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CLINICAL ISSUES AND RESEARCH

**Explaining the Effects
of Child Sexual Abuse:
A Behavior Analytic Conceptualization**

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ABSTRACT. In the last two decades, several authors have proposed conceptual models to explain the adverse effects of child sexual abuse (CSA). Although conceptual models have been proposed from broadly behavioral perspectives (e.g., cognitive behavioral), as yet there is no comprehensive behavior analytic conceptualization of the effect of CSA. In this article, the behavior analytic mechanisms used to explain the development and maintenance of behavior are described, with spe-

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clific reference to how the mechanisms provide a comprehensive means of accounting for adverse reactions following CSA. *[Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: getinfo@haworthpressinc.com]*

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Within the past 15 years, child sexual abuse (CSA) has become recognized as a significant social problem in the United States (Chantler, Pelco, & Mertin, 1993). Research suggests that CSA is associated with deleterious short-term and long-term effects (for reviews, see Beitchman, Zucker, Hood, DaCosta, & Akman, 1991; Beitchman et al., 1992; Browne & Finkelhor, 1986; Finkelhor, 1990; Kendall-Tackett, Williams, & Finkelhor, 1993). Links have been examined among a variety of abuse variables and their relation to the development of adverse outcomes, including the age at which the abuse occurred (Conte & Schuerman, 1987; Gomez-Schwartz, Horowitz, & Sauzier, 1985), the duration of the abuse (Groth, 1978; Tsai, Feldman-Summers, & Edgar, 1979), the closeness of the relationship between the abuser and victim (Conte & Schuerman, 1987; McLeer, Deblinger, Atkins, Foa, & Ralphe, 1988), the level of resistance by the victim (Conte & Schuerman, 1987), and the frequency of abuse events and number of perpetrators (Beitchman et al., 1991).

Starting in the mid-1980s, conceptual models began to be proposed to explain how CSA, and its associated variables, caused adverse reactions (e.g., Alexander, 1992; Burgess, Hartman, Wolbert, & Grant, 1987; Cole & Putnam, 1992; Hoier et al., 1992; Kiser et al., 1988; Polusny & Follette, 1995; Wolfe, Gentile, & Wolfe, 1989). Work in this area has been conducted from various theoretical perspectives including attachment theory, cognitive-behavioral theory, and developmental theory. Although other authors (i.e., Hoier et al., 1992; Polusny & Follette, 1995) have provided conceptualizations from broadly behavioral perspectives, to date no comprehensive account has been described from a behavior analytic framework. The purpose of this article is to provide a behavior analytic conceptualization of the impact of CSA. Behavior analytic theory previously has been criticized as not being able to adequately account for complex human phenomena (e.g., Mahoney, 1977, 1989; Meichenbaum & Cameron, 1982).

such as those exhibited by people who experienced CSA. However, it is our contention that behavior analytic theory provides the conceptual and empirical foundation for developing an understanding of the reactions described in the CSA literature. Thus, it is our hope to contribute to the growing body of literature by analyzing the adverse effects of CSA from a behavior analytic point of view. For purposes of illustration, the following case material will be referred to throughout the article to help illustrate the application of behavioral analytic principles to explaining the initial and long-term effects of child sexual abuse.

CASE EXAMPLE

"Sharon" was a 12 year old girl referred for evaluation through her caseworker at a local children and youth services agency. The agency had received a report from Sharon's school teacher that Sharon had disclosed to a peer that she had been sexually assaulted by her mother's paramour. Life history information obtained during the initial interview indicated that Sharon had experienced a fairly chaotic family background. Reports from Sharon (later confirmed by other informants) indicated that Sharon's mother Lucinda was relatively unresponsive and unresponsive toward her children. At 28 years of age, Lucinda was the mother of six children. Lucinda had a history of volatile interpersonal relationships and several romantic partners had been in and out of her life in rapid succession. She experienced frequent bouts of depression and routinely blamed her children for ruining her life, suggesting that they were the reason men would not stay with her. Lucinda essentially abdicated her parenting role, leaving Sharon largely responsible for the care of her younger siblings. Lucinda's latest paramour James, a 24 year old part-time auto mechanic, had lived with the family for approximately 10 months. Sharon reported that James had been very nice to her when he moved in with her family. He would spend time talking with Sharon and would have her accompany him to the garage where he conducted his part-time auto repair business. Approximately six months prior to the initial interview, James had begun fondling Sharon. The abuse rapidly progressed to full sexual intercourse, occurring approximately one to two times per week over several months. At the time of the interview, Sharon presented with the following behaviors of clinical concern: withdraw-

