

# Linking Adverse Childhood Effects and Attachment: A Theory of Etiology for Sexual Offending

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## Abstract

Sexual violence continues to be a significant public health problem affecting significant portions of the population. Unfortunately, an agreed upon theory of etiology remains elusive leading to challenges in developing effective prevention and treatment interventions. Recently, there is a growing body of literature examining the role of adverse childhood experiences (ACEs) in the development of sexually violent behavior. This research has begun to explore the rates of various types of child maltreatments and family dysfunction in individuals who have been convicted of a sexual crime. These empirical inquiries have been primarily descriptive in nature and have not yet provided a cohesive theoretical model as to why the presence of ACEs might contribute to sexually abusive behavior. This article suggests that attachment theory offers an explanatory link between early adversity and sexually abusive behavior in adulthood. We first summarize important attachment theory concepts, then integrate them with research in the area of developmental psychopathology and ACEs, and finally propose a model by which attachment can be used as an explanatory theory for subsequent sexualized coping and sexually abusive behaviors. Finally, this article explores the implications for practice, policy, and research using this explanatory theory as a framework for understanding sexual violence.

## Keywords

attachment, offenders, sexual assault, etiology, child abuse, anything related to sexual assault, sexual assault

Sexual violence continues to be a social problem of enormous concern in our society (Dartnall & Jewkes, 2013; Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006). A World Health Organization report states that sexual violence is a global health crisis, citing that nearly 20% of all women and 5–10% of men are victims of sexual abuse as children (Krug, Dahlberg, Mercy, Zwi, & Lozano, 2002). In addition, according to the National Sexual Violence Resource Center, one in three women worldwide experiences sexual violence (Worldwide Sexual Assault Statistics; National Sexual Violence Resource Center, 2005). On a national level, the Centers for Disease Control and Prevention (CDCP, 2004; Black et al., 2011) estimates that there are approximately two million women raped each year, which is why sexual violence has been referred to as a public health problem (Bonnar-Kidd, 2010; Centers for Disease Control and Prevention [CDCP], 2004). In order to reduce the rates of sexual assaults, it is essential that researchers, policy makers, and practitioners identify and understand the mechanisms or pathways that lead individuals to commit such crimes. This knowledge is critical, as it will inform practitioners, for example, how to design more effective treatments for those who have already committed a sexual offense. Furthermore, such knowledge will aid practitioners and policy makers in designing primary prevention programs and policies to target risk areas before they lead to criminal

behavior. Finally, a better understanding of the factors contributing to sexual assault will assist lawmakers in developing more effective policies that address risk on a systemic and structural level.

Recently, there is a growing body of literature examining the role of adverse childhood experiences (ACEs; CDCP, 2014) in the development of sexually violent behavior. This research has begun to explore the rates of various types of child maltreatments and family dysfunction in individuals who have been convicted of a sexual crime. These empirical inquiries have been primarily descriptive in nature and have not yet provided a cohesive theoretical model as to why the presence of ACEs might contribute to sexually abusive behavior. This article suggests that attachment theory offers an explanatory link between early adversity and sexually abusive behavior in adulthood. We propose in this article that maltreatment and

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other adverse experiences disrupt children's socioemotional development (e.g., empathy and self-regulation) and their understandings of themselves (i.e., attachment formation), which then puts them at risk for later relational difficulties and possibly sexual offending. We first summarize important attachment theory concepts, then integrate them with research in the area of developmental psychopathology and ACEs, and finally propose a model by which attachment can be used as an explanatory theory for subsequent sexualized coping and sexually abusive behaviors.

## Attachment Theory

Attachment theory, originated by Bowlby (1973), posits that children develop particular beliefs and behavioral patterns based on the relationship they have with their primary caregiver (Bretherton, 1992). Through the initial relationship with the primary caregiver(s), infants form what is called an attachment, which is the part of the relationship between the caregiver and the infant "that makes the child feel safe, secure, and protected" (Benoit, 2004, p. 541). The attachment to the caregiver can be seen through the "proximity-seeking [behaviors] by the infant toward the mother or other primary caregiver" (Shillkret & Shillkret, 2011, p. 190) as the child uses the caregiver as a secure base from which he can explore his surroundings and have a source of comfort (Benoit, 2004; Bowlby, 1973).

The quality of this attachment is based on the responsiveness and attunement of the caregiver to the infant's needs (Benoit, 2004; Bowlby, 1973; Shillkret & Shillkret, 2011). Depending on how the caregiver responds, the child will learn to anticipate similar responses in the future and organize his own behaviors accordingly (e.g., developing strategies to manage own distress if the caregiver ignores the child's needs; Benoit, 2004). There are three "organized" patterns or styles of responding to distress that have been identified in infants and one style of attachment that is "disorganized" (Benoit, 2004; Main & Solomon, 1990). Of these four different styles, one is referred to as a secure attachment, while the other three are considered to be insecure attachments (Hazan & Shaver, 1987; Main & Solomon, 1990). Children develop attachment security when they perceive caregivers as empathic and continuously experience caregiver responsiveness (Bretherton, 1992). This style is considered "organized" as the child knows what to do when distressed, and the child goes to the caregiver for comfort and security (Benoit, 2004). Secure attachments are considered optimal for emotional development. Securely attached persons retain stable views of relationships and their own sense of self-worth (Shillkret & Shillkret, 2011).

Childhood insecure attachments are categorized into three subcategories: anxious, avoidant, and disorganized (Hazan & Shaver, 1987; Main & Solomon, 1990). Children develop attachment insecurity in the context of unresponsive, inconsistent, abusive, controlling, or neglectful caregiving (Shillkret & Shillkret, 2011). Insecurely attached individuals may perceive intimate relationships as threatening and develop maladaptive

interpersonal patterns in an effort to avoid feelings of vulnerability. Specifically, individuals who develop an anxious/ambivalent attachment have caregivers who are intermittently available and unpredictable. In response, the child "organizes" his behavior in a way that displays emotional volatility and extreme neediness, such as clinginess, in order to get the caregiver's attention (Benoit, 2004; Shillkret & Shillkret, 2011). Individuals who develop an avoidant attachment have "organized" their behaviors when distressed to avoid their caregivers, who tend to ignore or become annoyed by the distress of the child and withdraw (Benoit, 2004). The final insecure attachment style is "disorganized." These individuals have caregivers who are frightening, distressing, and/or traumatizing, and the child is unsure how to respond to the caregiver or what to do when he feels distressed (Benoit, 2004; Main & Solomon, 1990). Those with disorganized attachments do not fall within anyone particular pattern and have been therefore labeled as disorganized to capture their inconsistent patterns of responding. Children with disorganized attachments tend to show characteristics of the other two insecure patterns; and, because they are unsure of how to respond, they often look dazed, frozen, and/or frightened (Main & Solomon, 1990; Shillkret & Shillkret, 2011).

Through these relationship experiences, children form what is called an internal working model (IWM), which is like a template that serves as the basis for other future relationships with others beyond the initial caregiver (Bretherton, 1992). These IWMs define the individual's self-image and also shape his or her expectations of care and stability in future relationships (Bowlby, 1969/1982; Bretherton, 1992). As such, the IWM becomes like a mental blueprint that influences future interpersonal expectations and behaviors. For example, if an individual experienced her primary attachment caregiver as trustworthy, responsive, and attentive, she will enter into future relationships with the expectation that others will respond to her in a similar manner. On the other hand, if she experienced her caregiver as abusive, dismissive, threatening, or unresponsive, she will be more likely to enter into future relationships with anxiety or to avoid interpersonal intimacy as a form of protection from vulnerability. These IWMs typically carry over into adulthood, demonstrating the continuity of attachment patterns across the life span (Shillkret & Shillkret, 2011).

Studies have demonstrated that there is a robust relationship between childhood and adult attachment patterns (Shillkret & Shillkret, 2011), meaning that childhood attachment patterns predict adult patterns. The categories of adult attachment styles are similar to those of children and fall into four primary organized patterns: secure, anxious-preoccupied, dismissive-avoidant, and fearful-avoidant (Fraley & Shaver, 2000; Hazan & Shaver, 1987). Most often, these patterns manifest within adult romantic partnerships, where the IWM emerges and impacts how the individual engages with and responds to a partner (Fraley & Shaver, 2000).

