



Pergamon

Aggression and Violent Behavior  
6 (2001) 357–373

**AGGRESSION  
AND  
VIOLENT  
BEHAVIOR**

## A review of conceptual models explaining the effects of child sexual abuse

Kurt A. Freeman\*, Tracy L. Morris

*West Virginia University, Morgantown, WV, USA*

Received 18 June 1999; accepted 21 June 1999

---

### Abstract

Based on clinical experience and empirical literature demonstrating that child sexual abuse (CSA) often results in initial and long-term adverse outcomes, researchers have explored why such problems occur. Specifically, starting in the mid 1980s and continuing into the 1990s, several authors proposed conceptual models to explain the negative effects of CSA. Such models have been based on diverse theoretical premises. The purpose of the present article is to provide a general summary review of various conceptual models. Following the review, the current state of the literature on this topic is discussed, as are suggested future directions for research. © 2001 Elsevier Science Ltd. All rights reserved.

*Keywords:* Child sexual abuse; Conceptual models; Review

---

Although sexual contact between adults and children has been observed and documented for many centuries (Wasserman & Rosenfeld, 1992), child sexual abuse (CSA) did not become recognized as a significant social problem in the United States until the 1980s (Chantler et al., 1993). Such recognition led to increased efforts directed toward documenting its prevalence and understanding the impact of such abuse and its associated variables. It is now estimated that 3 to 25% of men and 11 to 62% of women in the United States experience CSA (for review, see Salter, 1992). Additionally, researchers have documented that sexually abused children are likely to experience a variety of adverse reactions, many of which persist

\* Corresponding author. Counseling Psychology Program, Pacific University, 511 SW 10th, Suite 400, Portland, OR 97205, USA. Tel.: +1-503-352-2600; fax: +1-503-228-7120.

*E-mail address:* freemank@pacificu.edu (K.A. Freeman).

into adulthood (for reviews, see Beitchman et al., 1991, Beitchman et al., 1992; Browne & Finkelhor, 1986; Finkelhor, 1990; Kendall-Tackett et al., 1993).

Based on clinical experience and literature documenting that CSA often leads to adverse reactions in the victims, researchers have begun to direct their efforts toward better understanding why CSA, and its associated variables, adversely impact people. Starting in the 1980s, several authors proposed conceptual models to explain the occurrence of problems following CSA as a means of providing a framework for understanding the causal mechanisms involved (Finkelhor, 1988). Since then, numerous theoretical models accounting for the effects of CSA have been published. The purpose of the present article is to provide a review of those conceptual models. Although the review includes numerous models, it is not meant to be exhaustive. Rather, several models from diverse perspectives are reviewed to highlight current thinking on this topic. Thus, the review includes two multiple dynamics models (Finkelhor & Browne, 1985; Summit, 1983) as well as an extension of the former (Feiring, Taska, & Lewis, 1996), an information-processing model (Burgess, Hartman, Wolbert, & Grant, 1987), posttraumatic stress disorder (PTSD) conceptualization (Briere, 1992; Herman, 1992; Kiser et al., 1988; Lindberg & Distad, 1985; Wolfe, Gentile, & Wolfe, 1989), four developmental models (Alexander, 1992; Cole & Putnam, 1992; Putnam, 1990; Spaccarelli, 1994), and three models based on various behavioral learning principles (Freeman & Morris, 1999; Hoier et al., 1992; Polusny & Follette, 1995). These models were selected for review because they represent the diverse ways in which the effects of CSA have been conceptualized. Further, the current fragmented approach to understanding CSA is highlighted through discussion of these diverse perspectives. Following the review, a discussion regarding the state of the literature will be provided, and future directions of the literature on the topic suggested.

## 1. Review of conceptual models

### 1.1. Multiple dynamics models

Several authors have proposed conceptual models that attempt to explain the effects of CSA by describing how particular aspects of the abuse situation can lead to negative outcomes. These perspectives are considered “multiple dynamics” models because they are concerned with the influence of multiple factors related to the abusive situation, not just the abusive acts.<sup>1</sup>

#### 1.1.1. Child sexual abuse accommodation syndrome

In 1983, Summit provided an account of the effects of incest on females based on clinical experiences. In his view, the set of responses observed in female victims of sexual

<sup>1</sup> Other models reviewed in this paper describe the influence of factors beyond the actual abusive acts in explaining the effects of CSA. However, those presented in this section are labeled “Multiple Dynamics” models because the authors categorized the influences of interest into general categories, or dynamics, that are said to influence how someone reacts to CSA.

abuse are best described as a syndrome that, "... allows for the immediate survival of the child within the family but which tends to isolate the child from eventual acceptance, credibility or empathy within the larger society" (p. 179). Summit's CSA Accommodation Syndrome represents common dynamics, or characteristics, that result in the most frequently observed victim behaviors. The Accommodation Syndrome includes five categories describing situations that result in negative impact: (a) secrecy; (b) helplessness; (c) entrapment and accommodation; (d) delayed, conflicted, and unconvincing disclosure; and (e) retraction.

The first two categories, *secrecy* and *helplessness*, describe situations or environments that increase the likelihood that abuse will occur either unnoticed or be ignored by other adults. Through exposure to such situations, the child learns the abuse situation is "bad" and "shameful" and that the child is to blame because the child cannot stop the abuse. *Entrapment and accommodation*, the third category, occurs when the child either does not seek or does not receive immediate protection from the abuse, thus forcing adaptation to the situation of continual sexual abuse. Through this adaptation to and accommodation of the reality of the ongoing abuse, the child develops survival skills, such as pathological dependency, domestic martyrdom (assuming the role of a parent and taking care of the rest of the family), self-punishment, self-mutilation, substance abuse, selective restructuring of reality, and multiple personalities. These accommodation mechanisms allow the child to function in, and cope with, the abusive environment. *Disclosure*, the fourth category of the syndrome, describes the situation that results from a breakdown of accommodation mechanisms, resulting in the child no longer functioning in the current environment. This leads the child to disclose outside of the family. However, because the child is unlikely to be believed, and because of the martyred obligation to preserve the family, the child typically recants the disclosure of abuse. This describes the fifth category of Summit's syndrome, *retraction*. In the future, the child no longer complains about the abuse because the lie about the falseness of the disclosure was more readily accepted than the original disclosure.