al from family, increased conflict with her mother over refusal to do chores, somatic complaints, and frequent agitation.

Following disclosure to child protective services, it was recommended that Lucinda and Sharon begin individual and family therapy. Lucinda and Sharon failed to attend several scheduled appointments and the agency was informed that they had moved out of the area. By that time, James and Lucinda had terminated their relationship and he was no longer involved with the family. Sharon refused to cooperate with the District Attorney's office and consequently no charges were filed against James.

Eleven years later, Sharon sought therapy on her own for symptoms of anxiety and depression that she felt may have been related to her family background and history of sexual abuse. The following presenting problems were reported by Sharon at the age of 23: intrusive thoughts related to CSA history, promiscuous sexual behavior during mid- to late-adolescence, current involvement in an abusive romantic relationship, lack of assertiveness, and low self-esteem.

BEHAVIOR ANALYTIC CONCEPTUALIZATION

Behavior analysis is a subdiscipline of psychology concerned with developing a pragmatic method to describe and control all behavior, public and private (Baum, 1994; Chiesa, 1994; Morris, 1992; Skinner, 1953, 1974). As such, the principles used to explain behavioral phenomena should be applicable to observed reactions of people who experienced CSA. From a behavior analytic perspective, developing a thorough understanding of adverse reactions related to CSA may be achieved by analyzing them in the context in which they occur (Biglan & Hayes, 1996; Hayes & Wilson, 1995; Morris, 1992; Skinner, 1953, 1969). Variables of interest are those that exist in the environment outside of the individual; thus, it is assumed behavior is controlled by contingencies that operated in the individual's history as well as by the current conditions.

A behavior analytic approach involves identifying the antecedent-behavior-consequence relations, as well as other important contextual variables, that account for specific adverse reactions observed in the individual who experienced CSA. Thus, a clinician taking such an approach is interested in identifying: (a) those consequences that are affecting a person's behavior via the processes of reinforcement[†] and

punishment,* (refer to Table 1 for definitions of terms denoted with an asterisk) and (b) antecedents that increase the likelihood that specific reactions will occur as a result of the development of discriminative stimulus control.* For example, learning that the child Sharon was able to escape James' sexual advances by engaging in certain behav-

TABLE 1. Definitions of Behavior Analytic Principles

Principle	Definition
Positive reinforcement	Presentation of a stimulus following a response that increases the future probability of responding.
Negative reinforcement	Removal of a stimulus following the response increases the future probability of the response.
Positive punishment	Presentation of a stimulus following a response decreases the probability of future responding.
Negative punishment	Removal of a stimulus following the response decreases future probability of the response.
Stimulus control	A particular antecedent stimulus is reliably associated with a particular response-consequence relation.
Discriminative stimulus	A stimulus that either sets the occasion for responding (S+) or not responding (S-).
Equivalence class	Stimuli to which the individual responds to reflexive, symmetric, and transitive relations.
Escape/avoidance learning	First, a shock and signal are temporally associated, thus conditioning the signal as an aversive stimulus. Then, the subject is conditioned to emit a response that terminates the signal, thereby escaping the conditioned aversive stimulus and avoiding the shock.
Two process theory	Previously neutral stimuli become aversive through repeated pairing with unconditioned aversive stimuli; then, responses that produce the weakening or removal of either the unconditioned or conditioned aversive stimuli become more likely to occur.
Rules	"Verbal" statements (e.g., written, spoken, self-talk) of a contingency relation between behavior and the environment.

iors (e.g., appearing sick and nauseous) may alert the clinician to assess for instances in which similar behaviors lead to escape in their current environment (e.g., was the child Sharon allowed to escape or refuse chores by appearing sick?). Further, the clinician can assess for common antecedent events (e.g., particular people, certain demands) that set the occasion for such behavior. Gathering this information should lead to an intervention that is targeted toward disrupting the functional relation (e.g., exposing a client to commands without allowing escape).