Fraley and Shaver (2000) summarized the original research by Hazan and Shaver (1987) and others to provide the following summary of the different adult attachment styles. Similar to

the children with secure attachments, adults who are securely attached have positive and relatively stable views of themselves and others. Adults who identify as anxious-preoccupied exhibit high levels of emotional expressiveness and can be overly dependent on their partners. Those with a dismissive-avoidant style tend to deny that they need any form of intimacy and purposefully avoid relationships and by doing so unconsciously avoid rejection. Finally, those who fall in the fearful-avoidant category have a great deal of ambivalence with regard to intimate connections. They simultaneously seek and reject emotional connections, because relationships make them feel vulnerable and have been experienced in the past as threatening or wounding. These individuals often have an abuse history and most likely had a disorganized attachment pattern as children. The similarities between the childhood and adult attachment patterns, as well as the high predictability of childhood attachment patterns leading to a corresponding adult pattern, indicate that the quality of the attachments that individuals form as children have enduring consequences and outcomes well into adulthood (Fraley & Shaver, 2000).

### *Research on Impact of Attachment Styles*

Research on the long-term effects of the quality of the attachment has shown that insecure attachments correlate to a number of deficit areas and behavioral outcomes (Hudson, Ward, & McCormack, 1999; Smallbone & Dadds, 1998; Vondra et al., 2001). When compared to individuals with secure attachments, individuals with insecure attachment styles demonstrate greater difficulties with emotional, behavioral, and cognitive regulation and with intimacy later in life (Bogaerts, Vanheule, & Declercq, 2005; Hudson & Ward, 2000; Lyn & Burton, 2005; Vondra et al., 2001). In addition, insecure attachments contribute to a range of mental disorders, including affective disorders, substance abuse disorders, post-traumatic stress disorder, psychotic disorders, and antisocial, borderline, and narcissistic personality disorders (DeKlyen & Greenberg, 2008; Mikulincer & Shaver, 2007; Rosenstein & Horowitz, 1996).

There is also a demonstrated link between attachment-related issues and aggression in a variety of age cohorts. Young children reared with adverse caregiving demonstrate maladaptive responses to separation and authority, including aggressive behaviors (Crittenden, 1992). Longitudinal research on older individuals with insecure attachment styles has shown that these individuals have higher rates of aggressive behavior and empathy deficits when compared to individuals with secure attachment styles (Smallbone & Dadds, 1998; Vondra et al., 2001). Patterson, DeBaryshe, and Ramsey (1990) offer a developmental model for antisocial behavior that explicitly links caregiver-child interactions with delinquency in youth.

Developmental theories of antisocial behavior further suggest that incompetent parenting, harsh punishment, poor supervision, and limited positive family involvement pave the way for conduct problems and delinquent activities (Cicchetti & Banny, 2014; Ford, Chapman, Connor, & Cruise, 2012; Kohlberg, Lacrosse, Ricks, & Wolman, 1972; Patterson,

DeBaryshe, & Ramsey, 1990; Rutter, Kim-Cohen, & Maughan, 2006). The detrimental effects of multiple traumas on biopsychosocial development and attachment increase risk for a range of self-regulation problems including aggression and substance abuse (Ford et al., 2012). Developmental psychopathology theorists propose that relational and behavioral patterns result from a dynamic interaction of affective and cognitive processing by which children attach meaning to their experiences (Rutter & Sroufe, 2000). Abusive or neglectful attachment experiences in childhood are characterized by betrayal and invalidation, which manifest in distorted expectations of oneself, others, and relationships. Pathogenic parenting can cultivate the formation of maladaptive schema, disorganized attachment styles, and poor affective and behavioral regulation (Beech & Mitchell, 2005; Chakhssi, Rutter, & Bernstein, 2013; Loper, Mahmoodzadegan, & Warren, 2008; Young, Klosko, & Weishaar, 2003) impeding healthy functioning across the life span (Cicchetti & Banny, 2014; Rutter et al., 2006). Early maltreatment and family dysfunction can lead to mistrust, hostility, and self-regulation problems in children, which can lead to behavior characterized by hyperactivity, opposition, defiance, and conduct problems. These behavioral patterns can in turn elicit social rejection from teachers and classmates; the child then may seek interpersonal connection, validation, and a sense of self-efficacy through negative peer associations and delinquent behavior. This intricate trajectory is further complicated by cumulating cascade effects, by which an early disadvantage in one domain of functioning impairs subsequent mastery in other developing areas (Masten & Cicchetti, 2010; Rutter et al., 2006).

These patterns also have an impact on the individual's neurobiology and brain development. Disrupted attachments have been shown to have a direct impact on brain development, which in turn leads to behavioral and emotional dysregulation, including sexual violence (Beech & Mitchell, 2005; Mitchell & Beech, 2011). As the brain develops, different neurochemicals are transmitted, influencing sexual behaviors along with a range of other interactional patterns (Nelson & Panksepp, 1998), including antisocial impulsivity, depression, and hypersexuality (Kafka, 2003).

While research indicates that early adverse experiences and attachment are strongly correlated, it is important to note that causation cannot be definitively determined, and there is likely some reciprocity between early maltreatment and emerging attachment deficits. For example, abused children with insecure attachments may engage in ways that present challenges for adult caretakers, perhaps eliciting punishment or rejection which further interferes with bonding. However, the research clearly demonstrates that there are strong associations between early childhood maltreatments, insecure attachments, and later life challenges and negative outcomes.

### *Attachment and Sexual Offending*

A lack of healthy emotional intimacy in a childhood environment can contribute to subsequent impersonal, selfish, or

adversarial relational patterns. Tolerant attitudes toward non-consensual sex can develop through an individual's attempt to reconcile their own adverse experiences or by adopting the distorted perceptions of abusers in one's life (Hanson & Morton-Bourgon, 2005). Four distinct but related constructs seem to contribute to sexual offending to a greater or lesser extent for each individual: emotional regulation problems, deviant sexual attractions, intimacy and social deficiencies, and offense-tolerant belief systems (Ward, 2014). There is now a growing body of literature that demonstrates the strong correlation between these constructs and insecure attachments, including struggles with emotional regulation, difficulties with intimate relationships, and distorted views of individuals and of relationships (Benoit, 2004). As such, the challenges and deficits in the constructs proposed by Ward are similar to the challenges and deficits found in individuals with insecure attachment styles.

In fact, research demonstrates that there is a correlation between insecure attachment and sexual offending in adolescence and adulthood (Beech & Mitchell, 2005; Miner, Romine, Robinson, Berg, & Knight, 2014; Mitchell & Beech, 2011). Some authors have reported that adult romantic relationships patterns and adult sexual behavior are directly related to childhood attachment, which includes sexually abusive behavior (Jakupcak, Lisak, & Roemer, 2002; Lyn & Burton, 2004; Marshall, 2010; Ward, Hudson, & Marshall, 1996). For example, adult male sex offenders with insecure attachment styles report a higher tolerance for violence and aggression in general, show higher levels of aggression in sexual relationships, and have unstable adult intimate relationships and difficulties trusting romantic partners (Lyn & Burton, 2005).

The specific types of attachment styles of individuals who commit sexual offenses (ISOs) have also been linked to the types of sexual crimes committed and their victim choice (Abbiati et al., 2014; Lyn & Burton, 2004; Smallbone & Dadds, 1998; Ward et al., 1996). For example, preoccupied/anxious adult attachment styles are seen more often in those who molest children versus those who commit rapes (Ward et al., 1996). ISOs who commit rapes are more likely to have a dismissive/avoidant style (Ward et al., 1996). According to attachment theory, these offense and victim patterns are based on the IWM that stems from their attachment styles (Shilkret & Shilkret, 2011). For instance, Abbiati et al. (2014) reported that a majority of ISOs they studied reported physical (61%), psychological (63%), and/or sexual (37%) violence as children and proposed that these experiences created difficulties forging emotional bonds and developing an internal locus of control, similar to the deficits noted in Ward's (2014) proposed pathways to offending. According to attachment theory, these violent experiences as children formed the basis for their IWM on which they base their behaviors in subsequent relationships, including violence and coercion. It is possible that insecure attachments lead to deficits that sex offenders then try to repair through coercive, violent, or deviant sexual behavior (Bushman, Baumeister, & Phillips, 2001; Marshall, 2010; Ward et al., 1996).

