action Plan* and *ADAPT* overlap quite considerably. In this chapter we offer a new refugee care model as a companion to the others. While the *GMH Action Plan* and *ADAPT* sketch out domains of recovery, each are limited in not elaborating concretely the underlying psychological and medical practices that are informing each of these domains. In addition, priorities of action and concrete practices are not fully described.

Figure 16.3 depict the 5 dimensions of our model for the recovery of traumatized refugee communities worldwide. Each will be discussed in turn after the central core of all five—the "centrality of the trauma story" is first addressed. The implications of this new model for refugee policy and planning will then be finally addressed.

The Centrality of the "Trauma Story"

By definition, refugees experience many human rights abuses. The refugees' exposure to extreme violence (e.g., including atrocities and violations of unspeakable horror) includes 100.0 % of the entire refugee population. Unfortunately, refugee camps sometimes can expose refugees to new traumatic life experiences, not to mention exposure to severe poverty, being unable to return home to friends and family, and the possibility of suffering the psychological distress of resettlement. While the public health and clinical response to diseases of epidemic potential have improved especially in camps (Salama et al. 2004), the identification and treatment of mental health conditions remain inadequate, and is rarely reported in the scientific literature. In spite of the latter, progress over the past three decades has been made regarding the full recognition of refugees as traumatized persons who have suffered major human rights violations leading to major health and mental health problems.

Medical insight into the potential impact of trauma on the health and mental health of refugees began when Mollica and Jalbert (1989), collaborating with the *World Federation of Mental Health,* conducted the first mental health assessment of a Cambodian refugee camp, Site 2, on the Thai-Cambodian border, between September 26 and October 6, 1988. Their report, submitted to the UN Secretary General on February 15, 1989, established in a reliable fashion the past and present human rights violations and the high level of unacknowledged mental health problems affecting the more than 300,000 Khmer living in confinement under UN control. (This report is available from the authors, upon request.) After this initial breakthrough occurred and the mental health reality of the Cambodians revealed, the United Nations requested a policy document to implement an action plan (Mollica et al. 1989). Following the dissemination of these results, the *Ford Foundation*, with the UN approval, funded the first large-scale epidemiological survey of a refugee camp (i.e. Site 2), that housed more than 176,000 Cambodian men, women and children. The Site 2 study (Mollica et al. 1993) was a large scale study to actually measure the trauma events experienced by a refugee community using culturally validated instruments.

The Site 2 study was enabled the development of the Harvard Trauma Questionnaire (HTQ) by the Harvard Program in Refugee Trauma (HPRT). HTQ allowed researchers engaged in large epidemiological studies to actually measure types and levels of traumatic events. As Fig. 16.4 shows, the degree and types of trauma experienced by these camp residents was massive and horrific – with many traumatic life experiences continuing during UN refugee camp internment. While torture dropped from 35.8 to 7.8 % and rape from 17.0 to 5.9 %, for example, it was still occurring at unacceptable levels in the camp.

This ability to successfully measure the traumatic life experiences of refugees in large scale studies lead to a revolution in our understanding of the relationship between traumatic life experiences and health, mental health and well-being of affected populations. Dose-effect relationships measuring cumulative trauma and

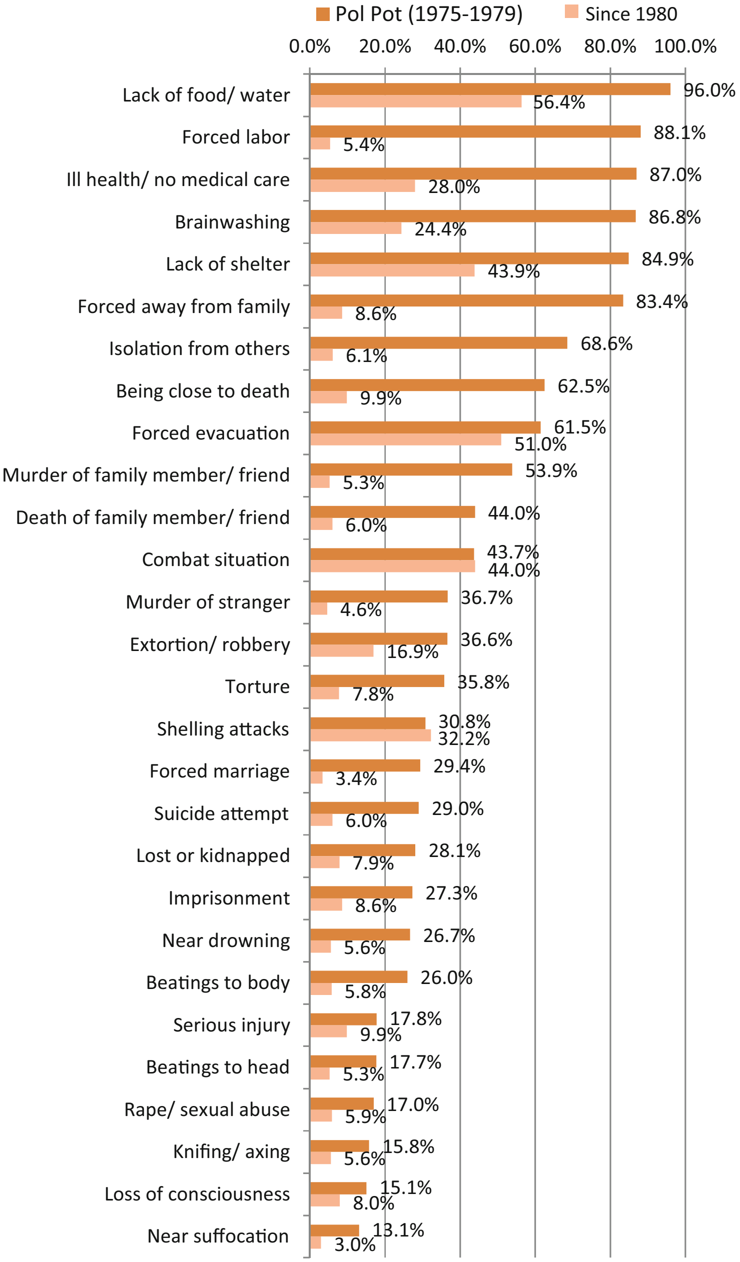


Fig. 16.4 Trauma events experienced during Pol Pot regime and since 1980 in Site 2, n = 993

mental health outcomes have been demonstrated (Mollica and McKinnes 1998). Başoğlu et al. (2007) dramatically revealed in a study of the survivors of torture in the Balkans, that maltreatment during captivity, such as psychological manipulation, humiliating treatment, and forced stress positions were not substantially different than physical torture in the severity of the mental health suffering produced. Mollica et al. (2009) showed in neuro-imaging studies brain disorder associated with torture in Vietnamese re-education camp survivors who had experienced traumatic head injuries.

A study by Husain et al. in the Tamil area of Jaffna district in Sri Lanka (Hussain et al. 2011), using the original Site 2 methodology, revealed the ongoing advances in scientific knowledge on the mental health impact of traumatic life experiences based on population studies of refugees. In this study, currently displaced persons were more likely to report symptoms of PTSD, anxiety and depression as compared to long-term residents. While the population average for trauma events was a mean of 2.76 events, more than half of internally displaced persons experienced more than 10 events compared to 4.0 % of resettled and 2.5 % of long-term residents. Again a dose-effect relationship between trauma and mental health symptoms was demonstrated. Mental health symptoms affected more than 50.0 % of those living in IDP camps. These authors pointed out, that traumatic events themselves may be a proxy for a more traumatic scenario for IDPs that includes insecurity, deteriorated living conditions, loss of livelihood, and lack of services. These researchers postulated that specific trauma events may trigger off greater mental health disorders in individuals who are made to be increasingly psychologically fragile because they are living in degraded camp conditions, as compared to long-term residents. This interaction between trauma and camp environment is taken up in the H^5 refugee care model.

While these advances are clarifying the concrete health and mental health impact of trauma events on refugees and IDPs, there is still a long way to go toward generating knowledge on the possible, irreversible brain damage created by trauma, the differential impact of trauma on women, children, and adolescents, and the response of all age groups to treatment interventions.

Five Dimensions of the New H^5 Model

Human Rights

Human rights violations are embedded in the definition of refugee. Safety and security is a foundation of refugee care (Mollica et al. 2004). Unfortunately, in many refugee camps human rights violations continue to occur. All human beings faced with the experience of violence want to tell someone else they trust their trauma story. Since their traumatic life history affects all aspects of the refugee's well-being, the question is, where do we begin? And what action do we take once the story is told to a UN camp manager, a NGO team leader or a camp doctor or social worker?

According to our model, at some point in the refugee camp process, individuals must have an opportunity to officially tell camp officers their trauma story and to reveal to authorities all of their experienced human rights violations, past and present. Mollica et al. have outlined the major dimensions of the trauma story (Mollica 2006) that they use in research and in clinical practice. While it is not expected that the refugee in the acute crisis will be able, or should be able to do this, ultimately as safety and security is established the individual's trauma story must be recorded and acknowledged. The implications for recovery are enormous. UN and camp NGOs must also be ready to hear about existing camp violence. In consideration of past and present violence, some sense of justice must be discussed with the refugee and their community about related human rights violations. While it is well known that the UN may not be able to offer effective solutions of justice, such as criminal prosecution, compensation, or apologize to the refugee community, at least the refugee's need for justice will be acknowledged (Petevi and Kerko 2011). In our model, the rape of a refugee during the pre-flight experience in the refugee camp is a violation not just of the individual, but of their family, community, the larger refugee camp, and even the world. From a public health perspective, trauma is the agent, the camp is the environment, and the refugee is the person and all 3 are interacting to cause potentially severe negative health, mental health and social consequences. In summary, the refugee trauma story must be acknowledged by camp authorities and given a response.

Humiliation

An underlying goal of perpetrators of violence is to culturally annihilate the person, the family, the community, and even the nation. The goal of violent acts, regardless of intensity, is the same—to create the emotional state of humiliation. Rarely do we hear the word "humiliation" used in the planning of relief to refugees. How can so many millions of people who have deeply been humiliated by violence, who have experienced atrocities, lost their home and belongings only to enter into impoverished refugee camps, be psychologically denied their reality? This lack of an appreciation of humiliation is not difficult to understand when one recognizes that modern psychology has ignored humiliation completely, not only as a personal state but also as a social process. Sigmund Freud in all his works never mentioned the term "humiliation." It is not hard to also witness that humiliating events are used to create the state of humiliation—the desired goal of the perpetrator. And that state is hidden often by the deeper and stronger emotions of despair/depression and anger/revenge. Often, both sets of strong emotions alternate in the same person. Humiliation is a profound and widespread form of human suffering associated with loss of dignity, honor, and the feeling of injustice.

Mollica (2006), in *Healing Invisible Wounds* referred to the phenomenological description of humiliation: *Perpetrators try to introduce into the minds of their victims their fundamental worthlessness. During acts of violence there is a complete absence of love, affection, and empathy. In trauma stories of extreme violence, the feeling of humiliation is fully revealed, allowing us to achieve a complete appreciation of all dimensions. Humiliation is a very complex human emotion because it is primarily linked to how people believe the world is viewing them. It is not a clear-cut emotion like fear, but rather a state of being, characterized by feelings of physical and mental inferiority, of uncleanliness and shame, of spiritual worthlessness and guilt, and of repulsiveness to others, including God or higher being.*

Only now we are beginning to clarify a humanistic psychology underlying the refugee experience, missing in *ADAPT* and the *GMH Action Plan*. Humiliation and violence leads to a totalizing loss of self-respect. It can have major impacts on a refugee's personal and social behavior. In psychology there are very important concepts associated with humiliation, such as learned helplessness and lack of self-efficacy. Violence-induced states can affect the refugee's ability to rebuild his/her community and a sense of well-being for their family. Often in refugee camps we re-create the state of humiliation by not allowing refugees to work, plant food, and make money for their families. Then there is always the ongoing threat of sexual abuse of self, family, friends, and neighbors. The refugee camp can freeze the state of humiliation in time not allowing a competent, dignified and effective human being with a well-defined social role to emerge. Unfortunately, no research on the state of humiliation and its impact on health and well-being for any refugee group exists. In a recent study of humiliation in Pakistani youth ($N = 3{,}415$), including some in refugee camps, exposure to humiliation was highly associated with somatic complaints after controlling for gender, residence and other measures of violence (Giacama et al. 2007). The researchers stated: *There are some worrisome links between "humiliation" and the "hunger for retaliation and revenge."* Through the incorporation of humiliation concepts into existing measures of exposures to violence and trauma, we can begin to make headway into our understanding of mental health, risky behavior and the healing of trauma. The full delineation of humiliation in refugees of all ages and its impact on their recovery needs to be established.