EXPLORING FUNCTIONAL RELATIONS

The hypothesized relation between various environmental variables and particular effects of CSA observed in people has been discussed in the literature (e.g., Follette, 1994; Hoier et al., 1992; Polusny & Follette, 1995). Therefore, it does not seem necessary to provide another account of how certain responses may be affected by different variables. However, there are parameters of antecedent-behavior-consequence relations that have not been discussed in relation to the impact of CSA. The remainder of this conceptualization will explore those parameters. Specifically, the relation between CSA and equivalence classes and transfer of stimulus function, aversive conditioning paradigms, temporal changes in functional relations, private events, and rule governance will be discussed.

Equivalence Classes and the Transfer of Stimulus Function

As mentioned earlier, understanding the role of antecedent stimulus conditions in the occurrence of adverse reactions is extremely important for developing a thorough behavior analytic account. Certain antecedent stimuli come to occasion specific behaviors by their relation to particular behavior-consequence relations (e.g., James comes to set the occasion for the child Sharon to experience fear because James' presence often led to painful experiences). However, stimulus control also may develop even if the antecedent condition is not temporally related to the response-consequence relation when those stimuli participate in an equivalence class* (Hayes, 1991; Hayes & Willison, 1993; Sidman, 1971; Sidman, Wynne, Maguire, & Barnes, 1989).

As a simple example of equivalence class formation, a child is taught to match B to A and also is taught to match C to B using a match-to-sample procedure. Then, one tests for reflexivity (matching each stimulus to itself), symmetry (matching A to B and B to C), and transitivity (matching C to A). If these relations emerge, the stimuli are said to participate in an equivalence class. The three stimuli (i.e., A, B, C) are responded to as if they are the same.

When equivalence relations are established across stimuli, transfer of stimulus function may occur across all members of the class (Dougher, 1994). Take the example of an equivalence class consisting of a picture of a bed, an actual bed, and the letters "b-e-d." If a child learns to respond to an actual bed with fear as a result of repeated sexual abuse on the bed, the other members of the equivalence class also are likely to evoke the fear response (e.g., a fear response may occur upon exposure to the written word "b-e-d") due to transfer of stimulus function. This process may explain why novel, and seemingly innocuous, stimuli function to continue to evoke certain behavioral patterns observed in people who were sexually abused as children. For example, an emotional reaction may be elicited whenever the adult Sharon passes by a billboard advertisement for a motor oil company on her way home from work each day. Although Sharon may report being unaware of why she has such a response, further interview may determine that there was a strong smell of motor oil in the garage in which she was sexually abused by James and that transfer of stimulus function to the billboard subsequently has occurred.

Aversive Conditioning Paradigms

Because aversive stimuli may be involved in abuse situations, a thorough understanding of how aversive conditioning paradigms relate to the impact of CSA seems warranted. Specifically, two-process theories and the effects of uncontrollable versus controllable aversive stimuli are pertinent to the present topic.

Two-process theories. Research demonstrates that non-humans repeatedly exposed to escape/avoidance learning paradigms* emit responses that are resistant to extinction (Baum, 1970). This research has significant implications for the present topic because many CSA-related responses (e.g., affective numbing, dissociation, substance

abuse, sexual promiscuity, running away) have been conceptualized as escape/avoidance behavior (Follette, 1994; Hoier et al., 1992; Polusny & Follette, 1995).