## The Role of Adverse Experiences in the Development of Attachment

In the mid-1990s, the CDCP partnered with Kaiser Permanente, a health-care organization, to conduct a large epidemiologic study to understand how ACEs might impact adult health (Felitti, 2002). The study of over 17,000 adults revealed that child maltreatment and household dysfunction were quite common, that multiple ACEs often co-occurred in a household, and that the accumulation of childhood adversity led to dramatic increases in the likelihood of a range of health and social problems (Anda, Butchart, Felitti, & Brown, 2010; Felitti, 2002; Felitti et al., 1998). The process is a complex but seemingly linear route in which childhood adversity leads to social, emotional, and cognitive impairment, provoking the adoption of risk-related behaviors as coping strategies, which ultimately contribute to the development of disease, disability, social problems, and premature mortality (Felitti et al., 1998).

In accordance with this rather simplistic explanation of an extremely complex biopsychosocial process, research has uncovered the "biologic plausibility" (Anda et al., 2010, p. 95) of the link between child maltreatment or other trauma and long-term changes in the structure and function of interconnected brain regions (Anda et al., 2010). There are several hypotheses regarding how maltreatment specifically interferes with physiological development (Trinkett, Noll, & Putnam, 2011). Early stressors affect the production of stress-related hormones (such as cortisol) associated with fight-or-flight responses, inhibiting the growth and connection of neurons, and setting the stage for lifelong effects such as affect dysregulation, deficits in social attachment, and cognitive problems (Anda et al., 2010; Anda et al., 2006). These negative consequences are magnified when the traumatic experience is invalidated by the victim, family, or helping professionals but mitigated when victims are supported and allowed to express and process their traumatic stress (Whitfield, 1998). Long-term studies of adults who were sexually abused as children show that these individuals "are biologically changed with lower resting levels of cortisol, asymmetrical stress responses, and abnormal physical development including increased rates of obesity and earlier onsets of puberty" (Trinkett et al., 2011, p. 468).

The dynamics that characterize abusive relationships include betrayal by a trusted person (often a caregiver), violation of hierarchical boundaries (power differentials inherent in age or role), keeping of secrets, and distortion of reality in a way that reinforces the values, beliefs, and behaviors of the abuser (D. E. Elliott, Bjelajac, FalLOT, Markoff, & Reed, 2005; Harris & FalLOT, 2001; Teyber & McClure, 2011). In abusive environments, victims' voices are unheard, denied, or dismissed, and the victim feels powerless to alter or leave the relationship (Harris & FalLOT, 2001). Consequently, traumatized individuals may develop maladaptive relational patterns that persist into adulthood.

Although not as robust as other bodies of literature on ACE-related outcomes, there is growing empirical support linking early adverse conditions to attachment formation. One

study demonstrated that maltreated children were likely to form insecure attachments that contribute to sustained problems managing relationships throughout the life span (Morton & Browne, 1998). Another study disaggregated the different types of childhood maltreatment reported and found that abuse cases were most likely to increase the risk of forming insecure attachment in childhood (Baer & Martinez, 2006). Emotional abuse in particular has been linked to the formation of insecure attachments in children, potentially with greater impact on male than on female children, although this gender difference requires further study (Taussig & Culhane, 2010).

Early attachment relationships have the potential to impact individuals beyond childhood and well into adulthood. For example, negative caregiving experiences, including parental divorce and different types of childhood abuse, have been linked to insecure adult attachment (Riggs & Jacobvitz, 2002; Riggs & Kaminski, 2010; Unger & De Luca, 2014). In addition, childhood emotional abuse by a relative has been associated with insecure adult attachment styles, particularly preoccupied and disorganized classifications (Riggs & Jacobvitz, 2002; Riggs & Kaminski, 2010). Furthermore, childhood physical abuse has been associated with adult attachment avoidance and, to a lesser extent, attachment anxiety (Unger & De Luca, 2014). Notably, while this research examines attachment outcomes related to ACE-like conditions, it stops short of explicitly using ACE items to measure the correlation.

There is an emerging body of research connecting ACE items to the formation of insecure attachment systems. ACEs of intrafamilial abuse and neglect have been shown to be associated with all of the insecure attachment classifications (Bifulco et al., 2006). Another study examined the association between ACEs and adult attachment style and found that as the number of ACEs increased, so did the probability of having disorganized attachment (Murphy et al., 2014).

Neurobiological research has also explored the linkage between ACE and attachment, demonstrating that ACEs actually produce biochemical changes in the parts of the brain that regulate attachment behaviors (Beech & Mitchell, 2005). Thus, there appears to be a neurobiological explanation as to why ACEs can have such profound impact on the attachment system. However, the ACE–attachment relationship is an area that warrants further exploration and study. Other research has examined the neurological impacts of developmental adversity and demonstrated that childhood trauma inhibits neural integration, which is thought to hinder the ability to create and sustain secure attachment relationships (Creeden, 2009; Teicher, Andersen, Polcari, Andersen, & Navalta, 2002). A separate body of neurological research has examined adversity in childhood to see how such experiences impact violence perpetration generally, not specific to sexual offending.

### **Childhood Adversity, Attachment, and Sexual Offending**

Criminal offenders are more likely to have experienced adverse childhoods and to have experienced *more* adverse childhood

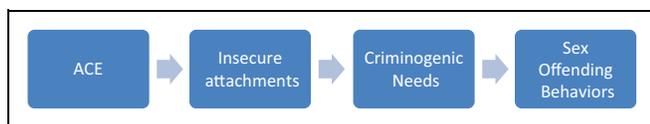
events, compared to the nonoffending population (Levenson, Willis, & Prescott, 2014; Reavis, Looman, Franco, & Rojas, 2013; Widom & Maxfield, 2001). For instance, Reavis, Looman, Franco, and Rojas (2013) surveyed 151 interpersonal violence offenders who were referred to a San Diego outpatient clinic for treatment. Compared to a male normative sample, offenders reported almost 4 times as many ACEs. ISOs were more likely to report childhood sexual abuse incidents (Reavis et al., 2013). A recent study of 614 male prisoners aged 50 or older in 12 prison facilities in the Northeastern United States found that childhood emotional abuse and neglect predicted latter sexual victimization *and* sexual offending behavior (Jennings, Zgoba, Maschi, & Reingle, 2014).

In another study that specifically focused on 679 convicted male ISOs conducted by Levenson, Willis, and Prescott (2014), compared to males in the general population, ISOs were more than 3 times as likely to report childhood sexual abuse, more than twice as likely to report physical childhood abuse, 13 times as likely to report childhood verbal abuse, and more than 4 times as likely to report childhood emotional neglect. In addition, ISOs with higher ACE scores have been found to be at increased risk for substance abuse (Levenson, 2015) and for criminal diversity and persistence (Levenson & Socia, 2015).

ISOs' perceptions of early maltreatment events in their lives have been found to affect their styles of coping with psychosocial stressors and related affect. For example, sex offenders who experienced violence in childhood attributed the locus of control to external sources and were then likely to identify with the aggressor to compensate for feelings of powerlessness or vulnerability (Abbiati et al., 2014). In family environments where there is maltreatment and dysfunction, a lack of appropriate models of emotional and behavioral regulation, along with distorted schema about relationships, may reinforce maladaptive coping behaviors (Bloom & Farragher, 2013; Cicchetti & Banny, 2014; Patterson et al., 1990; Rutter & Sroufe, 2000; Young et al., 2003). Sexualized coping can offer a way of soothing distress and/or meeting needs for intimacy, affection, attention, and control, and this may be particularly true for ISOs with a childhood history of sexual abuse (Levenson, 2014). Molestation in childhood can make a unique contribution to sexually abusive behavior through a number of avenues: compensation for feelings of powerlessness, social learning by which individuals model their own abuser's behavior and distorted thinking, or through the association of sexual arousal with adult–child sexual activity (Seto, 2008).