Healing (Self)

Research on resiliency and self-healing has opened up an entirely new area to be considered in dealing with highly traumatized refugee populations. This focus of research is now being directed at refugee camps through NGOs and humanitarian relief agencies, focusing primarily on psychosocial interventions. This dimension of refugee care builds on: (1) the strengths of refugees and their communities; and (2) the refugee's social support systems and network. The current focus on family re-unification is to be applauded. Refugee camps become new communities, and these new communities need all of the political and economic support of any local civil society in a village or town. Mollica (2006), in *Healing Invisible Wounds*, recommends that the traumatized person at the outset of care be asked the following 4 self-healing questions: *(1) What traumatic events have happened?; (2) How are your body and mind repairing the injuries sustained from those events?; (3) What have you done in your daily life to help yourself recover?; and (4) What justice do you require from society to support your personal healing?* The NGO or UN agency can build upon the answers to these questions. This is usually a potent and inexpensive way of promoting recovery. The major 3 components of the social instruments of self-healing (i.e. work, altruism, and spirituality) have been well-described in the scientific and in the grey-literature of humanitarian relief organizations.

The recent document from the World Health Organization (WHO) and UNHCR entitled *Assessing Mental Health and Psychological Needs and Resources: Toolkit for Humanitarian Settings (World Health Organization and UNHCR* 2012*),* is based on the publication *Mental Health Support in Humanitarian Emergencies: What Should Humanitarian Health Actors Know (IASC Reference Group* 2010*)*, and the *Sphere Handbook' s Standard on Mental Health (Sphere Project* 2011*)*. This document sets out to offer a wide range of tools related to Mental Health and Psychological Support (MHPSS) for actors and donors at all levels to improve the mental health and well-being for populations served by the UNHCR. The new WHO/UNHCR document does an adequate job in trying to bridge the need to assess mental health disorders and the access of these individuals to care, as well as provide the tools for assessing the wide range of psychosocial needs and services delivered to refugees by UNHCR and their NGO partners.

The strength of the WHO/UNHCR document is that it attempts to cover almost all psychosocial areas and mental health problems. The document also emphasizes cultural sensitivity, the need for contributions from all stakeholders, including refugees and informed consent. It is our opinion, that the document in contrast to ADAPT, the GMH Action Plan and the H^5 Model for Refugee Care has a limited theoretical foundation, and does not clearly define the major stresses on refugees and the related health and mental health outcomes. Priorities are not set for establishing the most potent, cost effective strategies for relieving suffering and promoting well-being. The core reality facing refugees—i.e. their traumatic life experience—is not mentioned. Assessing psychological models of suffering such as humiliation are absent. In addition, there is little assessment of the social instruments of self-healing such as work, altruism, and spirituality. Assessing quality of housing is only briefly mentioned in one instrument. Overall, this document reaches out to the UNHCR and WHO constituency with a list of instruments almost all that have not been culturally validated or proven to be evidence-based. The hypotheses underlying these instruments are not stated outright, the scientific validity of the tools not clarified, and the proper translation of instrument data to action at the field level not presented.

However, this document reflects an impressive recognitions by WHO/UNHCR that refugees have mental health needs and that some may suffer from psychiatric disorders and that a system of care needs to be in place to care for persons with mental disorders. It is important to notice that a small percentage of refugees are in need of psychiatric treatment, because they have been so badly damaged that they are unable to profit from community-based psychosocial interventions. In every refugee camp the seriously mentally ill will need quality psychiatric care, since those persons will need more assistance than can be provided by traditional healers and psychosocial programs (Silove and Rees 2011).

Health Promotion

There is emerging evidence that refugees, persons in post-conflict countries and those impacted by conflict have increased levels of long term chronic health outcomes attributable to their traumatic experiences and high levels of distress (Kinzie et al. 2008; Spiegal et al. 2010; Roberts et al. 2012). Refugees with higher levels of trauma have higher blood pressure and more diabetes than the general population (Kinzie et al. 2008). Post-conflict countries are showing long-term higher levels of mortality, harmful health behaviors (smoking, drinking, reduced activity, and higher obesity), high levels of hypertension and other risk factors for major health problems, with limited capacity and settings with which to deal with these problems (Roberts et al. 2012). Excess mortality in conflict-affected persons is higher for people outside refugee camps than those within and higher for IDPs than refugees (Salma et al. 2004), and the health care needs are the greatest where there is least capacity (Spiegal et al. 2010). In a study on the enduring impacts of the Pol Pot genocide, we found that older traumatic experience directly impacted functional and perceived health, whereas with more recent traumatic experiences the effect was fully mediated by PTSD and depression (Mollica et al. 2013). In a study of 105,180 adult asylum seekers in the Netherlands, who on reception were examined for physical illness and PTSD, there was a higher rate of Type 2 diabetes in those with PTSD (Agyemang et al. 2011). These indicators of worse health outcomes and needs are consistent with a growing body of literature showing the long-term relationships between traumatic experience and physical health. Within this light, it must be remembered that refugees and conflict-affected persons are amongst the most trauma-affected persons (Green and Kimerling 2004; Sareen et al. 2007; Janowski 2012; Del Gaizo et al. 2011; Cromer and Sachs-Ericsson 2006; Spitzer et al. 2009; Sledjeski et al. 2008).

The relationship between traumatic experience and health is complex, as neither trauma nor health, are simple constructs. Traumatic experience consists of a wide range of events, with findings generally supporting worse outcomes for human upon human violence compared to natural disasters. However, this is not a simple dichotomy as people throughout their lives experience multiple traumas, natural and human-made, and those that experience childhood trauma are much more likely to experience other traumatic events (Sameroff and Rosenblum 2006). Further, specific traumatic experiences can be particularly potent, including torture, rape, disappearance of a loved one, unnatural death of a family member, ongoing child maltreatment, making the task of creating simple categories complex. Additionally, it is well established that those traumatized as children are more likely to experience lifelong traumatic experience adding to the burden they already carry (Anda 2006; Anda et al. 2008a, b; Felitti et al. 1998). Since there are dose effects of traumatic experience for all psychological outcomes (Mollica et al. 2013), there may also be dose effects for physical health outcomes (Sledjeski et al. 2008). Compounding these conceptual issues is the complexity of retrospectively measuring traumatic experience, with there being substantial problems in obtaining reliable and valid assessments of historic traumatic experience (Corcoran et al. 2000).

Similarly, health is a complex construct including objective and subjective elements. It consists of a large range of diseases/conditions, chronic and acute, a large number of symptoms that can apply to a range of diseases, functional health, perceived health and lifestyle risk factors known to negatively impact health. Further, the causes of ill-health are complex, including infectious agents, genetic factors, lifestyle factors (e.g. smoking), injury, stress, with many health issues having multi-factorial causes. Related to the outcomes of ill-health are a range of other factors that may in some ways be as important as the ill-health itself in determining the impact of disease, including help-seeking and compliance with and response to treatment. The relationship between traumatic experiences and the long-term physical illness and disabilities in refugees demands a new focus on health promotion (Tables 16.3 and 16.4).

While resettled, refugees, asylum seekers and civilians within post-conflict countries seem to be experiencing significant increases in chronic illnesses. Yet, few studies exist, if any, on the trauma-related health risks in refugee camps, especially those with long-stays. The potential health risk of trauma in refugees, however, is consistent with research showing a link between trauma and chronic disease that has recently been demonstrated. Research in this area shows that persons who experienced trauma are more likely to die younger of all causes, including external causes, and develop chronic illnesses (e.g. ischemic heart disease, diabetes) which severely impact their life. They have poorer behavioral health, they smoke more, use alcohol and drugs more, they exercise less and have poorer eating habits resulting. These are all risk factors for the development of chronic illnesses. This shows that trauma impacts chronic disease through direct and indirect effects, through mental illness (PTSD and depression) and through unhealthy lifestyle. The mediating role or importance of PTSD is an open question. Potentially, the simple trauma dose itself may be sufficient to explain most results, yet some diseases, particularly pain-associated disease, seem to be strongly related to PTSD. Particular traumatic experiences have differing effects, with human-instigated trauma being most toxic. All of this evidence points to the critical role of health promotion in highly traumatized populations such as refugees.

Table 16.3 Comparison of no trauma, trauma & PTSD by cardiovascular and endocrine diseases

Medical conditions, %	No trauma (n = 1,440)	Trauma (n = 1,669)	PTSD (n = 62)	χ^2	Trauma odds ratio (95.0 % CI)	PTSD odds ratio (95.0 % CI)
Angina pectoris	5.3	9.7	27.4	52.61***	1.2 (1.1–1.3)**	2.4 (1.3–4.5)**
Myocardial infarction	2.1	5.8	6.5	27.35***	1.1 (1.0–1.3)	1.1 (0.4–3.5)
Heart failure	16.5	25.6	61.3	93.14***	1.2 (1.1–1.3)***	3.4 (1.9–6.0)***
Stroke	1.5	4.0	3.2	17.70***	1.2 (1.0–1.5)*	0.7 (0.2–3.1)
Diabetes	6.8	13.5	19.4	41.63***	1.1 (0.9–1.2)	1.5 (0.7–3.1)
Thyroid disease	20.0	24.3	37.1	15.85***	1.0 (0.9–1.1)	1.4 (0.8–2.5)
Chronic bronchitis	3.8	5.7	21.0	38.05***	1.3 (1.1–1.4)***	3.0 (1.5–6.0)**
Bronchial asthma	1.9	3.5	11.3	22.04***	1.2 (1.0–1.5)*	2.9 (1.2–7.0)*
Peptic ulcer	5.1	6.1	12.9	7.34*	1.1 (0.9–1.2)	1.3 (0.6–2.9)
Liver diseases	1.0	2.3	9.7	27.62***	1.2 (1.0–1.5)	3.1 (1.2–8.2)*
Renal disease	2.6	5.4	9.7	20.06***	1.3 (1.1–1.5)**	1.6 (0.6–3.9)
Varicosis, thrombophlebitis	10.3	15.3	24.2	23.59***	1.1 (1.0–1.2)	1.5 (0.8–2.9)
Peripheral arterial disease	5.9	10.8	29.0	54.41***	1.1 (1.0–1.2)	2.5 (1.3–4.7)**
Polyarthritis, osteoarthritis	8.3	15.1	22.6	40.32***	1.1 (1.0–1.2)*	1.2 (0.6–2.4)
Osteoporosis	4.0	6.8	16.1	23.56***	1.0 (0.8–1.1)	2.1 (0.9–4.7)

Copy of Table 2 of Spitzer et al. (2009), Punamaki (1990)

* p 0.05; ** p 0.01; *** p 0.001

PTSD posttraumatic stress disorder, *OR* odds ratio, *CI* Confidence Interval

Table 16.4 PTSD compared with no PTSD in a large community sample

Chronic Condition (PTSD ≥ 6 months)	AOR	95.0 % CI
Community Sample n 36,984, ≥ 15 years, response rate 77.0 %		
Asthma	1.99	(1.38–2.88)***
Chronic bronchitis, emphysema or chronic obstructive pulmonary disease	3.08	(2.01–4.72)***
Chronic pain conditions		
Fibromyalgia	2.59	(1.50–4.47)**
Arthritis (excluding fibromyalgia)	3.46	(2.49–4.81)***
Back problems (excluding fibromyalgia and arthritis)	2.04	(1.51–2.74)***
Migraine headaches	2.77	(1.99–3.85)***
Cardiovascular diseases		
Hypertension	1.55	(1.09–2.20)*
Heart disease	1.69	(1.08–2.65)*
Neurologic diseases		
Stroke	2.31	(0.99–5.36)
Epilepsy	1.69	(0.58–4.94)
Metabolic conditions		
Diabetes	1.58	(0.92–2.73)
Thyroid condition	1.06	(0.68–1.64)
Gastrointestinal diseases		
Bowel disorder (Crohn's disease or colitis)	1.85	(1.07–3.21)*
Stomach or intestinal ulcers	1.93	(1.22–3.07)**
Other conditions		
Chronic fatigue syndrome	5.78	(3.47–9.65)***
Cancer	2.69	(1.36–5.32)**
Multiple chemical sensitivities	3.95	(2.46–6.35)***