### 1.1.2. Traumagenic dynamics

To expand on the understanding of how CSA affects people, Finkelhor and Browne (1985) provided a conceptualization for the impact of CSA based on four trauma-causing factors called traumagenic dynamics. According to the authors, these dynamics can occur in many types of trauma. However, they interact in a particular manner, given the occurrence of sexual abuse, making it a unique form of trauma. The first dynamic, *traumatic sexualization*, involves the process through which a child's sexuality is shaped in an inappropriate manner due to abuse. This results in several effects, including repetitive sexual behaviors (e.g., masturbation); promiscuous and compulsive sexual behavior; a higher risk for prostitution; sexually victimizing others; a heightened awareness of sexual issues; confusion about sexual identity, norms, and standards; and developing negative connotations associated with sex, leading to an aversion to sex and intimacy. The second dynamic, *betrayal*, becomes significant when the child realizes that exploitation by a trusted individual has occurred through sexual acts or when a nonabusing family member is either unable or unwilling to protect the child. Victim reactions suggested to result from this dynamic include grief

reactions and depression over loss of a trusted figure; a tendency toward relationships that are psychologically, physically, and sexually abusive; increased amounts of hostility and anger; and marital difficulties. *Powerlessness*, the third dynamic, develops when the child's attempts to avoid or terminate the abuse are continually ineffective. Problems arising from this dynamic include fear and anxiety, impaired sense of efficacy and coping skills, and overcompensation for powerlessness in the form of a dysfunctional need to control or dominate others. *Stigmatization*, the final traumagenic dynamic, refers to negative implications of the abuse experience (e.g., badness, shame, guilt) that develop via communication to the child. For example, shame and guilt on the part of the child may occur when the perpetrator blames or demeans the child for the abuse or pressures him or her for secrecy. In addition, stigmatization may be reinforced by attitudes expressed by others (e.g., "Only naughty girls do those sorts of things"). The effects of this dynamic on the child include guilt, shame, and a sense of being different from others based on the belief that no one else has had similar experiences.

The above four dynamics do not apply solely to abuse events (Finkelhor & Browne, 1985). Rather, the authors suggest that it is important to consider the amount of trauma present prior to the actual abuse event(s) as well as what others (e.g., therapists) communicate to the victim about the abuse. These events also may contribute to the amount of trauma the child experiences and, thus, need to be considered when developing a comprehensive understanding of why problems occur after a person experiences CSA.

Building on Finkelhor and Browne's (1985) work, Feiring et al. (1996) recently discussed in greater detail the role of stigmatization in outcomes of CSA. These authors proposed that CSA is likely to lead to the strong negative self-evaluative emotion of shame, and that shame rather than guilt is the central emotion of stigmatization. Based on a cognitive psychological perspective, cognitive attribution processes (i.e., internality, stability, globality) are used to account for adverse reactions following CSA. Specifically, development of internal, stable, global attributions regarding negative abuse events lead to shame. Thus, according to their model, CSA leads to shame via cognitive attributions about the abuse, and shame leads to poor adjustment. Also, the model allows for abuse to influence shame and adjustment directly, although the central premise is that adjustment is mediated largely by what the child thinks about the abuse.

### *1.1.3. Critique of the multiple dynamics models*

Summit's (1983) and Finkelhor and Browne's (1985) multiple dynamics models represent some of the earliest attempts at providing a unified framework for understanding why CSA results in adverse reactions. As such, they offered a much-needed beginning to the process of providing conceptual frameworks for understanding the myriad effects of CSA. Despite this contribution to the field, the models are lacking in any empirical base. Authors of both models state that they used clinical experience, rather than any empirical or experimental data, to develop their theories about the effects of CSA. Although clinical expertise can provide an appropriate context for theorizing, one is left wondering about the reliability and generality of the models when no supporting empirical evidence is present.

In contrast, Feiring et al.'s (1996) extension of Finkelhor and Browne's model is based on literature on attributions and the effect of such cognitive processes on behavior. Thus, it (at

least, potentially) has greater generality. However, this conceptualization appears limited in that it focuses solely on one potential determinant—shame—of adverse reactions experienced by people who were sexually abused as children. Further, unlike the other models reviewed in this section, Feiring and colleagues' conceptualization is less concerned with the potential impact of multiple influences on how people respond to CSA.

### 1.2. *Information-processing model*

Whereas Summit's (1983) CSA Accommodation Syndrome and Finkelhor and Browne's (1985) Traumagenic Dynamics Model were not based on any particular psychological ideology, Burgess et al. (1987) developed a conceptual model based on information-processing theory as a means of explaining the effects of CSA. It is based on the assumption that resolution of the traumatic event(s) will not occur until memory of the event(s) has been transferred from active, or present, memory to past memory. This resolution happens when sufficient processing of the event occurs, allowing for storage of the information. However, "when a traumatic event is not resolved and remains either in active memory or [is] defended by a cognitive mechanism . . .," (p. 34) trauma encapsulation occurs. If either occur, the person continually experiences the event at both conscious and unconscious levels and is at greater risk of experiencing posttraumatic stress disorder (PTSD; Burgess et al., 1987; Rew, 1989).

Trauma encapsulation is said to develop when the person's conscious awareness of the trauma is defended, thus allowing the person to function in daily life without adequately processing the trauma. This encapsulation involves a variety of defense mechanisms that protect the individual. Those defense mechanisms are dissociation, fragmentation, drive disharmony, repression, splitting, suppression, and compartmentalization (Burgess et al., 1987). *Dissociation* from the traumatic event occurs when the "mind fragments psychic integrity in the service of survival" (p. 34). This results in the child diverting attention away from the sexual abuse event. A *fragmentation* of the ego may occur when there is a disruption in the integration of the different personality functions (e.g., sense of self, memory, learning), causing a division or splitting of these functions. *Drive disharmony* results in the disruption of the functioning of the body's arousal mechanisms, causing either avoidance responses, excessive activity level, or continuous physical complaints. *Repression* results in a blocking out of the traumatic event; dropping it from memory, the individual is thus unable to recall the event, even when provided with prompts. *Splitting* involves conflict between a person's instinct demands and the reality commands of the environment. *Suppression* results in the child's ability to recall certain aspects of the traumatic event only when cues are provided. Finally, *compartmentalization* develops when memory of the abuse event can only be accessed through projection or direct confrontation.