Two-process theories* (Mowrer, 1960; Skinner, 1953) are extensions of escape/avoidance learning paradigms and seem most appropriate for explaining escape/avoidance responding observed in people with a history of CSA. For example, James may have hit the child Sharon, an unconditioned stimulus that elicits responses such as a startle response or an increased heart rate. Through classical conditioning, other stimuli in the environment (e.g., James' blue work shirt, the smell of oil) may come to elicit these same responses through repeated pairings with the hitting. Additionally, the child may emit responses (e.g., running away, withdrawing from the family) that function to weaken or remove the abuse or its associated stimuli. When this occurs, the responses are negatively reinforced and thus become more likely to occur given the occurrence of either the unconditioned or conditioned stimuli. Responding to conditioned stimuli may be maintained for extended periods after the abuse stops because it continues to be negatively reinforced by the removal of those stimuli (Baum, 1970). For example, the child Sharon may have learned to withdraw from family activities and outings in order to escape situations that resulted in (a) feelings of emotional abuse associated with Lucinda's tirades in which she blamed her children for ruining her life and (b) aggressive feelings directed at her mother for failing to protect her from James. The adult Sharon may continue to avoid contact with her mother as removal of the uncomfortable emotional states has been negatively reinforced.

Given that two-process theories may explain why certain reactions are persistent despite discontinuation of abuse (e.g., affective numbing, dissociation), intervention should be directed toward ensuring that the person who experienced CSA does not behave in a manner that allows him or her to escape the triggering stimuli. For example, with a person who dissociates, therapeutic efforts may involve keeping a person actively focused on a task while also simultaneously exposing them to a conditioned stimulus, thus decreasing the likelihood that he or she will dissociate. As a result of repeated exposure to such a paradigm, the conditioned stimulus will eventually stop functioning as a discriminative stimulus for dissociating.

Uncontrollable aversive stimuli. Research on uncontrollable aver-

sive stimuli (those events that cannot be terminated by responses emitted by the organism) also may have particular relevance to how the abuse events impact people. Research suggests that controllable versus uncontrollable aversive stimuli have differential effects on both non-humans (Ovemer & Seligman, 1967) and humans (Staub, Tursky, & Schwartz, 1971). Uncontrollable events have been shown to produce a variety of disturbances in overt, private, and physiological responses (Mineka & Kihlstrom, 1978). Initial reactions of non-humans exposed to uncontrollable stimuli include increased autonomic arousal, aggressive responding, and motoric agitation, responses that are consistent with many of the documented outcomes of CSA. Following repeated exposure, passivity and suppression of affective responding are observed. Additionally, Staub et al. demonstrated that humans respond quicker to escape controllable versus uncontrollable aversive stimuli. Exposure to uncontrollable stimuli also appears to inhibit one's ability to learn escape/avoidance responding in other situations where the same or similar aversive stimuli are controllable (Seligman & Maier, 1967).

These findings may explain a variety of responses observed following CSA. Many CSA experiences may be conceptualized as uncontrollable because the child is unable to terminate their occurrence. Although some responses emitted by the child (e.g., aggressive or destructive behavior) may result in cessation of abuse, it is more likely that they do not terminate the abuse, and thus eventually may stop. The child then becomes a "passive participant" in the abuse. Additionally, the child may be less likely to emit potential escape-maintained responses in other situations due to exposure to uncontrollable sexual abuse. Thus, findings such as increased risk of revictimization and tendency to remain in abusive relationships may be related to a history of exposure to uncontrollable aversive stimuli. Even though the person who experienced CSA may be able to escape these new situations (i.e., they are controllable), previous conditioning leads to a suppression of responses that would terminate these situations (e.g., leaving the abusive husband, fighting back, yelling "No!") because they were ineffective in similar situations in the past. Additionally, the affective numbing often reported in people who experience CSA may be the result of repeated exposure to uncontrollable abusive events. As a result of her prior history, the adult Sharon reports feeling utterly

helpless with regard to doing anything that may change or terminate her current abusive romantic relationship.

If a thorough behavior analysis reveals that a person experienced uncontrollable abuse, then the clinician may wish to arrange situations so that actions emitted by the person result in meaningful changes in his or her environment. For example, the extremely passive adult woman who experienced CSA may benefit from experiences in which her wishes are respected (e.g., she asks a co-worker not to smoke around her and he stops doing so). Repeated experiences with success in this manner may result in changing the woman's behavior pattern from one of passivity to appropriate assertiveness and increasing her sense of perceived control.