PTSD posttraumatic stress disorder; chronic condition a condition expected to last or already lasted 6 months, diagnosed by a health professional; AOR (95.0 % CI) adjusted odds ratio and 95.0 % confidence interval-adjusted for gender, age, marital status, education, income, depression, mania, panic attacks, agoraphobia, social phobia, alcohol dependence, and drug dependence

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

Housing and Habitat

This is an exciting and important new area of refugee mental health research. The iconic image of refugees living in tents, mud huts, and bamboo shacks liter the global news (Frankenberger and Maxwell 1992). The overall quality of such a housing and it relationship to trauma recovery at this time still seems to be almost an irrelevant question. Simply stated, *Does refugee camp housing affect the refugee's health and well-being?* Similar to the concept of humiliation, this domain of recovery has received little research attention. As Al-Khatib et al stated in their study on the impact of the housing environment on Palestinians' health in their refugee camps: *Nowadays, Palestinian refugee camps are a model of poor* *environmental conditions and lack of green and planted areas or open spaces, with overcrowding (Al-Khatib et al.* 2005*).*

"Habitat" may be a more overarching term than housing, since it is defined by the Oxford Dictionary as, *The natural environment characteristically occupied by a particular organism. One's dwelling place. Usual surroundings.* In this definition, the expression "natural environment" usually implies an underlying state of harmony with one's residence that probably does not exist in the housing and physical environment of most refugee camps. In the study by Al-Khatib et al. (2005) on the effect of housing on women's health these researchers describe in graphic detail the dilapidated quality of UNRWA housing for the Palestinian refugees living in their housing. Nearly 90.0 % of married woman suffered from health problems and the results show a significant relationship between crowding and the lack of privacy. These researchers were able to point out that repetitive use of the upper extremities by women doing hard house work in overcrowded environment lead to neck problems. Mechanisms for headaches and back pain were also discussed. In this age of modern housing design, new materials, the green revolution and technological innovation modern housing for refugees are being reinvented that are cost-effective, healthy, and can replace the UN housing commonly seen in current reports of refugee camps.

Conclusion

This chapter has attempted to demonstrate that refugee care needs a new model of recovery for refugee communities world-wide. Over the past three decades, impressive gains have been made in recognizing the importance of mental health in the emergency phase (Mollica et al. 2004) and in identifying and treating the small number of refugees with serious mental illness (Silove and Rees 2011). It is our opinion that the long-term recovery of refugees focusing on the entire population is in need of a new paradigm of refugee care. We began with the acknowledgement that all refugees are trauma survivors, that their traumatic life experiences are often of a horrific nature, and that they affect all aspects of the refugee's personality, family life, health, emotional well-being and recovery. And in line with the advances at the macro- and micro levels of the *Trauma-Informed Care* movement, all key stakeholders in the UN and their partners and donors, including the refugees themselves, must be cognizant of the impact that traumatic life experiences have on their well-being and recovery. The model by *H^5 Refugee Trauma and Recovery* begins with highlighting the centrality of the trauma story for all refugees of all ages with whom we came into contact. Survivors of trauma need each of the 5 dimensions of care to be considered and used in crafting refugee policy, planning, and services. A refugee and IDP camp must first and foremost be a place of restoring emotional and physical health and well-being, and not an environment of poverty and despair that creates illness and emotional suffering by re-traumatizing its refugee community. In this chapter, the 5 basic dimensions of our "refugee care model" were presented. Within each of the 5 dimensions, culturally and scientifically valid approaches need to be elucidated and translated into action at the field level. This chapter has laid out the road-map for this process to occur. Our recommendations that follow cite only the beginning of a long and elaborate scientific discussion that needs to occur. These recommendations are the first step that can be embraced by all key stakeholders to create a new trauma-informed care community of practice.

Human Rights

Ongoing human rights violations in the refugee camps need to be documented, closely monitored, and brought to the attention of camp authorities for remedy. Social justice issues, including camp violations, need to be openly addressed with the refugee community and adequately responded to within the limitations of the UN mandate.

Humiliation

Make available the UN *Code of Respect* by the UNCR and its proxies, toward maintaining the dignity of all refugees must be written, enforced, and widely disseminated. Policies and programs that do not degrade refugees and actively enhance their self-living must be planned and implemented. This includes the promotion of independent living and self-sufficiency and zero tolerance for gender and child-based violence, including sexual abuse, rape and domestic violence. UN staff and NGOs should never behave in a humiliating or culturally degrading manner, or exploit the vulnerability of the refugees they serve.

Healing (Self)

Provide an initial needs assessment to determine their self-healing status as early as upon entering the camp to all refugees, including adolescents and children. Psychosocial programs must build on the strengths that are illuminated by the needs assessment, including readily accessible programs for work, spirituality, and altruistic behavior (i.e. volunteerism). Psychiatric services should be made readily available at the refugee health clinics for the seriously mentally ill.

Health Promotion

Implement a universal health promotion program for all refugees in the camps that include diet, exercise, stress reduction, sleep hygiene, and other health promotion techniques and programs.

Housing and Habitat

Enable refugees to participate in the design, construction, and management of their refugee camp homes in order to meet their cultural and personal needs. Emphasize quality of construction; more attention should be paid to safety within the home, including a danger-free work environment for women and play space for children.

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Part VI
Facing the Challenges of Violence

Berlin, Stumbling-stones, Bayrischer Platz, Berlin. Memorials to victims of violence. Sketch by artist Hans Guggenheim

Chapter 17
From Sharpeville to Marikana: The Changing Political Landscape for Mental Health Practice in a Violent South Africa

Leslie Swartz

Introduction

On 16 August 2012, at Marikana, in the North West Province of South Africa, police shot and killed approximately 47 people, most of whom were mineworkers participating in a wildcat strike for better pay and working conditions. This tragedy has been viewed by many as the first post-apartheid 'Sharpeville'-type massacre (The Sharpeville massacre has iconic status in the history of the struggle against apartheid). On 21 March 1960, police fired on a crowd of anti-apartheid protesters in Sharpeville, near Johannesburg, and 69 protestors were killed. By most accounts, the crowd were unarmed, and the event is seen by some as the beginning of the final ideological crisis for apartheid, setting in place a series of events which eventually led to the fall of apartheid and the installation of democracy in South Africa in 1994.

Between the event of Sharpeville (which of course has its own history going back through centuries of colonialization and racial domination of black South Africans by whites) and the more recent Marikana massacre, which occurred in a democracy and ostensibly at the behest of democratically elected government, lies a complex and contested history. In this chapter I outline some of the issues which have affected both the mental health of South Africans and the ways in which organized mental health movements have responded to the human rights challenges in this country. All these challenges relate in one way or another to questions surrounding violence, however widely or narrowly defined. If violence is understood narrowly, only in terms of direct assaults on bodies through beatings, shootings, rapes and killings, for example, there is a long and complex South African story about it. Similarly, if violence is understood more broadly (and probably more accurately) to encompass what has commonly been termed 'structural violence' –

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processes which include discrimination, dispossession, disenfranchisement, forced removals and confiscation of land and property, humiliation and denigration, South Africa has a story about that. And the history of mental health care and how it positions itself in relation to the abuse of bodies is part of the South African story. It is certainly true that in every country in the world, mental health care practitioners grapple in one way or another with issues of violence, inequality and exclusion, and there is no longer any doubt that there is a relationship between poor mental health outcomes and absolute and relative poverty and inequality (Lund et al. 2010; Petersen et al. 2010a, b). But the issues of politics, inequality and mental health are writ large in South Africa – indeed, an examination of the South African context may reveal issues which are of importance in many other countries (Swartz 1985).

This chapter focuses on issues of violence and mental health care in the decades immediately before the fall of apartheid and subsequently. In order to contextualise the discussion, however, a brief background history is necessary.

A Brief Background History

Every historical account, however comprehensive, is selective, and will tend to reproduce the assumptions of the author. This is probably even more true of brief histories. Given that 'history is written by the victors', to use words attributed to Winston Churchill, many histories are accounts written by those in power. If we examine the historical writings on mental health care in South Africa, there are 2 major trends. On the one hand, there are attempts to construct a narrative which presents itself as objective and scientific, a recent example of which (Gillis 2012) presents South African psychiatry as having developed along a fairly smooth evolutionary path, from crude custodial methods in previous centuries, to the highly sophisticated use of psychotropics and understanding of the brain today (see also Minde 1974). Politics, and the apartheid period are mentioned, but psychiatrists are portrayed as having had to work under very difficult circumstances and as having valiantly stood up for human rights during the apartheid regime. On the other hand, there are scholars who argue that from its inception in South Africa, mental health care has been, and continues to be, inextricably bound up with regimes of power (Butchart 1998; Hook 2012; Jones 2012; Swartz 1995a, b, 1999). This line of thinking, which accords with broader histories of health care and the social sciences in South Africa (see, for example, Dubow 1995; Marks 1994; Phillips 2012), argues that mental health care has had a role not only in alleviating suffering, but also in reproducing dominant ideas about social relationships. Swartz (1995a, b, 1999) shows, for example, that from its earliest beginnings in South African mental health care was closely aligned with the colonial project, and with limited preoccupations of race, class and gender. Services were segregated, and what was deemed to be mentally healthy accorded with a dominant colonial view of the way the world was organised. Mental health care and psychiatry, as in other parts of the world, contributed to a view of mental health and disorder which provided an implicit scientific justification for the naturalisation of categories of segregation, which had no true scientific basis (Dubow 1995; Swartz 1998). The links between early ideas about insanity and those about race are inscribed in the history of Robben Island, a small island off Cape Town. In the nineteenth century it was used as an asylum for lunatics, lepers and the feeble-minded; in the twentieth, it became a prison for anti-apartheid activists, the most famous of whom was Nelson Mandela (Deacon 1995).

Following the Anglo-Boer wars at the turn of the twentieth century, the Union of South Africa was established in 1910, a union between formerly British and Boer colonies. This union was built on suffrage for white people, and a major common interest which concerned former adversaries was the economic empowerment of white South Africans. A landmark conference on the 'poor white' problem – the Carnegie Commission of the 1930s – contained a substantial contribution from theorists interested in psychological issues, notably Wilcocks and Malherbe (Seekings 2006, 2008). Part of Wilcocks's solution to the poor white problem was to minimise miscegenation between whites and other South Africans. He also believed that mental health practitioners like psychologists had an important part to play in the uplift of the white population, a view shared by his supervisee, H. F. Verwoerd. Verwoerd was to become the South African prime minister most closely associated with implementing the apartheid project. It is not entirely coincidental that he was also associated with the development of psychology and social work as professions in the country (Cooper and Nicholas 2012).

During the apartheid era, and especially after Sharpeville and the Soweto uprising in 1976, large numbers of South African mental health professionals left the country, some at the behest of the authorities, but more left by choice. Many were concerned about the political violence and repression in the country. South African psychologists and psychiatrists took up leadership roles in mental health in other countries – for example Joseph Wolpe (a psychiatrist) and Arnold Lazarus (a psychologist) were central to the development of behaviour therapy and its offshoots in the USA, and the Tavistock Clinic in the UK. This clinic is well known for its psychodynamic approaches. The clinic had (and continues to have) major influences on the staff of ex-South Africans, including Anton Obholzer, a psychiatrist who became Chief Executive of the Tavistock.