#### 1.2.1. *Critique of information-processing model*

Burgess et al.'s (1987) model represents the first attempt to provide a conceptual understanding of the effects of CSA based on a particular psychological theory and, as such, is based on a significant body of research. Despite this, however, there are concerns with the

model. Specifically, the authors provide little information as to how to know when “adequate processing” has occurred so that memories of the CSA move from active to past memory. Presumably, one could only infer this has happened once a person no longer displays any behavioral disturbances that are causally related to the CSA. Further, and related to the first concern, the authors use hypothetical constructs as explanatory mechanisms for behavior patterns observed in people who experienced CSA. This is problematic because it may detract from the search for observable, verifiable causal variables.

### *1.3. Effects of CSA as posttraumatic stress disorder*

Since the mid 1980s, some researchers and clinicians have explored the application of the framework of PTSD to the consequences of CSA (e.g., Briere, 1992; Herman, 1992; Kiser et al., 1988; Lindberg & Distad, 1985; Wolfe et al., 1989). Conceptualizing the effects of CSA as PTSD began, in part, because of the lack of a unifying framework for understanding the different responses to CSA (Wolfe et al., 1989). According to the American Psychiatric Association's (1994) *Diagnostic and Statistical Manual of Mental Disorders, fourth edition (DSM-IV)*, PTSD may occur after a person is exposed to an event that involves real or perceived threat to him- or herself or others. This disorder is characterized by reexperiencing phenomena (e.g., recurrent and distressing thoughts and/or dreams of the event), chronic avoidance of stimuli associated with the trauma, and continual symptoms of increased arousal (e.g., difficulty falling asleep, hypervigilance) (American Psychiatric Association, 1994).

PTSD essentially is a clinical syndrome for which there is a growing body of literature attempting to explain its development (Spaccarelli, 1994). Currently, there are etiological theories from psychoanalytic (Horowitz, 1979), cognitive (Janoff-Bulman, 1985), behavioral (Keane, Zimmerling, & Caddell, 1985), and cognitive-behavioral (Foa, Steketee, & Rothbaum, 1989) traditions of psychology, each with an emphasis on different symptoms. Application of the PTSD framework to the effects of CSA appeared appropriate to those supporting this position for three reasons (Wolfe et al., 1989). First, abuse acts appear to meet the definition of trauma (Lindberg & Distad, 1985; Wolfe et al., 1989). For instance, abusers often engage in acts with children that may result in pain or physical injury (e.g., vaginal or anal intercourse) (Browne & Finkelhor, 1986). Second, research demonstrates that some people who experience CSA display defining symptoms of PTSD (e.g., Adam, Everett, & O'Neal, 1992; Kiser et al., 1988; McLeer et al., 1988; Wolfe et al., 1989). Third, as Wolfe et al. discussed, the three variables hypothesized to affect the impact of CSA (i.e., severity of trauma, availability of social support, and attributional styles regarding the cause of negative events) also influence a person's reaction to other traumatic events, such as rape or combat, that often lead to the development of PTSD.

#### *1.3.1. Critique of the PTSD formulation*

Conceptualizing the effects of CSA within a PTSD framework is useful in that it adequately explains some of the presenting problems observed in some of the children who experienced CSA. Further, there is a significant and growing body of research related to the clinical phenomenon of PTSD and thus this conceptualization is based on empirical evidence. However, not all people who experienced PTSD display the defining symptoms of

PTSD (e.g., McLeer et al., 1988), suggesting that the PTSD conceptualization may not be a unifying perspective adequate for accounting for all instances of adverse reactions. Also, various theories explaining the development of PTSD from multiple psychological perspectives (e.g., cognitive, behavior) exist. Further, focusing only on the potentially traumatic events of the abusive acts, as would be suggested by the PTSD framework, may lead one to ignore other situational factors that may be equally as important. Together, these concerns limit the applicability of the PTSD framework as an overarching explanatory model for all negative effects of CSA. Thus, the development of other models continued.

#### *1.4. Developmental models*

In contrast to adults, children experience relatively rapid rates of change both physically and psychologically. Developmental theorists (Alexander, 1992; Cole & Putnam, 1992; Putnam, 1990; Spaccarelli, 1994) have proposed models considering the impact of CSA from a developmental perspective. These models are based on theories that suggest sexual abuse interferes with ongoing development in areas such as social and self-functioning. Disruption in this development is manifested as severe symptomology, for which abused children and adults are at risk.

Alexander (1992) proposed that long-term effects of CSA may be understood within the framework of attachment theory (Bowlby, 1980; Crittendon & Ainsworth, 1989). According to attachment theory, interactions between child and care provider early in life (e.g., within the first year) result in the development of internal cognitive models and expectancies about future social relationships that later guide the child's social behavior (Bowlby, 1973). Alexander applies attachment theory to CSA issues in two ways: (a) to explain how abusive relationships may develop within the family structure and (b) to explain how abuse leads to different long-term sequelae for adult survivors of CSA. First, Alexander suggests that a history of insecure attachments for either the abusive or nonabusive parent sets the stage for sexual abuse of the child to occur. Rejection during childhood, role reversal, and unresolved trauma that may develop from the insecure attachment all result in the parent's diminished capacity to appropriately meet his or her own needs, to meet the needs of others, and to seek help to stop the abuse.

Second, referring to long-term effects of CSA, Alexander (1992) asserts subtypes of insecure attachments (i.e., resistant, avoidant, and disorganized) that may develop from exposure to sexual abuse are linked to adverse reactions differentially. Resistant attachment is proposed to predispose the adult survivor to revictimization, difficulties with interpersonal relationships, hypervigilance, symptoms of anxiety and fear, and borderline personality disorder. Disorganized attachment may lead to a dissociative coping style and higher risk for PTSD symptoms, borderline personality disorder, and multiple personality disorder. Finally, avoidant attachment may predispose a person to denial-based coping strategies, avoidance of memories of the abuse, and decreased ability to express emotion and intimacy with others.