### **Proposed Model**

We propose that adverse conditions in childhood, using the ACE framework and attachment theory, can lead to a number of negative psychosocial and behavioral outcomes, including sexual offending. These psychological and social outcomes are very similar to the criminogenic needs (CNs) that have been identified as associated with sexually violent behaviors (Andrews & Bonta, 2010; Hanson, Bourgon, Helmus, &



**Figure 1.** Model of adverse childhood experience to sex offending behaviors.

Hodgson, 2009). These CNs include deficits in arousal control, emotional regulation, intimacy and relationship skills, problem solving, self-monitoring, social skills, and victim awareness and empathy, as well as a lack of family support networks, minimal offense responsibility, and sexually unhealthy attitudes (McGrath, Cumming, Burchard, Zeoli, & Ellerby, 2010, pp. 64–65). As such, it appears that both the ACE and attachment frameworks support the connection between abusive, neglectful, and/or chaotic household environments and the development of CNs that contribute to sexually abusive behavior. As also shown previously, there is a link between these two frameworks, as ACE exposure is associated with the development of insecure attachment systems.

We are proposing that the connection between ACEs and CNs can be explained using attachment theory as the link. ACEs lead to insecure attachments in individuals. Insecure attachments lead to psychological and social deficits that are consistent with CNs. These CNs are the risk factors associated with sexual offending behaviors, and the more risk factors that someone has, the more likely it is that that individual will offend. Attachment theory therefore offers an explanation as to why ACEs are so damaging and ultimately contribute to sexually violent behaviors. A visual representation of the model is shown in Figure 1.

## Implications

There are a number of implications that can be drawn from viewing sexually violent behaviors through the lens of trauma and attachment. These implications are important to consider in clinical practice, for devising empirically supported policies and for future research.

## Practice

The literature reviewed above emphasizes the strong link between trauma and later criminal behavior, indicating that among the underlying factors contributing to sexual offending behaviors may be childhood trauma itself. Therefore, interventions for ISOs that are focused simply on cognitive reframing skills or relapse prevention may not adequately address some important root causes of the sexual offending behaviors. In fact, Andrews and Bonta (2010) opined that when assessing CNs, victimization experiences should be considered and integrated into treatment planning.

One of the empirically effective approaches for sex offenders is the risk–needs–responsivity (RNR) model (Andrews & Bonta, 2010; Hanson et al., 2009) that emphasizes the

importance of individualized assessment and the need to tailor treatment planning to risk factors, CNs, and methods that fit well with unique characteristics to maximize client engagement. This approach is aimed at providing treatment that is cognizant of, and responsive to, the personal psychological needs and circumstances of each client (Andrews & Bonta, 2010). In spite of this emphasis on individualized assessment and intervention planning, there are few guidelines for practitioners to incorporate manifestations and consequences of a client’s trauma history. Currently, there are three promising models that have the potential to address this gap: trauma informed care (TIC), schema-focused therapy, and attachment-based interventions. All provide salient principles that can be easily integrated into traditional cognitive behavioral RNR treatment programs.

**TIC.** TIC is an approach that acknowledges the prevalence of early adversity and the impact of traumatic events on subsequent high-risk behaviors (Harris & Falot, 2001; Substance Abuse and Mental Health Services Administration, 2013). While TIC might sometimes include trauma resolution therapy, TIC may not specifically target details of the traumatic experiences. Rather, TIC attempts to create a safe and empowering setting that values the subjective experience of the client and emphasizes that the client’s own individualized interpretation of past trauma is a critical component to the healing process (Bloom & Farragher, 2013; Harris & Falot, 2001). Creating a safe therapeutic environment promotes a corrective emotional experience by which clients can experience compassionate and respectful relationships—the very characteristics that are absent in pathogenic households which impede healthy attachment and bonding (Levenson, 2014).

Boundary-violating behaviors tend to reflect maladaptive coping efforts designed to reenact and master previous trauma or to attempt to protect oneself from perceived threats in the environment (Whitfield, 1998). Moreover, sex can be used in many ways to meet emotional needs, and it offers opportunities to feel accepted, attractive, desirable, powerful, or close to someone. Sex also feels good, providing immediate physical gratification and something to look forward to or distract them from painful emotions (Levenson & Willis, 2014). When clinicians view sexually abusive behavior through this lens of early trauma and attachment disruption, they can better target the relational intimacy deficits that can raise risk for reoffense (Allan, Grace, Rutherford, & Hudson, 2007; I. A. Elliott, Eldridge, Ashfield, & Beech, 2010; Hanson & Harris, 1998; Levenson, 2014; Marshall, 1989; Thornton, 2002).

Using clients’ own interpretations of traumatic events, practitioners attempt to understand how the meaning attached to these experiences has influenced the development of maladaptive core schema about oneself and expectations of others (Levenson et al., 2014). Central to TIC is the core principle of modeling healthy relationship skills and boundaries, as well as avoiding the replication of disempowering interpersonal patterns within the helping relationship (Covington & Bloom, 2007). Considering the prevalence of child maltreatment and

family dysfunction in the sex offender population, trauma-informed models of practice are emerging as a viable approach to working with these challenging clients (Levenson, 2014).

As demonstrated by the literatures on both ACE and attachment, survivors of chronic and pervasive trauma develop a number of maladaptive coping strategies to manage their emotional pain and to avoid being vulnerable. As discussed previously, many of these challenges fall within the domain of interpersonal relationship deficits. Therefore, a critical component of interventions with ISOs should focus on intimacy and relational patterns. By using the therapeutic alliance to model healthy relationships, clinicians can create opportunities for rehearsal of new skills in the treatment setting (Teyber & McClure, 2011). TIC emphasizes the use of the counseling experience to engage clients in mutual, empathic, empowering relationships (Bloom & Covington, 2008; Covington, 2007; Harris & Fallot, 2001; Loper et al., 2008; Teyber & McClure, 2011).

**Schema-focused therapy.** A predominant focus in contemporary treatment programs for ISOs has been on identifying and restructuring cognitive distortions, such as minimization, rationalization, and externalization of responsibility for offending. The most recent survey of North American sex offender treatment programs found that changing distorted thinking supportive of criminal and sexually abusive behavior, along with offense responsibility, was considered important treatment target in a majority of programs (McGrath et al., 2010). Thus, a focus on thematic belief systems might be particularly beneficial for ISOs in understanding and helping to correct the distorted thinking that can underpin attitudes that are tolerant of sexual assault.

Given the recent research documenting a high prevalence of ACEs in samples of ISOs (Levenson et al., 2014), it is not surprising that these clients often present with prominent distorted cognitive schema. A recent study in the Netherlands found that themes of abandonment, isolation, defectiveness, subjugation, and self-sacrifice were overrepresented in child molesters compared to ISOs with adult victims and nonsexual violent offenders (Chakhssi et al., 2013). Repeatedly challenging cognitive distortions as offense justifications neglects the presence of maladaptive schema, and confrontational approaches can recreate early disempowering experiences, contributing to disengagement and treatment dropout. In summary, addressing the underlying origins of distorted thinking might be more effective than a focus on isolated cognitive distortions.

**Attachment-based interventions.** Another approach to consider in sex offender treatment is to use an attachment-based therapeutic intervention to reduce the CNs associated with sex offending. Such an approach would focus on providing ISOs with new relational experiences that would be aimed at helping them form more secure attachment styles, as is done in child–parent relationship therapy (CPRT) for example (Bratton, Landreth, Kellam, & Blackard, 2006). CPRT focuses on creating empathic and attuned relationships between parents and children in order to repair attachment disruptions (Bratton et al.,

2006; Bratton, Landreth, & Lin, 2010). Through these reparative relationship experiences, children have demonstrated a reduction in behavioral problems and higher levels of empathy (Bratton et al., 2010), illustrating that through attachment-based interventions, individuals can demonstrate improved prosocial behaviors and a reduction in CNs, such as empathy.