Temporal Changes in Functional Relations

Research consistently demonstrates that children often are affected differentially by abuse situations and that many effects of CSA may not become apparent until the person is an adult (for reviews, see Beitchman et al., 1992; Briere & Runtz, 1993; Browne & Finkelhor, 1986; Kendall-Tackett et al., 1993). Behavior analysis offers an account of why such phenomena may occur. Specifically, environmental variables may differentially impact behavior over time and conditioning that occurs at one point in time may not become apparent for years. Each will be discussed next.

Changes in functional consequences. According to Skinner (1974), not only will people develop more expansive behavioral repertoires over the years through exposure to different contingencies, "... the contingencies affecting children at different ages are different" (p. 67). For example, a parent's attention may be the most potent reinforcer for behavior emitted by a younger child whereas peer interaction may function as a more effective reinforcer for an adolescent. This explains why different people may be responding differently to the abuse events (e.g., the young Sharon complies with the abuse, resulting in James' attention and the adolescent Sharon becomes sexually promiscuous, resulting in peer attention) and to the other variables present in the environment.

When analyzing contingencies, the function of a consequence (what it does) is much more important than its structure (what it is) (Skinner, 1953). Using the above example, the responses emitted by both the young and adolescent Sharon are maintained via the same process

(positive reinforcement), even though the stimuli are structurally distinct. Recognizing that different stimuli may serve the same function and that the same stimuli may serve different functions across time should direct the clinician to search for environment-behavior relations that are most pertinent to the individual being assessed.

Alteration of functional relations. From a behavior analytic perspective, temporal contiguity is not a requirement for explaining behavioral phenomena (Skinner, 1953, 1977). Rather, it is accepted that certain interactions between the environment and the individual may result in changes in functional relations that do not emerge until later when necessary contextual cues occur (Baum, 1994). For example, it is considered parsimonious to attribute the long-term effect of remaining in abusive relationships to conditioning that occurred years ago as a result of sexual abuse by family members without appealing to internal representations or cognitive mechanisms. The abuse that occurred when Sharon was younger taught her to accept such treatment as part of intimate relationships and, now that new relationships are being formed in adulthood, she continues to act similarly.

Private Events

Many adverse reactions of people who experience CSA are covert (e.g., affective numbing, negative self-evaluative thoughts). Although behavior analysis does not appeal to mentalistic explanations of behavior (e.g., the mind, low self-esteem), "private events"—those occurring inside a person—are not only accepted as occurring by behavior analysts, but are of interest because they contribute to developing a thorough understanding of human behavior (Hayes & Brownstein, 1986). Because private events are not manipulable directly (one cannot reach inside a person and turn off feelings of "anger"), they are *not* viewed as independent variables that result in changes in other behavior, public or private. Rather, from a behavior analytic perspective, they are considered dependent variables and are of interest as such. A thorough discussion of how private events are accounted for by behavior analytic theory is beyond the scope of this article (for more information, see Anderson, Hawkins, & Scotti, 1997; Forsyth, Lejuez, Hawkins, & Fifer, 1996; Hayes, Wilson, & Gifford, in press). However, an account of feelings and emotional responding is warranted because many of the effects of CSA involve such responding (Follette, 1994; Polusny & Follette, 1995).

Feelings and emotional responding. Skinner (1953, 1974) discussed how exposure to aversive stimuli may give rise to associated bodily conditions that are felt or observed interoceptively, conditions that are referred to as feelings or emotions. This is relevant to the present topic because CSA may involve aversive stimuli. Guilt, for example, may arise when one emits responses that were previously punished. A child who "feels guilty" following being sexually abused may have a history of being punished for engaging in masturbation by her mother, but then does so with her father. Thus, engaging in the previously punished behavior during the sexual abuse may result in the child "feeling guilty" about the abuse. Feelings of helplessness also may arise when a person is exposed to punishing consequences in a variety of settings. For instance, a boy may "feel helpless" to stop ongoing abuse when attempts to disclose the abuse to his mother, his teacher, the school counselor, and so forth, are all punished.