Violence, Mental Health and the 'Struggle' Years in South Africa

From the early 1980s onward, and through a period of increased uprising and state violence which ultimately led to the release of Nelson Mandela in 1990, and to the downfall of apartheid, mental health professionals began to organise themselves overtly in opposition to the apartheid regime. NAMDA (the National Medical and Dental Association), focussing on alleviating the deleterious effects of apartheid on health in South Africa was established in 1982. In 1983, the Organization for Appropriate Social Services in South Africa (OASSSA) was formed with similar aims, but focussed specifically on mental health issues. There were a host of similar bodies during this period, including the Psychology and Apartheid Group, the Detention Treatment Team, the South African Health and Social Services Organizations, and many alliances and disputes across the various groupings. But all agreed that apartheid, with its history of dispossession, abuse, corruption, and killings, was implicated in poor health (and mental health) outcomes and that all those who were serious about health and mental health issues should therefore be working to end apartheid.

These events mark a substantial shift in how mental health was viewed in relation to apartheid. In the late 1970s, a mission of the American Psychiatric Association had visited South Africa and reported on vastly inferior treatment for black South Africans in psychiatric care when compared with their white compatriots. The response from organised psychiatry at the time was rather defensive. The fact that blacks received inferior food (from a nutritional point of view) to that given to white patients, for example, was defended on ‘cultural’ grounds – with the argument that black people preferred certain (nutritionally inferior) foods over others, for cultural reasons (Swartz 1987). Similar reasons were given for the provision of inferior mental health services for black people overall – it was argued that black people have cultural beliefs in conflict with those of psychiatry, and that they therefore prefer to use indigenous and religious healing services to western biomedical services. There may be some truth to arguments about cultural difference in preference for care, but it was disingenuous to claim that people were choosing certain services over others when western mental health services were simply not available or accessible to most of the population (Swartz 1986). Against this background, a paper by Dawes (1985) published in the *South African Journal of Psychology*, the official psychology journal in the country, and dealing with psychology’s complicity in apartheid, was widely viewed as a broadside against the mental health establishment (see, for example, Biesheuvel 1987). At the heart of the debates between those who, like Dawes, argued for political engagement by mental health workers, and those who, like Biesheuvel, took what they saw as a more neutral position, were questions about the nature of science. Progressive mental health workers (as they styled themselves) argued that so-called scientific objectivity on behalf of professionals masked a *de facto* collusion with the powers that be, and that the idea of objectivity and even-handedness, especially in an iniquitous and grossly unequal society, was a myth.

Central to the way in which the progressive mental health movement presented itself at that time had to do with how violence was understood and engaged with by mental health workers. I was part of that movement, as a psychologist and academic, and this personal history of involvement is central to the way I consider the issues in this chapter (see, for example, Swartz and Levett 1989; Swartz et al. 1990). During the 1980s, there was widespread (and legitimate) concern about the impact largely of state violence on the lives and development of ordinary South Africans. It is not by chance that the concerns expressed tended to focus on the question of the impact of violence on children, for a number of reasons. First, children were at the forefront of much of the protest action in South Africa (the 1976 Soweto uprisings, for example, were triggered by schoolchildren protesting about being taught through the medium of Afrikaans). Second, it was commonly argued that young children could not be motivated by organised evil intention against the government of the day – as 'innocents' caught up in ubiquitous violence, they demanded special attention and protection. There was widespread concern in the South African media that children, through their political involvement in protest action and through their being brutalised, beaten and incarcerated by the apartheid regime, would be irrevocably damaged and unable to grow into responsible adults capable of playing a useful role in society. These arguments were by and large rebutted by progressive mental health workers (Swartz and Levett 1989), who argued that because of the context of political and community support in favour of political change in the country, children's participation in political violence could be seen as socially sanctioned, socially appropriate, and worlds away from having the likely developmental consequences of delinquency. Where delinquency involved the flouting of social norms, the argument went, involvement by children in legitimate political struggles was in effect a prosocial behaviour and unlikely to have the same damaging effects. This argument did not disavow the possibility of negative developmental consequences of child participation in violence, but believed that there was a suspect ideological basis to the view that the consequences of this involvement would inevitably be damaging to a generation of South Africans. The implied rider to the 'damage' argument was that for their future mental health, children should no longer be involved in playing their central part in fighting for a new and democratic order in South Africa.

Mental Health and the Truth and Reconciliation Commission Process

With parts of the country literally in flames, successive failed states of emergency, insurgency at the borders, increasing international isolation, and a rapidly failing economy, the apartheid regime was forced into talks with the majority opposition, represented in the main by the African National Congress, led by Nelson Mandela. Part of the compromise of the transition (a compromise preferable to ongoing civil war, many would argue) was the formation of the Truth and Reconciliation Commission (TRC). The TRC had 3 central functions: to make the truth about South Africa's past known to the country; *to give a voice to victims of human rights violations and to provide reparations; and to allow for an amnesty process in the context of full disclosure of violations perpetrated with demonstrable political motives* (Swartz and Drennan 2000). Led by a prominent anti-apartheid theologian and Nobel Peace Prize awardee, Archbishop Desmond Tutu, the TRC discursively and theatrically positioned itself at the intersection of 2 powerful discourses – the

Christian language of confession and forgiveness, and the Freudian notion that through speaking about the unspeakable, individuals (and by implication the nation) can be healed. Psychology and psychologists were prominent players both in the function of the TRC itself and in discussions about its achievements subsequently (Swartz and Drennan 2000). As has become increasingly clear, the TRC compromise was extremely costly – perpetrators of appalling violations, including murder, and who confessed to and demonstrated the political motivation behind their crimes, continue to live in comfort and wealth, while most South Africans systematically impoverished by centuries of oppression continue to lead miserable and precarious lives.

One issue central to psychological concerns about the TRC, is the question of the relationship between individual suffering and healing, and the healing and suffering of the nation. A number of apartheid victims gave testimony at the TRC, and some of this testimony was broadcasted around the world. This testimony in all probability made an emotional impact on many South Africans, including on many who had supported apartheid, and there is a strong argument that this collective soul-searching and sharing of pain under the exceptionally generous and inclusive leadership of Archbishop Tutu was good for the country. But there are questions about whether giving this testimony was good for those who gave it. An important post-apartheid text on the TRC, co-authored by a prominent psychologist, Kopano Ratele (Krog et al. 2009), explores the testimony of one person who participated in the TRC. The authors demonstrate in exquisite and excruciating detail the ongoing abjection of the lives of the person who gave testimony and her family. They also show how gravely the woman in question was in fact misunderstood and misinterpreted through the TRC process, raising the troubling question of the extent to which process of public expiation and catharsis may have in fact re-traumatized those giving evidence while providing a spectacle which may have been helpful to national healing and reconciliation. The Krog et al. (2009) book stands in some contrast to an internationally acclaimed volume by South African psychologist, Pumla Gobodo Madikizela (2003). Gobodo-Madikizela served on the Human Rights Violations Committee of the TRC and as part of her work she conducted some interviews with Eugene de Kock, known in South Africa as Prime Evil, and one of the apartheid regime's most successful undercover operatives and killers. In her remarkable account of her relationship with de Kock, Gobodo-Madikizela, a black South African, makes the argument that forgiveness and reconciliation are essential not only for the political future of the country, but also for individuals who have been wronged. (Gobodo-Madikizela continues this line of work in her current role as Professor of Reconciliation Studies at the University of the Free State in South Africa.)

Gobodo-Madikizela's work, and that of those who do similar reconciliation work in South Africa, is certainly not naïve to the enormous challenges the country faces, but it is probably less dystopian than the work of many others, who believe that the price of a peaceful transition, a transition without justice and without retribution, may have been too high for the country. Concern in psychology and psychiatry for the way in which the testimonies of the weak may have been appropriated into broader discourses of healing of the body politic, leading to a further (unintentional) abuse and misrecognition of the weak, remains. These concerns (which form part of the fabric of the Krog et al. 2009 volume) about secondary traumatization of victims in service of the greater public good echoes some of the concerns about the way in which mental health issues were dealt with during the struggle years. When I read our book about children and violence during apartheid (Swartz and Levett 1989), I have no doubt that colleagues and I were making interventions which were important and useful concerning the social role of mental health professions and practice in a violent and rapidly changing society. When I see the evidence around me today of widespread criminality and alienation amongst the generation who were children and youths at the time of the struggle years, and their children, I wonder whether, in legitimate opposition to "pathologizing" discourses about children and violence, I and my colleagues over-stated protective factors. The fact is that the 'struggle generation' has not grown up unscarred by past and current injustices. Political involvement, and working for the common good under conditions of oppression may well have been protective factors for some, but they have not averted many of the serious difficulties South African society faces today.

Violence and Mental Health Practice in Contemporary South Africa

South Africa is one of the most violent countries in the world (McLean and Walker 2012), with patterns of violence having changed from political violence to widespread criminal violence and victimization. Gender-based violence is a particular concern, with a substantial proportion of South African young men living in constrained circumstances admitting to being perpetrators (Dartnall and Jewkes 2013; Jewkes et al. 2012), a factor which is of concern in its own right, but which also fuels the HIV/AIDS epidemic. In addition, violent protests against low wages or poor delivery of services (such as the Marikana protests which ended in tragedy) are becoming more common (Jürgens et al. 2014). Given the popular view with funders and international agencies, that with the apartheid having ended, South Africa is no longer an 'abnormal' society but a robust (and relatively wealthy) democracy able to attend to its own citizen's needs, international funding focussing on the mental health and well-being of victims of violence is increasingly difficult to access (Rupcic 2013). At the time of writing, for example, Cape Town's major shelter for women and children subjected to violence by men in the home, is in some danger of closing its doors permanently.

Conclusion

There are 2 contrasting master narratives about South Africa which affect contemporary mental health practice. The first of these is the ‘miracle’ narrative – the story that South Africa was saved from an apocalyptic conflagration at the 11th hour, largely through the vision and majestic foresight of Nelson Mandela (and, some would argue, more controversially, also through the contribution of his white counterpart, F W de Klerk). The second narrative is that the problems of South Africa are so deep-rooted, so embedded in a long and continuing history of corruption and greed, formerly on the part of whites but now largely on the part of black people in power, that the problems are intractable. Both these narratives have elements of truth; both overstate and grossly oversimplify the case. But each narrative has an impact on the way mental health is practised. The idealised view of South Africa as a beacon for hope for all other traumatised societies may paradoxically decrease funding for and focus on pressing mental health issues in this country. The view of a South Africa in decline may encourage South African practitioners to retreat from broader social engagement to a narrower (but legitimate) focus on clinical work with a small group of people.

There is probably no question that the groundswell of political engagement by mental health practitioners which was a prominent feature during the 1980s and early 1990s has begun to abate. This said, there are new developments which hold considerable promise for the future. South Africans have been central to the establishment of global mental health as a vibrant international discipline (Chisholm et al. 2007; Flisher et al. 2007; Petersen et al. 2012; Tomlinson and Lund 2012). Within this overarching framework a wide range of evaluated interventions (some of them randomised controlled trials) have been implemented on topics which have bearing on issues of violence, often at the interface with HIV/AIDS (see for example Bell et al. 2008; Bhana et al. 2010; Cooper et al. 2009; Rotheram-Borus et al. 2011). Much more is now known about interfaces between sexual violence, substance use and HIV (Meade et al. 2012), and about issues of sexual violence for high-risk groups such as people with disabilities (Mall and Swartz 2012), for example.

Perhaps the most painful lesson, though, for mental health professionals in South Africa from the apartheid period to today, is that when there is a clear enemy (the apartheid state), it is far easier to know where one stands on issues of violence and mental health. Progressive mental health workers at the time of Sharpeville were absolutely clear that an important part of the solution to the problem would be the fall of apartheid and the advent of democracy. In the age of Marikana, it is just as clear that violence and abuse is unacceptable. How one works for appropriate, sustainable and meaningful change is much less clear.

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Chapter 18
Evidence-Based Interventions for Violent Behavior in Children and Adolescents

Sajid Humayun and Stephen Scott

Introduction

There are very few evidence-based interventions specifically for violent behavior in children and adolescents. Given that violent individuals do not typically limit their offences to violent acts (Polaschek 2010) this is perhaps not surprising. However, interventions for antisocial behaviour problems, in particular conduct disorder (CD) and delinquency, target aggressive and violent behavior alongside other forms of antisocial behavior. In some cases these interventions have shown some efficacy in violence reduction. Therefore, the majority of this chapter will focus on the etiology and treatment of antisocial behavior in childhood and of delinquency in adolescence, rather than limit itself to the very few interventions that focus on violent behavior alone. However, it will conclude by considering some of the particular challenges faced when treating very violent individuals. Violent individuals are also typically male so for the sake of convenience we will use the male pronoun.