If ISOs were able to experience similar relational experiences as fostered in CPRT, they too could demonstrate a greater capacity to regulate behavior and affect, improve intimacy and social skills, and develop greater empathy toward others. Because self-regulatory and intimacy deficits are dynamic risk factors for sexual reoffense (Allan et al., 2007; I. A. Elliott et al., 2010; Hanson & Harris, 1998), these changes, facilitated by treatment providers, could significantly reduce CNs and risk levels. Currently, there is research that demonstrates that ISOs do become more securely attached in the context of treatment, even if the treatment is not specifically an attachment-based treatment (Grady, Swett, & Shields, 2014). In addition, there is also some preliminary research that indicates that when ISOs develop more secure attachment styles, CNs are reduced (Grady, Swett, & Shields, 2014). However, more research is needed to demonstrate that when treatment programs attend to the therapeutic relationship and immediacy interventions (i.e., those that attend to the relationship and any ruptures), there is a significant change in attachment styles that ultimately correlate to a reduction in CNs and, ultimately, a reduction in recidivism.

In addition to modifying the microinterventions with ISOs to include attention to trauma and attachment, primary prevention strategies should include services for at-risk families to help them develop positive/prosocial parenting skills as well as to teach strategies to manage stressors and help create health family structures that minimize chaos and abuse. Earlier interventions are also needed that identify children who are exposed to ACEs, in order to compensate for the detriments of early adversity. On a macro level, stressors such as poverty, community violence, food insecurity, and housing instability should all be examined in individual communities to ascertain how to best reduce the prevalence of these contributors to family violence and child maltreatment.

### Policy

Social policies that recognize the prevalence and enduring impact of early adversity are crucial. The cumulative stress of childhood trauma leads to social, emotional, and cognitive impairment, facilitates the adoption of high-risk coping strategies, and culminates in the development of a variety of psychosocial problems including criminal behavior (Felitti et al., 1998). ACEs are now seen as a public health crisis (Anda et al., 2010; Felitti, 2002), and prioritizing preventive interventions would benefit youth growing up in disadvantaged environments as well as society as a whole.

American social policies have been designed to respond to problems of child maltreatment in ways that strongly prioritize the role of offender punishment and child placement over primary prevention. There is a compelling research literature

documenting that children exposed to early adversity are at increased risk for polyvictimization and subsequently for enduring pervasive trauma symptoms (Finkelhor, Turner, Hamby, & Ormrod, 2011). As well, children who experience chronic maltreatment, neglect, and household dysfunction are more likely than nonabused youngsters to become the addicts and criminal offenders of the future (DeHart, 2009; DeHart, Lynch, Belknap, Dass-Brailsford, & Green, 2014; Harlow, 1999; Mersky, Topitzes, & Reynolds, 2012; Topitzes, Mersky, & Reynolds, 2012; Widom & Maxfield, 2001). While criminal justice initiatives are heavily funded, prevention programs and social services are frequently among the first to be eliminated from legislative budgets. However, it is critical for victims of child maltreatment to receive services and counseling, for abusive parents to have access to intervention programs that assist them to enhance family functioning and strengthen attachment bonds with their children, and for the criminal justice community to recognize that self-regulation difficulties may be symptomatic of ACEs (Baglivio et al., 2014). Investing in a comprehensive array of prevention and early intervention services for abused children and at-risk families is an essential step in halting the cycles of interpersonal violence and addiction in our communities (Anda et al., 2010; Baglivio et al., 2014).

A final policy consideration is the establishment of meaningful reentry support services for convicted ISOs. Following release from prison, sex offender registries create social stigma and pragmatic barriers to community reintegration, including employment and academic obstacles, housing instability, and estrangement from family support systems (Jeglic, Mercado, & Levenson, 2011; Levenson & Cotter, 2005; Tewksbury, 2005). Few reentry services exist in many communities to help ISOs rebuild a productive and purposeful life, and many of these clients report profound disempowerment, hopelessness, shame, and isolation (Jeglic et al., 2011; Levenson & Cotter, 2005; Levenson, D'Amora, & Hern, 2007; Mercado, Alvarez, & Levenson, 2008; Tewksbury & Mustaine, 2009). Facing formidable obstacles to community reentry, some ISOs express a sense of despondence that challenges their already limited coping skills. The psychosocial stressors associated with sex offender registration can reinforce feelings of childhood trauma (i.e., isolation, shame, and rejection) which in some cases activate the very dynamic risk factors that exacerbate the likelihood of reoffending. Current policies aimed at reducing sexual violence focus on restricting and monitoring convicted ISOs (LaFond, 2005; Leon, 2011; Levenson & D'Amora, 2007). Yet, these policies have garnered little empirical support (Ackerman, Sacks, & Greenberg, 2012; Agan, 2011; Sandler, Freeman, & Socia, 2008; Zgoba et al., 2015). Given those findings paired with the current implications, government resources may be better applied to prevention of ACEs in order to achieve a greater impact on long-term reduction of sexual violence.

### Research

We are proposing a theoretical connection in the proposed model. While there is a large body of empirical support for

each of the aspects of the model, more research needs to be conducted to test the strength of the model as an explanatory theory as well as an intervention approach. As practitioners begin to more consistently incorporate trauma-informed and/or attachment-based interventions into sex offender treatment programs, research studies should measure the effectiveness of such interventions on recidivism and dynamic risk indicators.

It is critical to examine the direct and indirect effects of ACEs on attachment and sexual offending. While we have explored throughout this article the associations between these constructs, we cannot determine the direction of this relationship nor what other factors might influence the effects of ACEs on attachment and sexual offending. Attachment theory provides an explanatory frame to organize how ACEs directly influence the attachment styles that potentially lead to a number of interpersonal deficits. However, it is unclear whether these relationships have a moderating or mediating effect on sexual offending. As such, more research on this model specifically should be conducted to further examine the relationships between these constructs.

Other implications for research include investigations that identify the ways in which specific types or combinations of ACEs might contribute to sexually violent behavior. While there is some preliminary research (Forsman, Johansson, Santtila, Sandnabba, & Långström, 2015; Jespersen, Lalumière, & Seto, 2009; Levenson & Socia, 2015) that explores the types of ACEs that are associated with sexually abusive behavior, much more research is needed to better understand these connections and direct the ways that treatment programs can use such knowledge to effectively intervene. These questions would lend themselves to structural equation modeling to clarify the temporal and causal relationships between distal experiences and proximal behaviors.

A final area for empirical exploration is to evaluate the specific ways in which environmental factors, such as poverty, racism, and community violence, can contribute to sexual violence. Interestingly, a recent multivariate analysis revealed that when controlling for childhood socioeconomic status, gender, minority race, marital status, and education, significant bivariate associations between child maltreatment and crime were not maintained (Jung, Herrenkohl, Klika, Lee, & Brown, 2014). Again, while there is some preliminary research on extrafamilial factors and the subsequent behavioral and social outcomes in the general population and in nonsexual criminal samples (Hooven, Nurius, Logan-Greene, & Thompson, 2012; Mersky et al., 2012; Nurius, Uehara, & Zatzick, 2013; Topitzes et al., 2012), more research is needed to understand the independent and collective influences of such factors on criminal behavior.

### Conclusion

Childhood trauma can lead to attachment insecurity, both of which have been associated with the perpetration of criminal behaviors. There is a robust body of literature demonstrating how early adversity can have detrimental impacts throughout

the life span. However, in the context of sexual offending, the two frameworks of ACEs and attachment theory have not been linked. Attachment theory offers an explanatory connection between ACE exposure and later sexual violence. The proposed model moves beyond a description of how ACEs are linked to sexual offending. Attachment theory provides an explanation as to why and how these specific experiences have such an enduring impact. By using attachment theory, researchers, clinicians, and policy makers can organize interventions that focus on creating and shifting to secure attachment styles in order to reduce the risk factors associated with sexual offending behaviors. The link between trauma, attachment, and sexual offending warrants further consideration as a framework for understanding and addressing intervention and prevention efforts that reduce the likelihood of sexual victimization.

