

Chapter 2

Intergenerational Transmission of Violence

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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 (Maestriperi 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 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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