Factors Influencing the Development of Antisocial and Violent Behavior

There is a great deal of research describing factors influencing antisocial and violent behavior (Lahey et al. 2003; Loeber et al. 2005; Rutter et al. 1998), so a sensible starting point when deciding on interventions is to consider the main causal

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factors and processes, and then design interventions around them. However, in practice many other considerations have shaped interventions, from the desire to punish violent youths, to making use of what is currently available at relatively low cost. These different motives may conflict with what is effective for children and young people and what works in reducing the damage they cause to society. One of the best examples of this is shock incarceration in military style boot camps, which although recommended in the 1990s by the US Office of Juvenile Justice and Delinquency Prevention, and satisfying the desire for retribution and somewhat lower running costs, has repeatedly proven at least ineffective, and often positively harmful (Benda 2005; this is discussed in more detail later). Another intervention is the use of medication. No pharmacological intervention is currently approved specifically for conduct disorder or antisocial behavior. Nevertheless, medication is used relatively frequently and increasingly for this behavior in the USA (Steiner et al. 2003; Turgay 2004). In the UK, medication would not generally be supported as good practice because there is very little evidence of effectiveness, particularly for children without comorbid ADHD.

Whilst risk factors are present in multiple domains (see Murray and Farrington 2010, for a review), recent research indicates that there are likely to be 3 distinct pathways to antisocial and violent behavior, each with its own cluster of risk factors (Pardini and Frick 2013).

First, the timing of onset of antisocial behavior has shown to delineate groups of individuals, such that those with early onset of antisocial behavior (before age 10) appear to constitute a separate and more severe group to those whose antisocial behavior begins in adolescence. Individuals with early onset antisocial behavior are more likely to exhibit early hyperactivity and oppositional behavior (Moffitt 2006), tend to come from families who use harsh and inconsistent parenting practices (Odgers et al. 2008), and are at higher risk of lifetime criminality (Farrington 2005; Odgers et al. 2008) and life failure (Piquero et al. 2010). They are at substantially greater risk of delinquent acts in adolescence and continued violence and offending into adulthood and many develop Antisocial Personality Disorder (ASPD), a disorder synonymous with psychopathic traits and violence (Loeber et al. 2005; Seagrave and Grisso 2002; Soderstrom et al. 2004; Sourander et al. 2006).

Second, children with callous-unemotional (CU) traits appear to be an etiologically distinct group with low empathy and high fearlessness. These are children who are cruel to animals, have difficulty making friends and engage in acts of premeditated violence. CU traits have higher genetic heritability than conduct disorder (Viding et al. 2005), and are associated with a different pattern of neurocognitive deficits such as reduced amygdala function (Kiehl et al. 2001). They are also strongly associated with the development of ASPD and psychopathy (Feilhauer and Cima 2012; Frick and White 2008) and are predictive of criminal offending in early adulthood (Kahn et al. 2013). The presence of CU traits in antisocial children has important treatment implications. Studies have shown that these children are more resistant to punishment and are more difficult to treat (Hawes and Dadds 2005). However, it is not the case that they cannot benefit from treatment (see Waller et al. 2013, for a systematic review).

Third, a number of studies have begun to support a causal pathway associated with poor regulation of anger. These are children who misinterpret ambiguous social cues as threatening which may lead them to respond in an aggressive and violent manner (De Castro et al. 2002). There is often a history of harsh discipline in this group (Pasalich et al. 2011). However, the association between harsh discipline and antisocial behavior seems to be most pronounced amongst those with a genetic susceptibility (Taylor and Kim-Cohen 2007).

The relationship between parenting and the development of violent and antisocial behavior is a particularly important one in informing intervention approaches. Family factors have repeatedly been shown to be associated with childhood antisocial behaviour and delinquency. The finding that parent–child relationship quality is associated with aggressive and violent behavior, conduct disorder and delinquency is one of the most widely reported in the literature, repeatedly found in large-scale epidemiological investigations, intensive clinical investigations and naturalistic studies of diverse samples using a mixture of methods (e.g. Denham et al. 2000). In particular, parenting styles characterised by low warmth and involvement, high hostility, inconsistent and harsh discipline, and poor supervision have been found to be associated with violent and antisocial behavior (Stouthamer-Loeber et al. 2002). These are not just a reaction to child behavior, they have a causal role too (Patterson 2002; Snyder and Stoolmiller 2002), and are modifiable (see below). More distal parental characteristics such as having a criminal record and alcoholism may be impossible or hard to treat, but the mechanism through which they increase the risk of delinquency and violence is likely to be partly through parenting style and values (Rutter and Quinton 1987), which may be modifiable.

Beyond the family, peers play an important role through 2 mechanisms, peer rejection and association with delinquent peers (Gifford-Smith et al. 2005). Again, both of these are potentially modifiable. A particularly harmful aspect of the latter is membership of a gang (Gatti et al. 2005). The neighbourhood a youth lives in can also exacerbate delinquent tendencies, with low ties to the neighbourhood, poor social control of behaviour, and exposure to risky activities such as drug–taking all contributing (Murray and Farrington 2010).

Implications for Intervention

Social learning theory proponents (e.g. Patterson 1982) suggest that the immediate environment is crucial in engendering antisocial and violent behaviour, with the responses to delinquent behaviour provided by parents, and then later peers, shaping delinquency. By ignoring prosocial behaviour, and inadvertently rewarding aggression (e.g. by giving in to threats or tantrums), parents and peers reinforce violent behaviour. This has formed the basis of parenting programmes for antisocial behaviour that try to change these contingent responses; some peer-relationship programmes also take this approach (Frankel and Myatt 2003).

With regard to the indivdual's psychological level, different theories lead to different intervention approaches. For example, cognitive theory has led to cognitive therapies that concentrate on the way the youth perceives threats and cues. On the other hand, if the causal theory postulates that the fundamental problem is one of emotional over-reactivity, then teaching youth to become more aware of their own emotions and develop strategies to control these emotions may be tried, as in anger management programmes. Likewise, where a deficit in empathy has been postulated, "restorative justice" programmes have attempted to reduce recidivism by confronting perpetrators with their victims, so they have sympathy for what they have done. Each of these treatment approaches is discussed below.

Whilst evidence is accruing for neurobiological risks, rather few findings on these mechanisms have led to treatment approaches so far. As previously mentioned, there is no well-validated drug treatment for antisocial and violent behaviour so the use of drug therapy is not based on sound evidence. On the other hand, the large body of evidence on the relationship between early-onset of conduct problems and juvenile delinquency suggests that early prevention may be sensible (Loeber and Farrington 2000).

It is important to note that intervention is not only about the removal of risks for antisocial and violent behaviour but also about enhancing protective factors. For example, this could involve encouraging youth to engage in an activity or hobby in which they can take pride and which would therefore improve their self-esteem.

Further, risk factors do not appear to operate in a purely additive way, with a linear increase in risk of conduct problems or delinquency per each additional risk factor. Instead, a larger number of risk factors appear to confer a disproportionately higher risk (Appleyard et al. 2005; Rutter 1979; Stattin and Magnusson 1996). The implications of this for intervention would appear to be that several risk factors need to be tackled in order for interventions to be successful. It follows then that children and young people should be assessed for these risk and protective factors and interventions tailored accordingly.

General Intervention Principles

Rates of drop-out from treatment for families of children with conduct problems are high – often up to 60.0 % (Kazdin 1996). Practical measures such as helping with travel and providing childcare are all likely to facilitate retention. Forming a good alliance with the family is especially important. Prinz and Miller (1994) showed that, for example, showing parents that the therapist clearly understood their viewpoint, led to increased attendance at treatment sessions. Once engaged, the quality of the therapist's alliance with the family affects treatment success. In one meta-analysis it accounted for 15.0 % of the variance in outcome (Shirk and Karver 2003).

If possible, interventions should specifically address each context. For example, improvements in the home arising from a successful parent training programme will not necessarily lead to less violent and antisocial behavior at school (Scott 2002). If the child has pervasive problems including fighting with peers, individual work on anger management and social skills should be added. Typically health services have insufficient resources to treat all antisocial behavior in childhood, so the mental health professional must decide whether other agencies can be involved. A number of voluntary-sector bodies now provide parent training, and schools may be able to set up suitable behavioral programmes.

Identifying the strengths of both the child and the family is crucial. This helps engagement, and increases the chances of effective treatment. Encouraging prosocial activities may lead to increased achievements, heightened self-esteem and greater hope for the future. Treatment involves more than the reduction of violent and antisocial behavior – positive behaviors need to be taught too. Specific intellectual disabilities such as reading retardation, which is particularly common in these children, need to be addressed, as do more general difficulties such as planning homework.

Making use of existing guidelines is important. The American Academy of Child and Adolescent Psychiatry (Bernstein and Shaw 1997) has drawn up sensible practice parameters for the assessment and treatment of conduct disorder, and the UK National Institute for Health and Clinical Excellence (National Institute of Health and Clinical Excellence 2006) has published an appraisal of the clinical efficacy and cost-effectiveness of parent training programmes. Furthermore, new NICE guidelines on the treatment of conduct disorder have recently been published (National Collaborating Centre for Mental Health 2013).

Most of the interventions described below are intended for out-patient or community settings. Psychiatric hospitalization is very rarely necessary: there is no evidence that in-patient admissions lead to gains that are maintained after the child goes home.

When treating violent and antisocial adolescents, a number of additional concerns need to be kept in mind (for more details see McGuire and Priestley 1995). First, the intensity of the intervention should match the extent of the risk posed by the young person. Second, there should be a focus on active collaboration, which is not too didactic or unstructured. Third, there should be close integration with the community from which the young person comes. Fourth, there should be an emphasis on behavioral or cognitive approaches. Fifth, the programmes should be delivered with high quality and the staff should be trained adequately and monitored. Finally, there should be a focus on the proximal causes of violent and antisocial behavior rather than distal causes. In other words, the programmes should focus on peer groups, promoting current family communication, and enhancing self-management and problem-solving skills. There should not be a focus on early childhood or other distal causes of delinquency.

All of the reviews suggest that there are a number of promising targets for treatment programmes for adolescents, which include antisocial thoughts, antisocial peer associations, promotion of family communication and affection, promotion of family supervision, identification of positive role models, improving problem-solving skills, reducing chemical dependencies, provision of adequate living conditions, and helping the young offender to identify high risk situations for antisocial behaviors. Conversely, the systematic reviews have also suggested a number of approaches that are unlikely to be promising. For instance, improving self-esteem without reducing antisocial cognitions is unlikely to be of value. Similarly, it is unlikely that a focus on emotional symptoms that is not clearly linked to criminal conduct will be of great benefit.

Programmes for Children

Programmes Based on Social Learning Theory

These programmes have evolved for more than 40 years and there is a large evidence base. Most are aimed at antisocial behavior as their proximal target outcome, but also aim to reduce violent behavior in children and most take the form of parent management programmes. The content and delivery of a typical programme is shown in Box 18.1 and described below. Most basic programmes take 8–12 sessions, lasting 1.5–2 h each. Full accounts of programmes are given by the developers (e.g. Markie-Dadds and Sanders 2006; Webster-Stratton and Reid 2003).