Although different bodily conditions may be occasioned by environmental stimuli, those conditions are not predetermined feelings. Rather, people are taught by others to label particular private events as certain emotional responses. It is through the process of learning to label private events that they are provided with meaning (Skinner, 1945/1984, 1953). Take, for example, a girl who loses her toys. In addition to evoking overt behavior such as crying, it is likely that the antecedent stimulus of the lost toys occasions private events (e.g., increased heart rate, sweating, a flushed face). In the presence of the crying, she may be reinforced by her mother for saying "I am sad." Thus, crying becomes a discriminative stimulus for reporting feelings of sadness. Additionally, the private events occurring collateral to the crying also may come to acquire stimulus control. Therefore, in the future, the verbal report of the emotion becomes more likely in the presence of those internal stimuli, whether or not the overt behavior also occurs.

Based on the behavior analytic perspective, then, findings that CSA results in negative emotional responding (e.g., feelings of helplessness and guilt) suggest that abusive situations may occasion private events that in turn set the occasion for reporting emotional responding. For example, children who say they "feel guilty" about the abuse may be experiencing private events (e.g., upset stomach, increased heart rate) that have come to set the occasion for that verbal report. Also, people who report "feelings of helplessness" after being sexually abused are

likely to be experiencing private events that historically have been associated with reinforcement for making such statements.

Rule-Governance of Behavior

Rules* and their relation to the impact of CSA will be discussed next for two reasons: (a) it has been suggested that much of human behavior may be governed by rules (Catania et al., 1989) and (b) CSA occurs during a time that many rules about relationships with others may be established as discriminative stimuli.

Although behavior shaped and maintained by contingencies and behavior shaped and maintained by rules may be similar in form (Skinner, 1969), there are distinct differences between the two. First, contingency-shaped behavior can be attributed primarily to unspoken contingencies of reinforcement and punishment, and thus is not dependent on being exposed to a rule (Baum, 1994). For example, the child who learns not to resist the abuse by experiencing the consequences of doing so (e.g., being hit by the abuser for resisting) emits contingency-shaped behavior. In contrast, if the child is told by her abuser that resistance will result in being hit and she does not resist, her not resisting is governed by her abuser's verbalizations (i.e., is rule-governed). Second, research demonstrates that behavior under the control of rules may be "insensitive" to changes in environmental consequences when the change does not involve conspicuous stimuli (Catania, Matthews, & Shimoff, 1982; Galizio, 1979; Shimoff, Catania, & Matthews, 1981). Thus, people are likely to continue responding to rules until doing so leads to punishing consequences. This is in contrast to contingency-shaped behavior that changes as its consequences change (Vaughan, 1989). For example, consider Sharon's refusal to cooperate with the District Attorney's office. She may have learned the rule from James that, "If you tell people what I did to you, I will hurt you and your mother," and thus she continued to refuse to cooperate even after James no longer had contact with the family. Many professionals have been faced with a case in which the child refused to cooperate or recanted previous testimony even though physical evidence was available and the perpetrator was subsequently convicted and jailed. Thus, although the contingencies may change (clearly the abuser cannot hurt the child from jail, assuming he is not getting out soon), the child's behavior continues to be governed by the rule that something bad will occur if she tells. If, however, the same child had

learned to lie about the abuse by being reinforced with praise and gifts from the abuser for doing so, she may begin reporting the abuse when he is no longer present and cannot provide reinforcing consequences for lying.