Like Alexander's (1992) application of attachment theory to the effects of CSA, Cole and Putnam's (1992) model is specific to the effects of incest on development. It is based on the view that "coordination of a secure, integrated sense of self and meaningful interpersonal

relationships forms the core of the maturely functioning adult” (p. 176). That is, abuse events are said to disrupt the child’s ability to master critical developmental tasks or milestones that lead to an intact sense of self. Interference with mastery of tasks may lead to the development of deficient coping skills or may inhibit the development of effective coping skills. Thus, the child may use coping strategies that are ineffective or even harmful. The type of maladaptive coping strategies used will vary depending on the age at which sexual abuse was initiated and how long it continued. For example, in preschool-aged children, coping skills may be limited to denial and dissociation because active refusal and avoidant responses may be overridden by the abuser. Conversely, increased ability at introspective coping skills in school-aged children increases the likelihood they will experience guilt and shame reactions if CSA occurs during this time period.

Spaccarelli (1994) presented a framework for understanding the effects of CSA based on the transactional theory of development (Sameroff & Fiese, 1990). Briefly, transactional theory espouses that development occurs as a result of a series of person–environment interactions that create a course toward either healthy or psychopathological outcomes, depending on the type of interactions that are occurring. According to Sameroff (1990, as cited in Spaccarelli, 1994), a child’s environment is not static, but rather involves major changes affecting one’s intrapersonal resources and the direction of the trajectory of development. Further, a child’s internal resources (e.g., beliefs, internal representations) have a significant impact on the manner in which the environment is organized for that individual. Specifically, these resources function to mediate the effects of environmental variables.

Based on the transactional theory of development, Spaccarelli (1994) purports that CSA can be viewed in terms of its entire impact on the child and his or her environment (e.g., others’ reactions to disclosure), rather than focusing on abusive episodes exclusively. From this perspective, he outlines a framework consisting of two general tenets. The first tenet states sexually abused children are faced with a series of stressors (e.g., environment that supports abuse, changes in family structure following disclosure, community reactions to disclosure) and that the likelihood of experiencing adverse outcomes is in direct relation to the number of stressors experienced. The second tenet is that the effects of CSA and related life events are mediated by the development of negative cognitive appraisals and use of problematic coping responses that result in increased symptomology. Based on these tenets, Spaccarelli describes how person–environment interactions in the context of CSA may translate into adverse reactions.

Finally, combining dynamic, developmental, and biological perspectives, Putnam (1990) described how incestual CSA may disrupt development of healthy self-representations. According to his model, these disturbances develop because of an altered state of consciousness resulting from the abuse. It is the disturbances in one’s self-representations, rather than the abuse per se, that are said to account for problems experienced following CSA. Specifically, loss of childhood memories due to experiencing dissociative states may result in a fragmented sense of self. Such fragmentation may then lead to development of pathological patterns described as borderline personality disorder or multiple personality disorder. Similarly, repeatedly experiencing loss of self-control due to environmentally triggered altered states of consciousness, such as flashbacks, dissocia-

tion, and panic attacks results in excessive concern about control. Further, disturbances in the areas of sexual identity or developing an identity as a victim may lead to “pathologic relationships and revictimization in adulthood” (Putnam, 1990, p. 124). Putnam also suggests that body image disturbances may account for such problems as regression, self-mutilation, and conversion reactions. Finally, the low self-esteem observed in many people who experienced CSA may result as a culmination of the above disturbances in one’s sense of self.

#### *1.4.1. Critique of developmental models*

Together, the developmental models reviewed describe the effects of CSA as resulting from an interaction between the person and his or her environment to a greater or lesser extent. Specifically, living in an abusive environment results in an inadequately developed sense of self, which in turn affects how children cope. With the exception of Putnam (1990), the developmental models reviewed recognize the importance of analyzing the impact of multiple factors related to the abuse situation (e.g., actual abuse, reaction of others to disclosure, context in which the abuse occurs). As such, attempts are made to explain the complex nature of CSA and the environments in which the abuse occurs.

In contrast to strengths of the developmental models, there are limitations. First, with the exception of Spaccarelli (1994), developmental theorists concerned themselves primarily with the impact of incestual CSA. Although important, focusing solely on one type of abuse leaves one questioning whether the explanatory models are applicable for explaining the effects of other abusive relationships. Further, although the authors recognize the influence of environmental variables in the development of adverse reactions, they do not explicitly describe how certain situations actually lead to the development and maintenance of behavioral sequelae.

The remaining models reviewed in this article are based on various behavioral principles of learning theory and thus serve to (potentially) provide necessary explanations of how environmental contingencies actually may influence the behavior of people who experienced CSA.

#### *1.5. Models based on learning theory*

##### *1.5.1. Cognitive-behavioral model*

A conceptual model based on cognitive-behavioral theory has been developed by Hoier et al. (1992). The model proposes that the effects of CSA can be understood when experiences are viewed as occurring along a continuum ranging from challenging (e.g., observing sex or pornography), to stressful (e.g., observing rape, digital penetration of the anus or vagina) or traumatic (e.g., oral, anal, and vaginal sex; bondage; rape). The potential for experiencing negative effects increases as experiences go from challenging to traumatic. To explain the development and maintenance of CSA outcomes, both behavioral and cognitive processes are used.

Hoier and colleagues suggest that classical conditioning has a role in explaining the effects of CSA in that neutral stimuli (e.g., thoughts, bed, bathroom) become associated with unconditioned stimuli (e.g., loud noises, physical assault) of the abuse event that automati-

cally elicit a response (e.g., increased heart beat, fear). Through that association, the neutral stimuli become conditioned stimuli that elicit those same or similar responses. Victim responses suggested to be explained solely by classical conditioning include increased arousal and short-term disruption of appetitive and other physiological functions (e.g., heart rate, bladder control), hyperactivity, sleeplessness and concentration problems, somatic complaints indicative of physiological arousal, and eating disturbances. Additionally, the authors suggest that classical conditioning may explain reexperiencing phenomena (e.g., nightmares, flashbacks), reenactment (e.g., motorically recreating the traumatic episodes), and generalized fear and anxiety.