Box 18.1: Features of Effective Parenting Programmes Based on Social Learning Theory

Content

- Structured sequence of topics, introduced in set order during 10–12 weeks
- Curriculum includes play, praise, rewards, setting limits and discipline
- Parenting seen as a set of skills to be deployed in the relationship
- Emphasis on promoting sociable, self-reliant child behaviour and calm parenting
- Constant reference to parent's own experience and predicament
- Theoretical basis informed by extensive empirical research and made explicit
- Plentiful practice, either live or role-played during sessions
- Homework set to promote generalization
- Accurate but encouraging feedback given to parent at each stage
- Self-reliance prompted (e.g. through giving parents tip sheets or book)
- Emphasis on parents' own thoughts and feelings varies from little to considerable

(continued)

Box 18.1 (continued)

- Detailed manual available to enable replicability

Delivery
- Strong efforts made to engage parents (e.g. home visits if necessary)
- Collaborative approach, typically acknowledging parents' feelings and beliefs
- Difficulties normalized, humour and fun encouraged
- Parents supported to practise new approaches during session and through homework
- Parent and child can be seen together, or parents only seen in some group programmes
- Creche, good-quality refreshments, and transport provided if necessary
- Therapists supervised regularly to ensure adherence and to develop skills

Format of a Typical Social Learning Parenting Programme

Teaching a Child-Centered Approach

The first session covers play. Parents are asked to follow the child's lead rather than impose their own ideas. Instead of giving directions, teaching and asking questions during play, parents are instructed simply to give a running commentary on their child's actions. As soon as the parent complies, the practitioner gives feedback. After 10–15 min, this directly supervised play ends and the parent is 'debriefed' for half an hour or more alone with the clinician.

The second session involves elaboration of play skills. The previous week's 'homework' of playing at home is discussed with the parent in considerable detail. Often there are practical reasons for not doing it ('I have to look after the other children, I've got no help') and parents are then encouraged to solve the problem and find ways around the difficulty. For some parents there may be emotional blocks ('it feels wrong – no one ever played with me as a child'), which need to be overcome before they feel able to practice the homework.

After this discussion, live practice with the child is carried out. This time the parent is encouraged to go beyond describing the child's behavior and to make comments describing the child's likely mood state (e.g. 'you're really trying hard making that tower', or 'that puzzle is making you really fed up'). This process has benefits for both the parent and the child. The parent gets better at observing the fine details of the child's behavior, which makes them more sensitive to the child's mood. The child gradually gets better at understanding and labeling his/her own emotional states.

Increasing Desirable Child Behavior

Praise and rewards are covered here. The parent is required to praise their child for lots of simple everyday behaviors such as playing quietly on their own, eating nicely, and so on. In this way the frequency of desired behavior increases. However, many parents find this difficult. Usually, with directly coached practice, praise becomes easier. Later sessions go through the use of reward charts.

Imposing Clear Commands

A hallmark of ineffective parenting is a continuing stream of ineffectual, nagging demands for the child to do something. Parents need to be taught to reduce the number of demands, but make them much more authoritative. This is done through altering both the manner in which they are given, and what is said. The manner should be forceful. The emotional tone should be calm, without shouting and criticism. The content should be phrased directly ('I want you to ... '). It should be specific ('keep the sand in the box') rather than vague ('be tidy'). It should be simple (one action at a time, not a chain of orders), and performable immediately. Commands should be phrased as what the parent does want the child to do, not as what the child should stop doing ('please speak quietly' rather than 'stop shouting'). Instead of threatening the child with vague, dire consequences ('you're going to be sorry you did that'), 'when–then' commands should be given ('when you've laid the table, then you can watch television').

Reducing Undesirable Child Behavior

Consequences for disobedience should be applied as soon as possible. They must always be followed through: children quickly learn to calculate the probability that consequences will be applied, and if a sanction is given only every third occasion, a child is being taught he/she can misbehave the rest of the time. Simple logical consequences should be devised and enforced for everyday situations (e.g. if a child refuses to eat dinner, there will be no pudding). The consequences should 'fit the crime', should not be punitive, and should not be long term (e.g. no bike riding for a month), as this will lead to a sense of hopelessness in the child, who may see no point in behaving well if it seems there is nothing to gain. Consistency of enforcement is central.

Time-out from positive reinforcement remains the final 'big one' as a sanction for unacceptable behavior. The point here is to put the child in a place away from a reasonably pleasant context. Parents must resist responding to taunts and cries from the child during time-out, as this will reinforce the child by giving attention. Time-out provides a break for the adult to calm down also.

Effectiveness

Behavioral parent training is the most extensively studied treatment for children's conduct problems, and there is considerable empirical support for its effectiveness (Weisz et al. 2004). Several programmes are considered well-established according to American Psychological Association criteria, after multiple randomized trials (e.g. Patterson 1982; Webster-Stratton et al. 2001) and replications by independent research groups (e.g. Scott et al. 2001). Randomized trials have shown the effectiveness of Triple Parenting Program (e.g. Bor et al. 2002; Sanders et al. 2000), and there is at least one independent replication supporting the Parent-Child Interaction Therapy model (Nixon et al. 2003). These studies suggest that behavioral parent training leads to short-term reductions in antisocial behavior. Follow-up studies suggest enduring effects at up to 6 years after treatment (Hood and Eyberg 2003; Reid et al. 2003). It should be noted that the wider terms 'parenting support' and 'parenting programmes' cover a broad range of approaches, many of which are not evidence-based and therefore cannot be advocated.

Cognitive-Behavioral and Social Skills Programmes

The most common targets of cognitive–behavioral and social skills therapies for children are aggressive behavior, social interactions, self-evaluation and emotional dysregulation (see Box 18.2 for examples of good practice). These interventions may be delivered in individual or group therapy. Although groups offer several advantages (e.g. opportunities to practice peer interactions), they may have potentially harmful effects (Dishion et al. 1999). These appear to be particularly common in larger groups and those with inadequate therapist supervision, where children learn deviant behavior from their peers and encourage each other to act antisocially.

In 2 randomized control trials (RCTs), Kazdin et al. (1987, 1989) found that Problem-Solving Skills Training results in significant decrease in deviant behavior and increase in prosocial behavior. Outcomes were superior to a client-centred, relationship-based treatment and were maintained at 1-year follow-up. The addition of real-life practice and a parent training component both enhanced outcomes. Evaluations of the Coping Power Program found reductions in aggression and substance use, and improved social competence (e.g. Lochman and Wells 2002). Treatment effects were maintained at 1-year, particularly for those whose parents also received parent training (Lochman and Wells 2004).

Box 18.2: Examples of Good Practice

Parent Management Training

- Helping the Non-compliant Child programme (McMahon and Forehand, 2003)
- Parent–Child Interaction Therapy (PCIT; Eyberg 1988)
- Incredible Years Programme (Webster-Stratton 1981)
- Positive Parenting Programme (Triple P; Sanders et al. 2000)

Child Therapies

- Problem-solving Skills Training with in vivo practice (PSST–P; Kazdin 1996)
- Coping Power Program (Lochman and Wells 2002)

School Interventions

At a universal level, Social and Emotional Learning (SEL) programmes aim to enable children to acquire core competencies to recognize and manage emotions, set and achieve positive goals, appreciate the perspectives of others, establish and maintain positive relationships, make responsible decisions, and handle interpersonal situations constructively. The proximal goals of SEL programmes are to foster the development of 5 interrelated sets of cognitive, affective, and behavioral competencies: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (Durlak et al. 2011). These competencies, in turn, should provide a foundation for better adjustment and academic performance as reflected in more positive social behaviours, fewer conduct problems, less emotional distress, and improved test scores and grades. Over time, mastering SEL competencies should result in a developmental progression that leads to a shift from being predominantly controlled by external factors to acting increasingly in accord with internalized beliefs and values, caring and concern for others, making good decisions, and taking responsibility for one’s choices and behaviors.

Probably the best researched and most widely implemented formal SEL programmes is Promoting Alternative Thinking Strategies (PATHS) (Domitrovich et al. 2007). This is a programme where children are encouraged through stories and role-play to identify their emotions and how to cope with difficult situations in a problem-solving way. It is taught by the children’s regular teachers in weekly lessons throughout the school year. Results of trials suggest that after exposure to PATHS, intervention children had greater skills in recognizing their own emotions and those of others and were rated by parents and teachers as more socially competent compared to peers. Further, teachers rated intervention children as less socially withdrawn at the end of the school year compared to controls.

There have been many RCTs of a range of SEL programmes, almost all in the USA. A meta-analysis of 213 school-based, universal (SEL) programmes involving 270,034 primary and secondary school pupils found that compared to controls, SEL participants demonstrated significantly improved social and emotional skills, attitudes, behavior, and academic performance that reflected an 11-percentile-point gain in achievement (Durlak et al. 2011). Such findings are encouraging but the huge problem is whether such demonstration projects can be translated into everyday life. There was widespread adoption in schools in England of Social and Emotional Aspects of Learning (SEAL) programmes. The evaluation in primary schools of the small group, selective-targeted aspect showed small effect-sizes in some of the measured outcomes, with increases in pupil-rated overall emotional literacy; increases in staff-rated self-regulation, decreases in staff-rated peer problems, and increases in pupil-rated empathy, self-regulation, social skills and overall emotional literacy (Humphrey et al. 2008). Thus while these approaches appear to be promising, further evaluations are needed.

Programmes for Adolescents

In adolescence somewhat different approaches are necessary, with more emphasis on negotiation and close supervision when the young person is out of the home. Also, whilst many components of programmes based on social learning theory are incorporated, additional elements may be required. In particular, there may need to be more of a focus on the wider systems around the youth, be they the wider family, school or peer networks. Thus interventions tend to be 1 of 3 types: interventions with individual youth, family-based interventions or multicomponent interventions.

Psychological Interventions for Individual Youth

On theoretical grounds, working with youths to control anger and promote more sociable interactions would seem a plausible approach. A number of programmes exist, broadly-based on cognitive behavioral principles. Elements include: (1) attributional retraining, (2) anger management, (3) social problem-solving, (4) social skills training, and (5) helping the youth set targets for desirable behavior and negotiate rewards for achieving them. Whilst each of these elements can be separated out on its own, most modern programmes incorporate a number of these themes blended together.

Attributional retraining helps correct the cognitive distortions identified by Dodge (1993) whereby the youths tend to perceive threat and hostile intent even in neutral scenarios, and work is done to help understand others' points of view. The anger management aspect usually lasts several sessions and provides techniques to slow down instant angry arousal. Early therapeutic sessions involve assisting the children to recognize their anger in difficult interpersonal encounters, identify the triggers, and take the perspective of the other person including recognizing whether their intentions are truly hostile. The next stage is to practice coping techniques to reduce anger arousal and avoid impulsive, rage-filled responses. Social problem-solving programmes follow classic lines of (1) defining the problem, (2) analyzing the intentions of the other party, (3) generating a range of solutions, (4) evaluating them, (5) selecting the best and putting it into action, then (6) reviewing how well it worked. The social skills element involves repeated practice in role plays and in real life, whereby the youth practices conversations, asking teachers for guidance, expressing disappointment, declining drugs without getting angry, and so on. The target setting is usually agreed in negotiation with teachers or parents, and involves starting with small, achievable goals with strong immediate rewards to promote success.

Perhaps the best known preventive anger management programme is the Coping Power Programme (Larson and Lochman 2011). In line with many CBT interventions, the steps for the young person are: (1) identify the problem and their emotional reaction to it; (2) analyze the possible intentions of the other party; (3) come up with potential solutions to the conflict; (4) analyze the short-and long-term consequences of each solution; (5) choose and enact a plan; and (6) evaluate the effectiveness of the plan as it was implemented and learn the lessons from this.

Evaluations by the programme's developer suggest short-term effectiveness that is maintained at 2-year follow-up and (in a Dutch replication) that led to reduced substance misuse 4 years later (Larson and Lochman 2011).

A similar programme, Problem-Solving Skills Training (PSST), which lasts, 22 weeks was found to be effective in an RCT with inpatients with severe conduct problems (Kazdin et al. 1992), but now needs independent replication. More generally, a meta-analysis of RCTs of social skills training confirmed its usefulness, although studies with larger samples led to smaller effect-sizes (Losel and Beelmann 2003). Likewise, a meta-analysis of CBT with offenders found that it worked, and better effects were obtained for higher risk offenders, higher quality treatment implementation, and CBT programmes that included anger control and interpersonal problem-solving but not victim impact or behavior modification components (Landenberger and Lipsey 2005). Whilst there have been attempts to use CBT programmes to reduce gang membership, it is not currently possible to assess their effectiveness due to the lack of high quality evaluations (Fisher et al. 2008).