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### References

- Abbiati, M., Mezzo, B., Waeny-Desponds, J., Minervini, J., Mormont, C., & Gravier, B. (2014). Victimization in childhood of male sex offenders: Relationship between violence experienced and subsequent offenses through discourse analysis. *Victims & Offenders, 9*, 234–254.
- Ackerman, A. R., Sacks, M., & Greenberg, D. F. (2012). Legislation targeting sex offenders: Are recent policies effective in reducing rape? *Justice Quarterly, 29*, 858–887.
- Agan, A. Y. (2011). Sex offender registries: Fear without function? *Journal of Law and Economics, 54*, 207–239.
- Allan, M., Grace, R. C., Rutherford, B., & Hudson, S. M. (2007). Psychometric assessment of dynamic risk factors for child molesters. *Sexual Abuse: A Journal of Research & Treatment, 19*, 347–368.
- Anda, R. F., Butchart, A., Felitti, V. J., & Brown, D. W. (2010). Building a framework for global surveillance of the public health implications of adverse childhood experiences. *American Journal of Preventive Medicine, 39*, 93–98.
- Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., . . . Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. *European Archives of Psychiatry and Clinical Neuroscience, 256*, 174–186.
- Andrews, D. A., & Bonta, J. (2010). Rehabilitating criminal justice policy and practice. *Psychology, Public Policy, and Law, 16*, 39–55.
- Baer, J. C., & Martinez, C. D. (2006). Child maltreatment and insecure attachment: A meta-analysis. *Journal of Reproductive and Infant Psychology, 24*, 187–197. doi:10.1080/02646830600821231
- Baglivio, M. T., Epps, N., Swartz, K., Huq, M. S., Sheer, A., & Hardt, N. S. (2014). The prevalence of Adverse Childhood Experiences (ACE) in the lives of juvenile offenders. *Journal of Juvenile Justice, 3*, 1–23.
- Beech, A. R., & Mitchell, I. J. (2005). A neurobiological perspective on attachment problems in sexual offenders and the role of selective serotonin re-uptake inhibitors in the treatment of such problems. *Clinical Psychology Review, 25*, 153–182.
- Benoit, D. (2004). Infant-parent attachment: Definitions, types, antecedents, measurement and outcomes. *Paediatric Child Health, 9*, 541–545.
- Bifulco, A., Kwon, J., Jacobs, C., Moran, P. M., Bunn, A., & Beer, N. (2006). Adult attachment style as mediator between childhood neglect/abuse and adult depression and anxiety. *Social Psychiatry and Psychiatric Epidemiology, 41*, 796–805.
- Black, M. C., Basile, K. C., Breiding, M. J., Smith, S. G., Walters, M. L., Merrick, M. T., . . . Stevens, M. R. (2011). *National intimate partner and sexual violence survey: 2010 summary report*. Centers for Disease Control. Retrieved from [http://www.cdc.gov/violenceprevention/pdf/nisvs\\_executive\\_summary-a.pdf](http://www.cdc.gov/violenceprevention/pdf/nisvs_executive_summary-a.pdf)
- Bloom, B., & Covington, S. (2008). Addressing the mental health needs of women offenders. In R. Gido & L. Dalley (Eds.), *Women's mental health issues across the criminal justice system* (pp. 160–176). Upper Saddle River, NJ: Prentice Hall.
- Bloom, S., & Farragher, B. (2013). *Restoring sanctuary: A new operating system for trauma-informed systems of care*. New York, NY: Oxford University Press.
- Bogaerts, S., Vanheule, S., & Declercq, F. (2005). Recalled parental bonding, adult attachment style, and personality disorders in child molesters: A comparative study. *Journal of Forensic Psychiatry and Psychology, 16*, 445–458. doi:10.1080/14789940500094524
- Bonnar-Kidd, K. K. (2010). Sexual offender laws and prevention of sexual violence or recidivism. *American Journal of Public Health, 100*, 412–419. doi:10.2105/AJPH.2008.153254
- Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1. Attachment* (2nd ed.). New York, NY: Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York, NY: Basic Books.
- Bratton, S., Landreth, G., Kellam, T., & Blackard, S. (2006). *Child parent relationship therapy (CPRT) treatment manual* [includes CD-ROM]. New York, NY: Brunner-Routledge.
- Bratton, S., Landreth, G., & Lin, Y. D. (2010). What the research shows about child parent relationship therapy (CPRT): A review of controlled outcome research. In J. Baggerly, D. Ray, & S. Bratton (Eds.), *Child-centered play therapy research: The evidence-base for effective practice* (pp. 269–294). Hoboken, NJ: Wiley.
- Bretherton, I. (1992). The origins of attachment theory: John Bowlby and Mary Ainsworth. *Developmental Psychology, 28*, 759–775.
- Bushman, B. J., Baumeister, R. F., & Phillips, C. M. (2001). Do people agree to improve their mood? Catharsis, beliefs, affect regulation opportunity, and aggressive responding. *Journal of Personality and Social Psychology, 81*, 17–32. doi:10.1037/0022-3514.81.1.17
- Centers for Disease Control and Prevention. (2004). *Sexual violence prevention: Beginning the dialogue*. Atlanta, GA: Author.
- Centers for Disease Control and Prevention. (2014). *Injury prevention & control: Division of violence prevention*. Retrieved from <http://www.cdc.gov/violenceprevention/acestudy/index.html>
- Chakhssi, F., Ruiters, C., & Bernstein, D. P. (2013). Early maladaptive cognitive schemas in child sexual offenders compared with sexual