From operant traditions of behaviorism, Hoier et al. (1992) propose that processes of reinforcement and punishment account for certain effects of CSA. Negative reinforcement (i.e., the removal of a stimulus following a response that increases its future probability) is suggested to account for escape and avoidance responses, such as phobias and avoidance of trauma-specific stimuli (e.g., sexual problems); social withdrawal; running away; drug/alcohol use; suicide; dissociation processes; and aggression and other externalizing problems that may function to remove aversive stimuli. Positive reinforcement (i.e., the presentation of a stimulus following a response that increases its future probability) may explain an increased likelihood of the child complying with the abuse contacts in the future and sexualized behavior such as masturbation or inappropriate touching of others. Finally, punishment (i.e., either the removal or presentation of a stimulus following a response that decreases its future probability) may explain the decrease in active coping responses, such as attempts to escape abusive situations, that is often observed in victims.

Several mechanisms are suggested to account for long-term maintenance of responses in CSA victims. First, generalization of conditioned stimuli may lead to problematic responses years after the abuse has occurred. "Generalization occurs when neutral stimuli that share common characteristics with the original conditioned stimuli evoke trauma-related responses" (Hoier et al., 1992; p. 111). Additionally, cognitive processes may account for the maintenance of responses. Specifically, Hoier and colleagues propose that cognitions constructed by individuals to describe Antecedent-Behavior-Consequence relations cause people to respond to abuse differentially. An example of a such a cognition is, "If I tell about the abuse, my father will hurt me and my brothers." These cognitions, referred to as rules, function to alter those relations by specifying contingency probability, mediating the impact of other environmental conditions on behavior. Thus, although the child from the above example may never have disclosed the abuse, and thus never came in contact with the specified contingency, the rule predicts the contingency and, therefore, mediates the child's behavior (i.e., the child does not disclose the abuse).

### *1.5.2. Behavioral model*

Polusny and Follette (1995) provided a model for explaining long-term behavioral sequelae often observed in adults who experienced CSA solely based in behavioral theory, without reference or appeal to cognitive processes as causal variables. The premise of the model is based on the necessity of evaluating three aspects of the long-term correlates of CSA: (a) the individual's experiences, (b) the systems in which the individual interacts (e.g., school, home life), and (c) the socioeconomic context of the individual. With such a basis, the

“conceptualization considers both distal and proximal variables in a variety of contexts” (Polusny & Follette, p. 158).

Based on a review of literature conceptualizing many long-term adverse reactions of CSA as forms of avoidance or tension-reducing strategies, Polusny and Follette (1995) use Hayes' (1987) theory of emotional avoidance as the premise for their theoretical model. Briefly, the theory of emotional avoidance refers to a person's unwillingness to experience unpleasant internal events (e.g., thoughts, feelings) associated with the abuse history and the behavioral strategies used to avoid these events. As applied to adults who experienced CSA, the theory submits that many behavior patterns are used to temporarily reduce or avoid negative abuse-related internal experiences (Follette, 1994). Use of these strategies is negatively reinforced by the temporary reduction or alleviation of these private events. For example, consuming alcohol prior to engaging in sexual activity may produce reduced ability to think or remember clear, thus reducing one's thoughts about past abuse during the current experience. According to this theory, past sexual abuse serves as a distal event that increases the likelihood that one will develop both observable and private coping strategies to avoid the emotions related to the abuse. Additionally, engaging in these emotional avoidant strategies may lead to more proximate stressors for the individual, further reducing the person's functioning level. Continuing the above example, the person who consumes alcohol to the point of intoxication as a means of avoiding abuse-related private events may be revictimized as a result of placing him- or herself in dangerous situations due to decreased reasoning capacity.

### *1.5.3. Behavior analytic model*

Building on behavioral models described above, Freeman and Morris (1999) demonstrated the applicability of behavior analytic principles for developing an understanding of the adverse reactions observed in people who experienced CSA. Briefly, behavior analytic theory suggests that the most pragmatic and parsimonious account of behavior can be found by appealing to the causal influence of environmental variables (e.g., Baum, 1994; Skinner, 1953). Based on such a theory, then, developing a comprehensive account of the adverse reactions displayed by people who experienced CSA is accomplished by analyzing the reactions within the context in which they occur (e.g., Biglan & Hayes, 1996; Morris, 1992).

The behavior analytic conceptualization provided by Freeman and Morris (1999) covers several areas. First, the authors review how the processes of positive and negative reinforcement may maintain continued adverse reactions. Second, the authors add to the literature on the topic by describing the role of language (i.e., verbal behavior) based on a behavior analytic approach—for example, how stimulus equivalence (e.g., Sidman, 1971) may account for why environmental stimuli not present during the abusive situation might occasion adverse reactions without a direct learning history. Third, the processes by which certain abusive situations might lead to experiencing and reporting certain emotional reactions (e.g., guilt, hopelessness) are described. Fourth, regarding long-term effects of CSA, the authors provide an account of how early learning experiences (e.g., sexual abuse by one's father) may result in particular behavior patterns later in life (e.g., remaining in chaotic or abusive relationships), without appealing to mediating hypothetical constructs. Specifically, research

suggesting that aversive learning situations (i.e., sexual abuse) may impede attempts to escape or avoid abusive situations in the future is discussed. The authors purport that such findings potentially may account for documented increases in revictimization or participation in prostitution by people who were sexually abused as children. Finally, the authors describe research on verbally controlled behavior (i.e., rule governance), focusing on how research on this topic demonstrates that behavior under the control of rules may be insensitive to changes in environmental contingencies.

#### *1.5.4. Critique of learning theory models*

In contrast to the other models reviewed in this article, the conceptualizations based on behavioral learning theories offer means of explaining the effects of CSA by appealing primarily to objective, observable environmental causes. Hoier et al. (1992) do appeal to cognitions referred to as “rules” as explanatory variables in the long-term adverse reactions displayed by some people who experienced CSA. However, their explanation of these cognitions is somewhat consistent with behavior analytic accounts of rule governance of behavior, accounts that appeal to environmental determinants of behavior (e.g., Catania, Shimoff, & Matthews, 1989; Galizio, 1979). Therefore, together utility of the learning theory models as explanatory conceptualizations is potentially greater than that of other models because they are—at least theoretically—empirically verifiable. For example, existence of a functional relation between adult reactions and occurrence of particular behavior problems exhibited by children who were abused could be determined by manipulating the former based on the latter (e.g., increase the occurrence of a reaction contingent upon a specified behavior problem). If the rate of the behavior problem increased as a function of the manipulation, then the historical analysis would suggest a causal relation between the two variables.