Limitations of anger management programmes include: quite a few young people with conduct disorders will not engage in them; there are few practitioners with the necessary skills available; and some young people can demonstrate the necessary steps in the clinic situation, but in real-life provocations still cannot control their angry outbursts.

More directly within the justice system, individual offenders have had to take part in victim-offender mediation sessions, so-called “restorative justice” (Latimer et al. 2005). A meta-analysis of 15 studies concluded the approach was effective, with a rate of re-offending of 70.0 % of that of controls (Nugent et al. 2003). Similarly, a meta-analysis of "reasoning and rehabilitation" programmes by Tong and Farrington (2006) concluded that these reduced offending by 14.0 %. However, a more recent meta-analysis of restorative justice failed to find a reduction in offending or victim satisfaction (Livingstone et al. 2013).

Special Education

Because of the high rates of poor literacy and educational attainments in offenders, educational components are an important part of interventions. If formerly offending youths are expected to conform to societal norms and become employed and work within the system, then they need sufficient educational attainments and work skills to succeed in getting and holding down jobs. Without these, it is far harder even for well motivated youths to avoid the apparently quick rewards crime appears to offer them (Hawkins et al. 1998).

Promising school-based interventions for violent and antisocial adolescents typically attempt to enhance socio-emotional learning, as they do in younger children. However the SEL programmes described above have not been shown to work with adolescents. For example, in secondary schools SEAL showed no overall effects on pupils (Humphrey et al. 2010). This was due to poor implementation; where it had been well-implemented, a trend towards significant results emerged (Humphrey et al. 2010). Schools that implemented it well tended to be schools that were generally well-organized, with high morale, low turnover of staff and a clearly transmitted set of rules and sense of a guiding ethos. Therefore whilst these approaches appear promising, there is currently not enough evidence to properly assess their effectiveness.

Family-based Interventions

As described above, parenting programmes are one of the best researched interventions for behavior problems in children and are recommended by the UK National Institute for Clinical Excellence as the intervention of choice for conduct disorder (National Collaborating Centre for Mental Health 2013). However, there is less evidence for their effectiveness in young people and family-based interventions for delinquent youth have typically added additional elements to parent management techniques attempting to alter the structure and functioning of the family unit, being based on systemic family therapy theories. The best known in the context of delinquency is Functional Family Therapy (FFT), brought into being in 1969 by Alexander et al. (1998). It is designed to be practicable and relatively inexpensive; 8–12 one hour sessions are given in the family home, to overcome attendance problems common in this client group; for more intractable cases, 26–30 hours are offered, usually over 3 months. The target age range is 11–18.

Following assessment, there are 3 phases to treatment. The first is the *engagement and motivation* phase. Here the therapist works hard to enhance the perception that change is possible. The aim is to keep the family in treatment, and then to move on to find what precisely the family wants. Techniques include reframing, whereby positive attributes are enhanced e.g. a youth who offends often but does not get caught is labeled as bright, and the emotional motivation is brought out, e.g. a mother who continually nags may be labeled as caring, upset and hurt.

The second phase of FFT targets *behavior change*. There are 2 main elements to this, communication training and parent training. The success of this stage is dependent on the first 2 having been achieved, and it is not commenced unless they have been. This stage is applied flexibly according to family needs. Thus if there are 2 parents who continually argue and this is impinging on the adolescent, the ‘marital subsystem’ will be addressed, using standard techniques. Parent training techniques are similar to those found in standard approaches, and include praise, rewards (called contracting in FFT – e.g. if you come home by 6 pm each night, I will take you to the cinema on Saturday), limit setting, consequences and response-cost (e.g. losing TV time for swearing).

The third and final phase of FFT is *generalization*. Here the goal is to get the improvements made in a few specific situations to generalize to other similar family situations, and to help the youth and family negotiate positively with community agencies such as schools and help them get the resources they need. Sometimes this latter goal may require the therapist to be a case manager for the family. To do this therefore requires that the therapist knows the community agencies and how the system works, and be prepared to spend time engaging it – these characteristics are specified in the model. This is a very different approach from traditional therapies in which the therapist stays neutral with regard to outside agencies.

The effectiveness of FFT is fairly well established; there have been over 10 replication studies (Alexander et al. 1998) of which over half have been independent of the developers. The trials published to date all have been positive, with the typical recidivism rates being 20.0–30.0 % lower than in controls. However, methodological quality of evaluations has not always been high. A rigorous effectiveness trial from the UK has recently been completed and the results will be published shortly.[1]

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[1] Contact the authors for more details.

Multiple Component Interventions

The example of Multisystemic Therapy (MST) will be taken as it is one of the best developed treatments of this kind. MST was developed by Henggeler et al. (1999) in the USA. There are 9 treatment principles:

1. An assessment should be made to determine the fit between the problems and the wider environment: difficulties are understood as a reaction to a specific context, not seen as necessarily intrinsic deficits.
2. Therapeutic contacts emphasize the positive and use systemic strengths as levers for change. Already the assessment will have identified strengths (such as being good at sports, getting on well with grandmother, the presence of prosocial peers in grandmother's neighborhood). The implementation of this principle means that each contact should acknowledge and work on these. The strengths may be in the young person (competencies and abilities), the parent (skills, friendliness, motivation), the family (practical resources such as nice house, affection between members, some good parenting practices, supportive friends locally, and so on), peers (any with prosocial activities or hobbies, with parents who monitor well), at the school (good classroom management, understanding of youth's special needs, drama, music or sports facilities etc.), and in the community (such as organized activities by voluntary or church organizations, parks, well functioning social services departments, children's centers). Each contact should reinforce these strengths and use a problem-solving approach to mobilize them.
3. Interventions are designed to promote responsible behavior and decrease irresponsible behavior. This principle is similar to other parenting programmes: by increasing prosocial behavior and the amount of time during which it is carried out, then inevitably antisocial behavior is not being carried out. Eventually, the objective is more than the elimination of antisocial behavior, it is to help the youth become independent and to have prosocial life skills to make relationships, contribute effectively in work, and so stay out of trouble and have a productive life. This goal however is not just for the youth; parents too have their role to play in changing their practices and beliefs, which includes taking more responsibility for their youth's behavior and making life changes to enable this to happen – which could include giving up a second job, helping with school work, and so on.
4. Interventions are focused in the present and are action oriented, and have specific, well-defined goals. The approach is what can be done in the here and now, in contrast to some therapies that emphasize the need to understand the family and the youth's past. By having clear targets, all family members are aware of the direction of treatment and the criteria that will

(continued)

be used to measure success. This also means that effectiveness can be monitored effectively and accurately, and there are clear treatment termination points when these are met. In this respect, MST is similar to behavioral and some other therapies, but differs from counseling and psychoanalytic approaches.

5. Interventions target sequences of behavior in multiple systems that maintain problems. This is an approach similar to systemic family therapy, in that change is postulated to be mediated by interpersonal transactions rather than insight. What is different is that multiple arenas are explicitly assessed and where appropriate targeted, e.g. the youth's peer group, extended family, school.
6. Interventions are developmentally appropriate. They should fit the life stage and personal level of the family members.
7. Interventions require daily or weekly efforts by family members. This enables frequent practice of new skills, frequent positive feedback for efforts made. Non-adherence to treatment agreements rapidly becomes apparent.
8. Intervention effectiveness is evaluated continuously from multiple perspectives with the intervention team assuming responsibility for overcoming barriers to successful outcomes.
9. Interventions are designed to promote treatment generalization by empowering parents to address youth needs across multiple contexts.

Interestingly, the precise nature of the moment-to-moment content of intervention is not tightly prescribed, although in practice the greater part is not dissimilar to the approach used in behavioral family therapy. However, MST is not limited to work on psychosocial interactions. For example, when the programme's developers found that despite influencing the more distal risk factors for drug taking, such as parental supervision and school attendance, drug use was not diminishing as much as they had hoped, they instituted daily urine tests and paid the young people if they were clear of drugs. What is noticeably different from many therapies is the explicit recognition of the multiple contexts in which difficulties may occur, and the need to influence these. In a sense, MST is a set of operating principles that draw on the evidence for whatever works, e.g. CBT, close monitoring of association with deviant peers, constructive teaching, and so on, rather than one specific therapy.

The way the therapy is delivered is closely controlled. Due to the weekly monitoring of progress, if there are barriers to improvement these should be rapidly addressed, and the hypotheses of what is going on in the family and systems around the youth should be revised in the light of progress. Clinicians only take on 4–6 cases since the work is intensive. There is close attention to quality control by weekly supervision along prescribed lines, and parents and youths themselves fill in weekly questionnaires on whether they have been receiving therapy as planned. Therapy is given for 3 months and then stopped.

Given that MST makes good use of up-to-date evidence on the causes of antisocial behavior, and good use of effective treatment principles such as close measurement of effectiveness during treatment and close attention to implementation quality, one might hope that results would be encouraging. Indeed, the first raft of outcome studies by the programme's developers were positive. Thus the meta-analysis of papers up to 2003, including by one of the programme's developers, Charles Borduin, found that in 7 outcome studies comparing MST to treatment as usual or an alternative with 708 youths by 35 therapists, the mean overall effect size across several domains was 0.55 (Curtis et al. 2004). Outcome domains ranged from offending (arrests, days in prison, self-reported criminality, self reported drug-use) where the mean effect size was 0.50, peer relations (0.11), family relations (self-reported 0.57 and observed 0.76), and individual youth and parent psychopathology symptoms (0.28). When these studies were subdivided into chronic offenders *vs.* the remainder (youths who were abusing drugs, sex offenders and psychiatrically disturbed youths), no differences were found. However, the 3 studies using the developers own graduate students as therapists got noticeably larger effect sizes (mean 0.81) than when the developers were supervising local community therapists, where the effect size mean was down to 0.26. Long-term follow-up 14 years later (when the individuals mean age was 29 years old) by the developers of one of the first trials, with 176 cases allocated to MST or usual individual therapy, gave recidivism rates of 50.0 % *vs.* 81.0 % respectively. Most recently a long-term follow-up of the siblings of treated youth found lower rates of arrest in middle adulthood (Wagner et al. 2014).

There have been at least 27 published reviews of MST (Littell 2005) and the sorts of findings cited above have led MST to be cited as an effective, evidence-based treatment by the US National Institute on Drug Abuse, the National Institute of Mental Health, the Office of Juvenile Justice and Delinquency Prevention, and others. However, in the process of evaluation, the next test of any therapy is its effectiveness when carried out by teams who have no financial or employment ties with the developers (although they may pay the developers for materials and supervision), with an independent evaluation team. The first independent evaluation was also the first one to use proper intention to treat analyses (rather than exclude treatment refusers), and it found, with a large sample ($N = 409$) in Ontario, Canada, that MST yielded no improvement on treatment as usual on any outcome, either immediately or by 3 year follow up (Lescheid and Cunningham 2002). A smaller independent study in Norway ($N = 75$; Ogden and Hagen 2006) was more positive, and found effect sizes of 0.26, for self-reported delinquency; 0.50, for parent-rated; and 0.68, for teacher-rated, though here there was 40.0 % missing data. Likewise, a totally independent trial by Timmons-Mitchell et al. (2006) in the USA randomized 93 delinquents and also got substantial beneficial effects also. The Canadian study (not published in a peer reviewed journal but of high quality) was included in the Cochrane Library's review of MST (Littell 2005), but the other 2 independent Norwegian and US studies were not. The Cochrane conclusion that *evidence suggests that MST is not consistently more effective than other alternatives* is thus in our view unduly harsh. Its general tone was very conservative, thus it also concluded that MST had no harmful effects and that nothing else was proven better than MST. Furthermore, there have been 2 subsequent evaluations of MST in the last few years, one conducted by the programme developers (Letourneau et al. 2009) and one independent evaluation in the UK (Butler et al. 2011), both of which have demonstrated the effectiveness of MST. However, in the UK trial MST resulted in greater reductions in offending only at the long-term follow-up and only for non-violent offences.