- offenders against adults and nonsexual violent offenders: An exploratory study. *The Journal of Sexual Medicine*, *10*, 2201–2210.
- Cicchetti, D., & Banny, A. (2014). A developmental psychopathology perspective on child maltreatment. In M. Lewis & K. Rudolph (Eds.), *Handbook of developmental psychopathology* (pp. 723–741). New York, NY: Springer.
- Covington, S. (2007). The relational theory of women's psychological development: Implications for the criminal justice system. In R. Zaplin (Ed.), *Female offenders: Critical perspectives and effective interventions* (2nd ed., pp. 135–164). Gaithersburg, MD: Aspen.
- Covington, S., & Bloom, B. (2007). Gender responsive treatment and services in correctional settings. *Women & Therapy*, *29*, 9–33.
- Creeden, K. (2009). How trauma and attachment can impact neurodevelopment: Informing our understanding and treatment of sexual behavior problems. *Journal of Sexual Aggression*, *15*, 261–273.
- Crittenden, P. M. (1992). Treatment of anxious attachment in infancy and early childhood. *Developmental Psychopathology*, *4*, 575–602.
- Dartnall, E., & Jewkes, R. (2013). Sexual violence against women: The scope of the problem. *Best Practice and Research Clinical Obstetrics & Gynaecology*, *27*, 3–13. doi:org.proxycu.wrlc.org/10.1016/j.bpobgyn.2012.08.002
- DeHart, D. (2009). *Polyvictimization among girls in the juvenile justice system: Manifestations and associations to delinquency* (Report No. 22860). Washington, DC: U.S. Department of Justice.
- DeHart, D., Lynch, S., Belknap, J., Dass-Brailsford, P., & Green, B. (2014). Life history models of female offending: The roles of serious mental illness and trauma in women's pathways to jail. *Psychology of Women Quarterly*. doi:10.1177/0361684313494357
- DeKlyen, M., & Greenberg, M. T. (2008). Attachment and psychopathology in childhood. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 637–665). New York, NY: Guilford Press.
- Elliott, D. E., Bjelajac, P., Fallot, R. D., Markoff, L. S., & Reed, B. G. (2005). Trauma informed or trauma denied: Principles and implementation of trauma informed services for women. *Journal of Community Psychology*, *33*, 461–477.
- Elliott, I. A., Eldridge, H. J., Ashfield, S., & Beech, A. R. (2010). Exploring risk: Potential static, dynamic, protective and treatment factors in the clinical histories of female sex offenders. *Journal of Family Violence*, *25*, 595–602.
- Felitti, V. J. (2002). The relation between adverse childhood experiences and adult health: Turning gold into lead. *The Permanente Journal*, *6*, 44–47.
- Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., . . . Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) study. *American Journal of Preventive Medicine*, *14*, 245–258.
- Finkelhor, D., Turner, H. A., Hamby, S. L., & Ormrod, R. (2011). *Polyvictimization: Children's exposure to multiple types of violence, crime, and abuse*. Washington, DC: US Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- Ford, J. D., Chapman, J., Connor, D. F., & Cruise, K. R. (2012). Complex trauma and aggression in secure juvenile justice settings. *Criminal Justice and Behavior*, *39*, 694–724.
- Forsman, M., Johansson, A., Santtila, P., Sandnabba, K., & Långström, N. (2015). Sexually coercive behavior following childhood maltreatment. *Archives of Sexual Behavior*, *44*, 149–156.
- Fraley, R. C., & Shaver, P. R. (2000). Adult romantic attachments: Theoretical development, emerging controversies, and unanswered questions. *Review of General Psychology*, *4*, 132–154.
- Garcia-Moreno, C., Jansen, H. A., Ellsberg, M., Heise, L., & Watts, C. H. (2006). Prevalence of intimate partner violence: Findings from the WHO multi-country study on women's health and domestic violence. *The Lancet*, *368*, 1260–1269.
- Grady, M. D., Swett, L., & Shields, J. J. (2014). The impact of a sex offender treatment programme on the attachment styles of incarcerated male sexual offenders. *Journal of Sexual Aggression*. doi: 10.1080/13552600.2014.894148
- Hanson, R. K., Bourgon, G., Helmus, L., & Hodgson, S. (2009). The principles of effective correctional treatment also apply to sexual offenders: A meta-analysis. *Criminal Justice and Behavior*, *36*, 865–891.
- Hanson, R. K., & Harris, A. J. R. (1998). *Dynamic predictors of sexual recidivism*. Ottawa, ON: Department of the Solicitor General of Canada.
- Hanson, R. K., & Morton-Bourgon, K. (2005). The characteristics of persistent sexual offenders: A meta-analysis of recidivism studies. *Journal of Consulting and Clinical Psychology*, *73*, 1154–1163.
- Harlow, C. W. (1999). *Prior abuse reported by inmates and probationers*. Rockville, MD: U.S. Department of Justice.
- Harris, M. E., & Fallot, R. D. (2001). *Using trauma theory to design service systems*. San Francisco, CA: Jossey-Bass.
- Hazan, C., & Shaver, P. (1987). Conceptualizing romantic love as an attachment process. *Journal of Personality and Social Psychology*, *52*, 511–524. doi:10.1037/0022-3514.52.3.511
- Hooven, C., Nurius, P. S., Logan-Greene, P., & Thompson, E. A. (2012). Childhood violence exposure: Cumulative and specific effects on adult mental health. *Journal of Family Violence*, *27*, 511–522. doi:10.1007/s10896-012-9438-0
- Hudson, S. M., & Ward, T. (2000). Interpersonal competency in sex offenders. *Behavior Modification*, *24*, 494–527. Retrieved from <http://search.proquest.com.proxycu.wrlc.org/docview/221345418?accountid=9940>
- Hudson, S. M., Ward, T., & McCormack, J. C. (1999). Offense pathways in sexual offenders. *Journal of Interpersonal Violence*, *14*, 779–798. Retrieved from <http://search.proquest.com.proxycu.wrlc.org/docview/216848511?accountid=9940>
- Jakupcak, M., Lisak, D., & Roemer, L. (2002). The role of masculine ideology and masculine gender role stress in men's perpetration of aggression and violence in relationships. *Psychology of Men and Masculinity*, *3*, 97–106. doi:10.1037/1524-9220.3.2.97
- Jeglic, E., Mercado, C. C., & Levenson, J. S. (2011). The prevalence and correlates of depression and hopelessness among sex offenders subject to community notification and residence restriction legislation. *Journal of Criminal Justice*, *37*, 46–59.
- Jennings, W. G., Zgoba, K. M., Maschi, T., & Reingle, J. M. (2014). An empirical assessment of the overlap between sexual victimization and sex offending. *International Journal of Offender Therapy and Comparative Criminology*, *58*, 1466–1480.

- Jespersen, A. F., Lalumière, M. L., & Seto, M. C. (2009). Sexual abuse history among adult sex offenders and non-sex offenders: A meta-analysis. *Child Abuse & Neglect*, *33*, 179–192.
- Jung, H., Herrenkohl, T. I., Klika, J. B., Lee, J. O., & Brown, E. C. (2014). Does child maltreatment predict adult crime? Reexamining the question in a prospective study of gender differences, education, and marital status. *Journal of Interpersonal Violence*. doi: 0886260514552446
- Kafka, M. P. (2003). The monoamine hypothesis for the pathophysiology of paraphilic disorders. *Annals of the New York Academy of Sciences*, *989*, 86–94.
- Kohlberg, L., Lacrosse, J., Ricks, D., & Wolman, B. (1972). *Manual of child psychopathology*. New York, NY: McGraw-Hill.
- Krug, E. G., Dahlberg, L. L., Mercy, J. A., Zwi, A. B., & Lozano, R. (Eds.). (2002). *World report on violence and health*. Geneva, Switzerland: World Health Organization. Retrieved from [http://whqlib.doc.who.int/publications/2002/9241545615\\_eng.pdf](http://whqlib.doc.who.int/publications/2002/9241545615_eng.pdf)
- LaFond, J. Q. (2005). *Preventing sexual violence: How society should cope with sex offenders*. Washington, DC: American Psychological Association.
- Leon, C. (2011). *Sex fiends, perverts, and pedophiles: Understanding sex crime policy in America*. New York: New York University Press.
- Levenson, J. S. (2014). Incorporating trauma-informed care into sex offender treatment. *Journal of Sexual Aggression*, *20*, 9–22.
- Levenson, J. S. (2015). Adverse childhood experiences and subsequent substance abuse in a sample of sexual offenders: Implications for treatment and prevention. *Victims & Offenders*, 1–26. doi: 10.1080/15564886.2014.971478
- Levenson, J. S., & Cotter, L. P. (2005). The effect of Megan's Law on sex offender reintegration. *Journal of Contemporary Criminal Justice*, *21*, 49–66.
- Levenson, J. S., & D'Amora, D. A. (2007). Social policies designed to prevent sexual violence: The Emperor's new clothes? *Criminal Justice Policy Review*, *18*, 168–199.
- Levenson, J. S., D'Amora, D. A., & Hern, A. (2007). Megan's Law and its impact on community re-entry for sex offenders. *Behavioral Sciences & the Law*, *25*, 587–602.
- Levenson, J. S., & Socia, K. M. (2015). Adverse childhood experiences and arrest patterns in a sample of sexual offenders *Journal of Interpersonal Violence*. doi:10.1177/0886260515570751
- Levenson, J. S., & Willis, G. (2014). Trauma informed care with sexual offenders. In M. Carich (Ed.), *Safer society handbook of adult sexual offending assessment and treatment* (pp. 243–270). Brandon, VT: Safer Society Press.
- Levenson, J. S., Willis, G., & Prescott, D. (2014). Adverse childhood experiences in the lives of male sex offenders and implications for trauma-informed care. *Sexual Abuse: A Journal of Research & Treatment*. doi:10.1177/1079063214535819
- Loper, A. B., Mahmoodzadegan, N., & Warren, J. I. (2008). Childhood maltreatment and cluster B personality pathology in female serious offenders. *Sexual Abuse: A Journal of Research and Treatment*, *20*, 139–160.
- Lyn, T. S., & Burton, D. L. (2004). Adult attachment and sexual offender status. *American Journal of Orthopsychiatry*, *74*, 150–159. doi:10.1037/0002-9432.74.2.150
- Lyn, T. S., & Burton, D. L. (2005). Attachment, anger and anxiety of male sexual offenders. *Journal of Sexual Aggression*, *11*, 127–137.
- Main, M., & Solomon, J. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth strange situation. In M. T. Greenber, D. Cicchetti, & M. Cummings (Eds.), *Attachment in the preschool years: Theory, research, and intervention* (pp. 121–160). Chicago, IL: University of Chicago Press.
- Marshall, W. L. (1989). Intimacy, loneliness and sexual offenders. *Behaviour Research and Therapy*, *27*, 491–504. doi:10.1016/0005-7967(89)90083-1
- Marshall, W. L. (2010). The role of attachments, intimacy, and loneliness in the etiology and maintenance of sexual offending. *Sexual and Relationship Therapy*, *25*, 73–85. doi:10.1080/14681990903550191
- Masten, A. S., & Cicchetti, D. (2010). Developmental cascades. *Development and Psychopathology*, *22*, 491–495.
- McGrath, R., Cumming, G., Burchard, B., Zeoli, S., & Ellerby, L. (2010). *Current practices and emerging trends in sexual abuser management: The Safer Society 2009 North American Survey*. Brandon, VT: Safer Society Press.
- Mercado, C. C., Alvarez, S., & Levenson, J. S. (2008). The impact of specialized sex offender legislation on community re-entry. *Sexual Abuse: A Journal of Research & Treatment*, *20*, 188–205.
- Mersky, J. P., Topitzes, J., & Reynolds, A. J. (2012). Unsafe at any age: Linking childhood and adolescent maltreatment to delinquency and crime. *Journal of Research in Crime and Delinquency*, *49*, 295–318.
- Mikulincer, M., & Shaver, P. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York, NY: Guilford Press.
- Miner, M. H., Romine, R., Robinson, B. E., Berg, D., & Knight, R. A. (2014). Anxious attachment, social isolation, and indicators of sex drive and compulsivity: Predictors of child sexual abuse perpetration in adolescent males. *Sexual Abuse: A Journal of Research and Treatment*, 1–22. doi:10.1177/1079063214547585
- Mitchell, I. J., & Beech, A. R. (2011). Towards a neurobiological model of offending. *Clinical Psychology Review*, *31*, 872–888.
- Morton, N., & Browne, K. D. (1998). Theory and observation of attachment and its relation to child maltreatment: A review. *Child Abuse & Neglect*, *22*, 1093–1104.
- Murphy, A., Steele, M., Dube, S. R., Bate, J., Bonuck, K., Meissner, P., . . . Steele, H. (2014). Adverse childhood experiences questionnaire and adult attachment interview: Implications for parent child relationships. *Child Abuse & Neglect*, *38*, 224–233.
- National Sexual Violence Resource Center. (2005). *Worldwide sexual assault statistics*. Retrieved from <http://www.nsvrc.org/publications/fact-sheets/worldwide-sexual-assault-statistics>
- Nelson, E. E., & Panskepp, J. (1998). Brain substrates of infant-mother attachment, contributions of opioids, oxytocin, and norepinephrine. *Neuroscience and Biobehavioral Reviews*, *22*, 437–452.
- Nurius, P. S., Uehara, E., & Zatzick, D. F. (2013). Intersection of stress, social disadvantage, and life course processes: Reframing trauma and mental health. *American Journal of Psychiatric Rehabilitation*, *16*, 91–114. doi:10.1080/15487768.2013.789688
- Patterson, G. R., DeBaryshe, B. D., & Ramsey, E. (1990). A developmental perspective on antisocial behavior. *American Psychologist*, *44*, 329–335.