In addition to being empirically verifiable, both the behavior analytic (Freeman & Morris, 1999) and the cognitive-behavioral (Hoier et al., 1992) models offer examples of attempts to provide comprehensive means of explaining the effects of CSA. In these models, the authors analyze the impact of both the abuse and the abusive environment, discuss the role of other contextual variables (e.g., other’s reaction to disclosure), and provide a means of understanding how certain environmental variables are causally related to different outcomes. Further, both conceptualizations account for both short- and long-term behavioral sequelae of CSA, offering clinicians who work with people falling along the developmental spectrum resources for understanding the behavioral phenomena observed.

A potential concern with the models based on learning theories relates to the pragmatics of empirically testing the positions espoused. Specifically, all of the conceptualizations describe potential functional relations between particular adverse reactions and environmental situations. However, to demonstrate empirically that such relations existed, one would need to actually manipulate the variables. For example, to demonstrate that excessive drinking functions to decrease or eliminate unpleasant emotional states—as suggested by Polusny and Follette (1995)—one would need to conduct an experiment in which measures of the presence or absence of aversive emotions occurred during “sober” and “intoxicated” conditions. Conducting such an experiment is unlikely to occur given ethical and legal constraints. Although valid for the behavioral models, this concern also appears applicable to all of the models reviewed; thus, it may not necessarily detract from their utility as conceptual

frameworks. Further, as mentioned above, these conceptualizations are based on significant bodies of research that demonstrate empirically the principles used to explain the adverse reactions of people who experienced CSA.

## 2. Current state of the literature

As should be evident from the conceptual models reviewed above, the literature is rich with interesting and diverse thoughts regarding why CSA may result in initial and long-term reactions in persons who have experienced this form of maltreatment. Additionally, the models developed to understand the behavioral sequelae of CSA have undergone a transformation over the years. Initial efforts (i.e., Finkelhor & Browne, 1985; Summit, 1983) focused on explaining the effects of CSA without ties to a particular theory of behavior. Rather, the authors drew from their and others' clinical experiences as a means of organizing and unifying different aspects of sexual abuse and its correlated factors into a coherent framework.

Starting with Burgess et al. (1987), a shift toward linking conceptual models to particular psychological theories began. Indeed, most models published since then have been based on a particular theory of behavior. As such, they have moved away from a basis solely on clinical experience to drawing from perspectives based on considerable background research and data. Of the models reviewed above, only the view of the effects of CSA as PTSD does not have a direct link to a certain perspective. However, unlike the others reviewed, this approach to understanding the adverse reactions to CSA has not been put forth as a specific model per se. Rather, it represents the general thinking of multiple authors, authors who may subscribe to multiple theoretical perspectives. Additionally, because the different perspectives of PTSD are based on significant bodies of literature, viewing the effects of CSA within a PTSD framework is consistent with the movement toward a more empirical basis that has occurred over the years.

Although the majority of models published since the mid 1980s are based on a particular psychological theory, most focus solely on certain aspects of the sexual abuse or dimensions of the reactions by those who have experienced it. As an example, the theoretical and philosophical foundations of Polusny and Follette's (1995) model can be found in the behavioral traditions of psychology. Although the authors do a superb job providing a behavioral understanding of a certain class of escape-maintained behavior (emotional avoidant responding), they do not address other behavior that may be maintained via different mechanisms (e.g., via positive reinforcement). Lack of a comprehensive application of psychological theory to all aspects of CSA and its correlated factors can be seen in other models as well (e.g., Alexander, 1992; Burgess et al., 1987; Feiring et al., 1996). This is not to suggest that these models are not beneficial in their own right, but rather to raise the issue that a more in-depth understanding of adverse reactions from different perspectives may be able to be achieved if the models put forth were more comprehensive in nature. Perhaps Freeman and Morris (1999) and Hoier et al. (1992) come closest to providing an overarching understanding of the diverse reactions of people who have experienced CSA.

Although more recent conceptualizations of adverse reactions of CSA benefit from a greater emphasis on research, the lack of a unifying thread leaves this area of study and conceptualization somewhat fragmented. Because of differences in underlying theories upon which the models are based, there is little similarity between causal mechanisms put forth to explain why some people experience negative reactions to CSA. As a result, different factors and variables are highlighted as important contributors to the outcome of the abuse. This lack of commonality may leave psychologists, counselors, or other service providers who turn to this literature for guidance confused regarding the most useful approach for understanding the problem. However, it is important to note that this limitation in the literature on this topic is likely more the result of the status of psychology in general: as a field, psychology remains a science with little or no unifying underpinnings.

### **3. Future directions**

Much has been accomplished over the past 15 years in terms of developing an understanding of why CSA may result in negative outcomes. Those working in the field have moved from simply documenting the adverse reactions experienced to attempting to explain those reactions. Although most conceptual models published since the late 1980s have a direct link to an empirical basis, applicability and appropriateness of the link has not been readily tested for most positions. Thus, to ensure that conceptualizations put forth are adventitious beyond the theoretical level, research must demonstrate such. To accomplish this, researchers could conduct empirical evaluations of the application of the tenets of the different models.