This conclusion is more cautious than the previously established view. A number of reasons are possible. First, the developers own studies did not do full intention to treat analyses, and may have been more favorable since some cases with worse outcomes (the drop-outs) were excluded. Secondly, the degree of skill with which the intervention was delivered may have been higher in the developers' sites. Evidence on treatment fidelity for MST is mixed – in the independent Ontario study fidelity as rated on-site was unrelated to outcomes. Henggeler et al. (1999) stated that fidelity is crucial for effectiveness. Accordingly, in their first paper on the subject, they made 105 correlations between fidelity and outcomes, and only 11 were significant, with some being in the opposite direction predicted, i.e. better adherence leading to worse results. However, the same research group (Huey et al. 2000) found that when they used a latent variable approach, therapist rated fidelity improved family functioning and parent monitoring, both of which in turn reduced youth delinquency, but that parent and youth rated fidelity had no effect. This rater effect could be because it requires a therapist to appreciate the complexity of fidelity, and also because therapists working across cases will be more consistent in their ratings than parents and youths, who may differ widely in their rating of the same phenomena. Thirdly, the financial conflict of interest may have unconsciously led the developers to bias their results favourably. Henggeler et al. (1999) hold stock in MST Services Inc, which has the exclusive licensing agreement for MST. It serves around 10,000 families a year and total fees amount to around $500 per youth served (Littell 2006). Fourth, the comparison treatment may have been different in Canada, where the justice system may be better organized. However, the Cochrane reviewers (Littell 2005) point out that their conclusions would have been largely the same even without this study.

Given that MST is predicated on sound, modern principles, why is it often hard to get consistently reliable effects? A further possibility is that 3 months of treatment are too few. To disentangle possible explanations, we need good measures of mediators during treatment, and crucially, after the end of treatment. This would enable, for example, one to see whether parenting practices continue to be strong after the intervention ceases, and whether in turn this mediates relapse; or say, is it deviant peer association that leads to more offending? Some conclusions are in order. We need more RCTs independent of the programmes developers. They should use Intention to Treat analyses, develop therapist adherence and skill to as high a level as possible and measure it, and be of sufficient power to measure moderators and mediators, so that variations in outcomes can, where possible, be accounted for.

Interventions with Multiple Components that Put Youths into Foster Families

The best example of this approach is Multidimensional Treatment Foster Care (MTFC). It evolved at the Oregon Social Learning Centre, beginning in 1983 (Chamberlain 2003), where parent training with families of delinquents proved extremely difficult, (although reasonably effective – Bank et al. 1991), due to the inability of the family to cope with the extreme demands of having a delinquent youth. This led to the idea of placing them in a specially trained foster family. It has a number of similarities with MST. It is based on an interactive model, whereby the moment-to-moment interactions are seen as the key to change. However, it differs in that the regime in the foster home is based on the youth earning points from the moment they get up. They have to earn 100 points a day, then they can get privileges such as going to bed later, having time on the computer, extra time to phone friends, and so on. Points are awarded for day to day living and social skills, such as making the bed, being polite, getting to school on time, and so on. While at school points are awarded for good behavior in class.

Unlike some programmes, in MTFC points are also taken away, for example for swearing or being unhelpful. Foster carers are carefully trained to take away points with the minimum of negative affect and to quickly offer the young person the opportunity to make up points by doing a small chore. For the youth, the immediacy of experiencing a contingent response to their behavior is often a stark contrast to being left alone or having long coercive interchanges with their parents. In addition to close liaison with the school, close supervision is key – the young person loses fully a point a minute for all time where they cannot verify their whereabouts, a sizeable fine. There is a relatively large team to carry out MTFC. The programme supervisor oversees the case, and has a maximum case load of 10. Then there is an individual therapist who sees the youth once or twice a week, for problem-solving and to develop skills based coaching of how to negotiate everyday situations – not for traditional psychotherapy. When the youth is in the community, there is a skills trainer, usually a young graduate, to help them negotiate prosocial activities and avoid dangerous situations.

MTFC lasts for around 6 months and then the young person returns to their birth family. However, crucial to the model is the birth family therapist, who while the youth is in the foster family, works with the birth family to inculcate the same regime to be used. While the youth is in foster care, there is a weekly clinical meeting for all team members, and a weekly foster carer meeting attended by the programmes supervisor and other team members, at which progress is discussed, support given to foster carers, and the day-to-day management regime carefully adjusted. However, each youth's progress is even more closely monitored, since every morning a team member calls the foster carer and goes through the Parent Daily Report, a simple 36 item checklist of antisocial behaviors requiring a yes/no answer. The clinical team plots progress graphically, so that any deterioration is quickly detected, and remedial action put in place.

There have been 2 main trials completed with MTFC for delinquency, 1 with boys and 1 with girls, both by the programme's developers. With boys ($n = 79$), MTFC compared to group care led to a reduction in the number of arrests at 2-year follow-up (for 2 or more arrests 5.0 % *vs.* 24.0 %), and reduced self-reports of aggression and fighting (Eddy et al. 2004). With girls at 1 year follow up ($n = 81$), criminal referrals showed a trend (mean 0.76 referrals in MTFC, 1.3 for group care, $p = 0.10$), days locked up 22 *vs.* 56 ($p < 0.05$), a reduction on CBCL delinquency but none on Elliott delinquency. No report of CBC aggression scales or other measures such as the PDR are given (Leve et al. 2005). A Cochrane review of the intervention (Macdonald and Turner 2008) concluded that it was a promising intervention, that there was some evidence for reductions in aggressive and violent behavior, but that the evidence base is less robust than usually reported. Clearly, further evaluations of MTFC are now needed, and are in progress[2] and one has shown reductions in violent behavior in girls (Rhoades et al. 2013). The model is also being extended to younger children, and to less intensive forms.

Ineffective Interventions

Harsh, military style shock incarceration, so-called "boot camps" are still popular for young offenders in the USA, and were promoted by the Office of Juvenile Justice and Delinquency Prevention in 1992 when 3 pilot programmes were set up. However, and as noted earlier, several reviews have concluded they are ineffective (Benda 2005; Cullen et al. 2005; Meade and Steiner 2010; Stinchcomb 2005; Tyler et al. 2001), and a RCT by the California Youth Authority that included long-term arrest data found no difference between boot camp and standard custody and parole (Bottcher and Ezell 2005). However, one review found that they do improve individuals' attitudes (Meade and Steiner 2010). In contrast, a meta-analysis of 28 studies of wilderness programmes found an overall effect size of 0.18, with recidivism rates of 29.0 % *vs.* 37.0 % for controls (Wilson and Lipsey 2000). Programmes with intense physical activity and a distinct therapeutic component were the most effective. Another approach is to attempt to frighten delinquents with visits to prisons in an attempt to deter them, as for example in the "Scared Straight" programmes. However, a meta-analysis of 9 controlled trials found that the intervention on average is more harmful than doing nothing, as it led to worse outcomes in participants (Petrosino et al. 2003).

Peer group work can also be harmful. In an evaluation of the Adolescent Transitions Programmes, Dishion and Andrews (1995) studied 120 families with an antisocial youth who were randomized to 1 of 4 conditions: parent only, youth only, parent and youth, and control. The parents attended standard parent training sessions, but the youths attended in groups of 4–6. At 1 and 3 year follow up, adolescents allocated to the youth groups intervention fared significantly worse on a

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[2] http://www.mtfce.org.uk

number of outcomes, including teacher-rated delinquency and self-reported antisocial behavior and substance use. Those allocated to the parent only condition in contrast showed reduced teacher (but not parent) rated delinquency, and less negative family interaction patterns as assessed by direct observation. Videotapes of the group process revealed that despite the group leaders supporting a reduction in deviant talk and promoting positive peer support for prosocial behavior, in fact youth engaged in surreptitious deviant talk both during sessions and in intervals. Subsequent analyses proved that those youths who took part in increasing amounts of deviant talk predicted poor outcomes 3 years later, such as expulsion from school, arrests, and drug use (Granic and Dishion 2003). Over 40 years ago, Patterson had shown that within residential institutions for antisocial youths, for every one positive behavior reinforced by an adult, 9 deviant behaviors were reinforced by peers (Buehler et al. 1966).

The famous Cambridge-Somerville delinquency project studied 400 youths, half of whom were offered a range of interventions for 4 years that were state of the art at the time in the early 1940s, but 30 year follow up showed increased criminal activity, drug, cigarette and alcohol use by the intervention group compared to controls (McCord 1978). Reanalysis of the data led to the conclusion that that those who had done poorly were those who had been sent to summer camp twice, where the author hypothesized "deviancy training" occurred amongst delinquent peers; subsequent deviant acts were 10 times more likely (Dishion et al. 1999; McCord 1997). These lines of evidence have led the group (Gifford-Smith et al. 2005) to warn against peer contagion "in a whole range of settings". However, Weiss et al. (2005) have questioned these findings and in a fresh meta-analysis to address the question, found that in 17 of 18 studies group treatments for antisocial behavior did not support iatrogenic or deviancy training effects. In conclusion, it seems likely that unsupervised and prolonged contact with deviant peers is harmful, but well supervised and well supported contact during which youths are actively taught new skills can be effective. Recent evidence supporting this conclusion comes from a long-term follow up of British boot camps showing positive outcomes when this otherwise ineffective or harmful approach was combined with educational and vocational training (Jolliffe et al. 2013).

Callous-Unemotional Traits and Antisocial Personality Disorder

CU traits are being increasingly recognized in children and adolescents, and, as discussed above, are becoming recognized as a marker of a specific developmental path to violence and antisocial behavior. Youths with these traits are commonly seen in justice systems due to the combination of deceptiveness, violence and antisocial behavior. Factor analyses typically find 3 sets of characteristics (Cooke and Michie 2001): (1) an arrogant, deceitful interpersonal style, involving dishonesty, manipulation, grandiosity and glibness; (2) defective emotional experience, involving lack of remorse, poor empathy, shallow emotions and a lack of responsibility for one's own actions; and (3) behavioral manifestations of impulsiveness, irresponsibility and sensation-seeking.

Delinquent offenders with these psychopathic traits have an earlier onset of offending, commit more crimes, reoffend more often (Forth and Burke 1998), and more violently (Spain et al. 2004) than non-psychopathic criminal youth. In addition, they exhibit insensitivity to punishment cues irrespective of whether or not they have conduct problems, making them especially hard to treat (O'Brien and Frick 1996). Antisocial Personality Disorder (using *DSM*-IV criteria) was found in 81.0 % of sentenced 16–20 year old males in the Office for National Statistics surveys (Lader et al. 2003). However, over-confident predictions about poor outcomes for youth with these traits should be avoided, as knowledge about the nature, stability and consequences of juvenile psychopathy is still very limited. There have been no published longitudinal studies of its stability and it remains unclear to what degree the antisocial behaviors in callous-unemotional youths change over time. For this reason many researchers in this field refer to juveniles with 'psychopathic characteristics' rather than using the term 'psychopathy'.

Recent findings are challenging the previous view that children with CU traits do not respond to treatment for antisocial behaviour. A number of recent studies have shown improvements in conduct problems in children with CU traits when treatment models have focused on emotion recognition skills (Dadds et al. 2012) and improving the parent-child bond (Somech and Elizur 2012). These studies show large effect sizes but have been conducted with children. However, one recent study has shown that violent youth with CU traits showed the most improvement after receiving FFT (White et al. 2012). Whilst this is a promising finding, it should be noted that there was no control group in this study. There have also been a handful of studies showing reductions in CU traits following treatment (Hawes and Dadds 2007; Kolko et al. 2009; McDonald et al. 2011; Somech and Elizur 2012; see Waller et al. 2013, for a review). However, there have been no studies showing improvements in CU traits in adolescents.

Conclusion

Many of the risk factors for the development of violent and antisocial behaviour are well-understood and this has allowed the identification of specific targets for intervention. Over the last 40 years a number of interventions based on these principles have been developed and tested. Those based on social learning theory and incorporating parent management training have been shown to be highly effective in children. There is also some evidence for programmes based on cognitive-behavioral approaches. In adolescents there is less evidence for what works but multi-systemic approaches are likely to be most effective. At the same time, there are a number of approaches that have been shown to be ineffective and, in some cases, positively harmful. Finally, the individual characteristics of the violent child or adolescent should be taken into account when selecting interventions, with particular focus on identifying CU traits.

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