- Reavis, J., Looman, J., Franco, K., & Rojas, B. (2013). Adverse childhood experiences and adult criminality: How long must we live before we possess our own lives? *The Permanente Journal*, *17*, 44–48. doi:10.7812/TPP/12-072
- Riggs, S. A., & Jacobvitz, D. (2002). Expectant parents' representations of early attachment relationships: Associations with mental health and family history. *Journal of Consulting and Clinical Psychology*, *70*, 195–204.
- Riggs, S. A., & Kaminski, P. (2010). Childhood emotional abuse, adult attachment, and depression as predictors of relational adjustment and psychological aggression. *Journal of Aggression, Maltreatment and Trauma*, *19*, 75–104.
- Rosenstein, D. S., & Horowitz, H. A. (1996). Adolescent attachment and psychopathology. *Journal of Consulting and Clinical Psychology*, *64*, 244–253.
- Rutter, M., Kim-Cohen, J., & Maughan, B. (2006). Continuities and discontinuities in psychopathology between childhood and adult life. *Journal of Child Psychology and Psychiatry*, *47*, 276–295.
- Rutter, M., & Sroufe, L. (2000). Developmental psychopathology: Concepts and challenges. *Development and Psychopathology*, *12*, 265–296.
- Sandler, J. C., Freeman, N. J., & Socia, K. M. (2008). Does a watched pot boil? A time-series analysis of New York State's sex offender registration and notification law. *Psychology, Public Policy and Law*, *14*, 284–302.
- Substance Abuse and Mental Health Services Administration. (2013). *Trauma-informed care and trauma services*. Retrieved from <http://www.samhsa.gov/nctic/trauma.asp>
- Seto, M. C. (2008). *Pedophilia and sexual offending against children: Theory, assessment, and intervention*. Washington, DC: American Psychological Association.
- Shillkret, R., & Shillkret, C. J. (2011). Attachment theory. In J. Berzoff, L. M. Flanagan, & P. Hertz (Eds.), *Inside out and outside in: Psychodynamic clinical theory and contemporary multicultural contexts* (3rd ed., pp. 186–207). Lanham, MD: Rowman & Littlefield.
- Smallbone, S. W., & Dadds, M. R. (1998). Childhood attachment and adult attachment in incarcerated adult male sex offenders. *Journal of Interpersonal Violence*, *13*, 555–573. doi:10.1177/088626098013005001
- Taussig, H. N., & Culhane, S. E. (2010). Emotional maltreatment and psychosocial functioning in preadolescent youth placed in out-of-home care. *Journal of Aggression, Maltreatment and Trauma*, *19*, 52–74.
- Teicher, M., Andersen, S., Polcari, A., Andersen, C., & Navalta, C. (2002). Developmental neurobiology of childhood stress and trauma. *Psychiatric Clinics of North America*, *25*, 397–426.
- Tewksbury, R. (2005). Collateral consequences of sex offender registration. *Journal of Contemporary Criminal Justice*, *21*, 67–82.
- Tewksbury, R., & Mustaine, E. (2009). Stress and collateral consequences for registered sex offenders. *Journal of Public Management and Social Policy*, *15*, 215–239.
- Teyber, E., & McClure, F. (2011). *Interpersonal process in therapy: An integrative model* (6th ed.). Florence, KY: Brooks Cole.
- Thornton, D. (2002). Constructing and testing a framing for dynamic risk assessment. *Sexual Abuse: A Journal of Research and Treatment*, *14*, 139–153.
- Topitzes, J., Mersky, J. P., & Reynolds, A. J. (2012). From child maltreatment to violent offending: An examination of mixed-gender and gender-specific models. *Journal of Interpersonal Violence*, *27*, 2322–2347.
- Trinkett, P. K., Noll, J. G., & Putnam, F. W. (2011). The impact of sexual abuse on female development: Lessons from a multigenerational, longitudinal research study. *Development and Psychopathology*, *23*, 453–476. doi:10.1017/S0954579411000174
- Unger, J. M., & De Luca, R. V. (2014). The relationship between childhood physical abuse and adult attachment styles. *Journal of Family Violence*, *29*, 223–234. doi:10.1007/s10896-014-9588-3
- Vondra, J. I., Shaw, D. S., Chrisman, J., Cohen, L., Swearingen, E., & Owens, E. B. (2001). Attachment stability and emotional and behavioral regulation from infancy to preschool age. *Development and Psychopathology*, *13*, 13–33. doi:10.1017/S095457940100102X
- Ward, T. (2014). The explanation of sexual offending: From single factor theories to integrative pluralism. *Journal of Sexual Aggression*, 1–12. doi:10.1080/13552600.2013.870242
- Ward, T., Hudson, S. M., & Marshall, W. L. (1996). Attachment style in sex offenders: A preliminary study. *Journal of Sex Research*, *33*, 17–26. doi:10.1080/00224499609551811
- Whitfield, C. L. (1998). Adverse childhood experiences and trauma. *American Journal of Preventive Medicine*, *14*, 361–364.
- Widom, C. S., & Maxfield, M. G. (2001). *An update on the "Cycle of Violence."* Washington, DC: US Department of Justice, Office of Justice Programs, National Institute of Justice.
- Young, J. E., Klosko, J. S., & Weishaar, M. E. (2003). *Schema therapy: A practitioner's guide*. New York, NY: Guilford Press.
- Zgoba, K., Miner, M., Levenson, J. S., Knight, R. A., Letourneau, E., & Thornton, D. (2015). The Adam Walsh Act: An examination of sex offender risk classification systems. *Sexual Abuse: A Journal of Research & Treatment*. doi:1079063215569543

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