Empirically documenting the utility of a conceptual model put forth to explain the adverse reactions of CSA could be accomplished by various means. Currently, one may not be able to determine which model provides the best means of explaining the impact of CSA. As a method of determining the greater utility of one model over another, the effectiveness of interventions based on different models could be compared. Treatment effectiveness could then be used as evidence for the support of the model upon which the intervention is based. Although such an approach is a post hoc demonstration of the appropriateness of a specified model, it would provide some supporting evidence for a particular means of understanding the phenomena of interest. Similarly, researchers could compare clinicians' case conceptualizations based on the different models in terms of usefulness of the information provided. At the practice level, a theoretical model purporting to explain development of adverse reactions to CSA is useful only to the extent that it assists clinicians in developing effective interventions. Case conceptualization comparisons would allow for an analysis of the amount of clinically relevant information obtained when a clinician uses a particular model as the guiding framework for assessment and treatment development. Finally, as another means demonstrating the utility of different models, examples of case conceptualizations and interventions based on the perspectives could be provided. Simply documenting that one was able to effectively conceptualize and treat a client's presenting problems based on a particular model would provide some credibility to that perspective.

Clearly, there are other avenues of research that need to be pursued so as to demonstrate the superiority of one model compared to another. Unfortunately, there has been a relative lack of empirical work directly tied to theoretical models proposed to account for the adverse effects of CSA. An exception to this is a recent study by Baynard and Williams (1996). Using a prospective approach, these authors tested the association between certain abuse variables (e.g., physical force, relationship of perpetrator) and negative outcomes. The specific associations studied were based on a synthesis of tenets suggested as causally related by the PTSD and Traumatic Dynamics (Finkelhor & Browne, 1985) models. Results provided support for hypothesized relations suggested by the models. This study serves as an example of empirically evaluating the tenets of theoretical models on this topic.

In addition to empirically documenting the utility of different conceptualizations, other gaps in the literature need to be filled so as to improve upon our understanding of the effects of CSA. As discussed above, the reviewed models lack a unifying perspective that potentially accounts for the impact of the myriad abusive acts and situational variables associated with experiencing CSA. Instead, many of the models attempt to account for particular types of abuse that are purported to be applicable only to certain people who experienced CSA. For example, Cole and Putnam (1992) discussed the effects of incest whereas Hoier et al. (1992) described the impact of various types of CSA (e.g., noncontact, contact). Further, some theorists (e.g., Summit, 1983) provide models applicable only to females, whereas others (e.g., Polusny & Follette, 1995; Spaccarelli, 1994) do not limit their discussions based on gender.

In contrast to most of the models reviewed in this article, the behavior analytic model (Freeman & Morris, 1999) offers a conceptualization of the effects of CSA that attempts to account for the impact of the abusive acts as well as the situational factors, is applicable to both male and female victims, and accounts for both short- and long-term effects of CSA. Further, the conceptualization is based on a behavior analytic approach to understanding human behavior. As such, it is (potentially) empirically verifiable because the causes of the adverse reactions observed are attributed to manipulable environmental events. Behavior analytic and learning theory conceptualizations appear to be the most comprehensive and empirically verifiable, suggesting that their utility as explanatory models may be greater than other approaches.

In closing, continued empirical and conceptual efforts directed toward understanding the impact of CSA are necessary in order that professionals working in the area may be able to provide the most beneficial services available. As more information is obtained regarding processes involved in the sequelae of CSA, targeted intervention and secondary prevention programs may be developed.

## **Acknowledgments**

Portions of this article are based on a document submitted by the first author to the Department of Psychology at West Virginia University for admission to doctoral candidacy. We would like to thank Cheryl McNeil, Cynthia Anderson, and Carrie Masia for their helpful comments on an earlier version of this article.

## References

- Adam, B. S., Everett, B. L., & O'Neal, E. (1992). PTSD in physically and sexually abused psychiatrically hospitalized children. *Child Psychiatry and Human Development* 23, 3–8.
- Alexander, P. C. (1992). Application of attachment theory to the study of sexual abuse. *Journal of Consulting and Clinical Psychology* 60, 185–195.
- American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed). Washington, DC: Author.
- Baum, W. M. (1994). *Understanding Behaviorism: Science, Behavior, and Culture*. New York: Harper Collins.
- Baynard, V. L., & Williams, L. M. (1996). Characteristics of child sexual abuse as correlates of women's adjustment: A prospective study. *Journal of Marriage and the Family* 58, 853–865.
- Beitchman, J. H., Zucker, K. J., Hood, J. E., DaCosta, G. A., & Akman, D. (1991). A review of the short-term effects of child sexual abuse. *Child Abuse and Neglect* 13, 537–556.
- Beitchman, J. H., Zucker, K. J., Hood, J. E., DaCosta, G. A., Akman, D., & Cassavia, E. (1992). A review of the long-term effects of child sexual abuse. *Child Abuse and Neglect* 16, 101–118.
- Biglan, A., & Hayes, S. C. (1996). Should the behavioral sciences become more pragmatic? The case for functional contextualism in research on human behavior. *Applied and Preventive Psychology* 5, 47–57.
- Bowlby, J. (1973). *Attachment and Loss, Vol. 2: Separation*. New York: Basic Books.
- Bowlby, J. (1980). *Attachment and Loss, Vol. 3: Loss*. New York: Basic Books.
- Briere, J. (1992). *Child Abuse Trauma: Theory and Treatment of the Lasting Effects*. Newbury Park, CA: Sage.
- Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological Bulletin* 99, 66–77.
- Burgess, A. W., Hartman, C. R., Wolbert, W. A., & Grant, C. A. (1987). Child molestation: Assessing the impact in multiple victims (Part I). *Archives of Psychiatric Nursing* 1, 33–39.
- Catania, A. C., Shimoff, E., & Matthews, B. A. (1989). An experimental analysis of rule-governed behavior. In S. C. Hayes (Ed.), *Rule-governed Behavior: Cognition, Contingencies, and Instructional Control* (pp. 119–150). New York: Plenum Press.
- Chantler, L., Pelco, L., & Mertin, P. (1993). The psychological evaluation of child sexual abuse using the Louisville behavior checklist and human figure drawings. *Child Abuse and Neglect* 17, 271–279.
- Cole, P. M., & Putnam, F. W. (1992). Effect of incest on self and social functioning: A developmental psychopathology perspective. *Journal of Consulting and Clinical Psychology* 60, 174–184.
- Crittendon, P. M., & Ainsworth, M. D. S. (1989). Child maltreatment and attachment theory. In D. Cicchetti & V. Carlson (Eds.), *Child Maltreatment* (pp. 432–463). Cambridge, UK: Cambridge University Press.
- Feiring, C., Taska, L., & Lewis, M. (1996). A process model for understanding adaptation to sexual abuse: The role of shame in defining stigmatization. *Child Abuse and Neglect* 20, 767–782.
- Finkelhor, D. (1988). The trauma of child sexual abuse: Two models. In G. E. Wyatt & G. J. Powell (Eds.), *Lasting Effects of Child Sexual Abuse* (pp. 61–82). Newbury Park, CA: Sage.
- Finkelhor, D. (1990). Early and long-term effects of child sexual abuse: An update. *Professional Psychology: Research and Practice* 21, 325–330.
- Finkelhor, D., & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. *Journal of Orthopsychiatry* 55, 530–541.
- Foa, E. B., Steketee, G., & Rothbaum, B. O. (1989). Behavioral/cognitive conceptualizations of post-traumatic stress disorder. *Behavior Therapy* 20, 155–176.
- Follette, V. M. (1994). Acceptance and commitment in the treatment of incest survivors: A contextual approach. In S. C. Hayes, N. S. Jacobson, V. M. Follette, & M. Dougher (Eds.), *Acceptance and Change: Content and Context in Psychotherapy* (pp. 255–268). Reno, NV: Context Press.
- Freeman, K. A., & Morris, T. M. (1999). Explaining the effects of child sexual abuse: A behavior analytic conceptualization. *Journal of Child Sexual Abuse* 7, 3–21.