The analysis of rule-governance of behavior is pertinent to the present topic for three reasons. First, it may account for many of the effects of CSA. For example, the child who is told by the abuser, "I'm doing this with you because I love you," may learn the rule "If you love someone, you have sex with him." This rule may account for the sexual promiscuity often observed following CSA. Also, a tendency toward abusive relationships may be explained via rule-governance (e.g., "If you love someone, then let him hurt you"). Second, as compared to non-abused children, sexually abused children are likely to learn that rules specify very different environment-behavior relations and thus similar situations may occasion different responses. For example, typically children learn that if you care about someone, then you treat that person nicely. Thus, you may see a child bringing toys to her friend at school (an act of caring). Sexually abused children, on the other hand, may learn that if you care about someone, then you engage in sexual behavior with that person. Therefore, the abused child may attempt to fondle her friend at school; thus, the increased likelihood that sexually abused children will abuse others. Third, research on the insensitivity of rule-governance to changes in environmental contingencies provides an empirical basis for understanding the persistence of many long-term effects. For example, Sharon was constantly told by her mother and then by James that she was "no good," teaching her the rule, "If I do anything, then it is wrong." She may respond to this rule by labeling all of her actions as mistakes or incorrect, resulting in what is typically called a "low self-esteem." Even though she may emit responses that produce reinforcement, she may continue to label them in a negative manner because responding to the established rule has not been directly punished. Thus, the finding that low self-esteem often lasts into adulthood following CSA (e.g., Rew, 1989) may be explained through rule-governance.

DISCUSSION

As we hopefully made evident, a behavior analytic approach provides a means of understanding how different variables associated

with CSA may result in both initial and long-term negative reactions. Our goal was to expand upon earlier work on the effect of CSA from behavioral perspectives (i.e., Hoier et al., 1992; Polusny & Follette, 1995), which we achieved in several ways. First, although Polusny and Follette's conceptualization of behavior maintained by escape or avoidance of aversive stimuli is consistent with that put forth in this article, we detailed other behavioral processes that (potentially) account for the myriad initial and long-term reactions observed in this population. Specifically, we applied research on equivalence classes and transfer of stimulus function and controllable and uncontrollable aversive stimuli to the adverse reactions observed. We also described how the variables that affect people over time may change, as well as how early learning may be manifest later in life when appropriate stimulus conditions occur. Second, we added to Hoier and colleagues' discussion of classical and operant conditioning by proposing that two-process theories may best account for the combined role of classical and operant conditioning. Further, our discussion of rule-governance of behavior was based in behavior analytic research on the topic, rather than a cognitive perspective as put forth by Hoier et al. Finally, we provided a more in-depth discussion of how private events, specifically feelings and emotional responses, may be conceptualized within a behavior analytic framework.

Although behavior analysis offers a comprehensive framework for understanding the impact of CSA, practical concerns may limit its applicability. Conducting a complete analysis of the variables affecting the adverse reactions experienced following CSA may be difficult given the likelihood that an unspecified number of controlling variables may occur. Additionally, even if the clinician can identify variables with primary influence over responding, producing a change in behavior often may be difficult due to other factors (e.g., lack of control over those environmental variables). Despite these potential limitations, research has demonstrated the utility of behavior analytic treatments with a variety of client problems including, but not limited to, rape trauma (Kilpatrick & Amick, 1985), behavior problems in children (Kazdin, 1989), depression (Kohlenberg & Tsai, 1994), and family distress (Biglan, 1990). Additionally, research suggests such an approach is effective with people with a history of CSA. For example, Follette (1994) discussed a contextualistic treatment for people experiencing long-term effects of CSA. Also, Rychtarik, Silverman, Van

Landingham, and Pruc (1984) provided a case example of therapy with a person who experienced incest that involved first identifying the functional relations resulting in the problems and then manipulating the environment to produce effective behavior change.

In general, however, clinical and empirical work from a behavior analytic perspective has been relatively absent from the literature on CSA. This is unfortunate because such an approach to understanding and treating the effects of sexual abuse has much to offer clinicians working in this area. Thus, it is important that behavior analysts address this absence. This article offers a step in that direction, but much more needs to be done. For ethical reasons, directly assessing the cause-effect relation between sexual abuse and observed effects obviously is impossible. However, the clinical utility of the approach needs to be explored in greater detail. More case examples and treatment outcome studies are needed to demonstrate empirically how such an approach offers an effective treatment modality. It is only through such work that it can be demonstrated that behavior analysis has a great deal to offer in terms of understanding and treating the effects of CSA.

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