- Galizio, M. (1979). Contingency-shaped and rule-governed behavior: Instructional control of human loss avoidance. *Journal of the Experimental Analysis of Behavior* 31, 53–70.
- Hayes, S. C. (1987). A contextual approach to therapeutic change. In N. S. Jacobson (Ed.), *Psychotherapists in Clinical Practice: Cognitive and Behavioral Perspectives* (pp. 327–387). New York: Guilford Press.
- Herman, J. L. (1992). *Trauma and Recovery*. New York: Basic Books.
- Hoier, T. S., Shawchuck, C. R., Pallotta, G. M., Freeman, T., Inderbitzen-Pisaruk, H., MacMillan, V. M., Malinosky-Rummell, R., & Greene, A. L. (1992). The impact of sexual abuse: A cognitive-behavioral model. In W. O'Donohue & J. H. Geer (Eds.), *The Sexual Abuse of Children: Theory and Research* (Vol. 2, pp. 100–142). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Horowitz, M. (1979). Psychological response to serious life events. In V. Hamilton & D. M. Warburton (Eds.), *Human Stress and Cognition: An Information Processing Approach* (pp. 237–265). New York: John Wiley and Sons.
- Janoff-Bulman, R. (1985). The aftermath of victimization: Rebuilding shattered assumptions. In C. R. Figley (Ed.), *Trauma and its Wake: The Study and Treatment of Post-traumatic Stress Disorder* (pp. 15–35). New York: Brunner/Mazel.
- Keane, T. M., Zimmerling, R. T., & Caddell, J. M. (1985). A behavioral formulation of post-traumatic stress disorder in Vietnam veterans. *The Behavior Therapist* 8, 9–12.
- Kendall-Tackett, K. A., Williams, L. M., & Finkelhor, D. (1993). Impact of sexual abuse on children: A review and synthesis of recent empirical studies. *Psychological Bulletin* 113, 164–180.
- Kiser, L. J., Ackerman, B. J., Brown, E., Edwards, N. B., McColgan, E., Pugh, R., & Pruitt, D. B. (1988). Post-traumatic stress disorder in young children: A reaction to purported sexual abuse. *American Academy of Child and Adolescent Psychiatry* 27, 645–649.
- Lindberg, F. H., & Distad, L. J. (1985). Post-traumatic stress disorders in women who experienced childhood incest. *Child Abuse and Neglect* 9, 329–334.
- McLeer, S. V., Deblinger, E., Atkins, M. S., Foa, E. B., & Ralphe, D. L. (1988). Post-traumatic stress disorder in sexually abused children. *American Academy of Child and Adolescent Psychiatry* 27, 650–654.
- Morris, E. K. (1992). The aim, progress, and evolution of behavior analysis. *The Behavior Analyst* 15, 3–29.
- Polusny, M. A., & Follette, V. M. (1995). Long-term correlates of child sexual abuse: Theory and review of the empirical literature. *Applied and Preventative Psychology* 4, 143–166.
- Putnam, F. W. (1990). Disturbances of “self” in victims of childhood sexual abuse. In R. P. Kluft (Ed.), *Incest-related Syndromes of Adult Psychopathology* (pp. 113–131). Washington, DC: American Psychiatric Press.
- Rew, L. (1989). Long-term effect of childhood sexual exploitation. *Issues in Mental Health Nursing* 10, 229–244.
- Salter, A. C. (1992). Epidemiology of child sexual abuse. In W. O'Donohue & J. H. Geer (Eds.), *The Sexual Abuse of Children: Theory and Research* (Vol. 1, pp. 108–138). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Sameroff, A. J., & Fiese, H. H. (1990). Transactional regulations and early intervention. In S. J. Meisels & J. P. Shonkoff (Eds.), *Handbook of Early Childhood Intervention* (pp. 119–149). Chicago: University of Chicago Press.
- Sidman, M. (1971). Reading and auditory-visual equivalences. *Journal of Speech and Hearing Research* 14, 5–13.
- Skinner, B. F. (1953). *Science and Human Behavior*. New York: The Free Press.
- Spaccarelli, S. (1994). Stress, appraisal, and coping in child sexual abuse: A theoretical and empirical review. *Psychological Bulletin* 116, 340–362.
- Summit, R. C. (1983). The child sexual abuse accommodation syndrome. *Child Abuse and Neglect* 7, 177–193.
- Wasserman, S., & Rosenfeld, A. (1992). An overview of the history of child sexual abuse and Sigmund Freud's contribution. In W. O'Donohue & J. H. Geer (Eds.), *The Sexual Abuse of Children: Theory and Research* (Vol. 1, pp. 49–72). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Wolfe, V. V., Gentile, C., & Wolfe, D. (1989). The impact of sexual abuse on children: A PTSD formulation. *Behavior Therapy* 20, 215–228.