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Childhood physical or sexual abuse as a possible indicator of subsequent adult anxiety disorders

Abstract

In recent years, there has been a growing acceptance that childhood physical and sexual abuse lead to higher rates of psychiatric morbidity in adulthood. Childhood abuse experiences have been reported to be highly prevalent among patients with anxiety disorders. Similarly, childhood incest victims have been found to suffer from a significantly higher rate of anxiety disorders in adulthood especially agoraphobia, than a non-victimized, matched comparison group. Epidemiology studies also support a relationship between childhood abuse and the subsequent development of anxiety disorders. Two separate community surveys found that childhood sexual victimization predicted the later onset of agoraphobia, obsessive-compulsive disorder, and social phobia.

CHILDHOOD PHYSICAL OR SEXUAL ABUSE AS A POSSIBLE
INDICATOR OF SUBSEQUENT ADULT ANXIETY DISORDERS

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Childhood Physical or Sexual Abuse as a Possible Indicator of Subsequent Adult Anxiety Disorders

Anxiety is a universal emotion. In mild form it is experienced at one time or another by everyone; in more extreme form it leads to fears of impending death or catastrophe. The feeling of anxiety may occur without physical symptoms, or it may be accompanied by numerous overwhelming physical symptoms affecting many organ systems; it may cause no change in behavior, or it may lead to immobilization or chronic avoidance. The unpleasantness-and universality-of the symptoms are evidenced by the fact that over 80 million prescriptions for anti-anxiety drugs are dispensed in the United States each year (Wolman, 1994).

Despite its importance, the nature of anxiety remains elusive. According to Freud (1959), Darwin conceptualized anxiety as an instinct; the learning theorist Hull saw anxiety as a drive. For Freud, the problem was “angst,” which is usually translated from the German as anxiety, it is a “nodal point...a riddle of which the solution must cast a flood of light upon our whole mental life” (Freud, 1959. P. 341). For the existentialist Rollo May (1979), anxiety “is described on the philosophical level as the realization that one may cease to exist as a self...i.e., the threat of meaninglessness” (p.193). On the other hand, for Eysenck (1979), anxiety is a conditioned fear response whose nature can be understood without reference to its subjective components. There are many other aspects of anxiety that have been

noted by the numerous clinicians and researchers who have attempted to understand and define it.

History of Anxiety

Anxiety, like other emotions, is difficult to describe. The words used to describe it only approximate our inner experience and may lead to confusion. Any examination of the phenomenology of anxiety is colored by the lexicon in which it is conducted. According to Jablensky (1985), the English word anxiety comes from the Latin word *anxietas* and/or *anxius*. These words contain the root *Angh*, which appears in Greek and in the *Thesaurus Latinae Linguae* in words meaning “to press tight,” “to strangle,” “to be weighted down with griefs.” In the Oxford English Dictionary anxiety means: “1. Uneasiness about some uncertain event, 2. Solicitous desire to effect some purpose, 3. A condition of agitation and depression, with a sensation of lightness and distress in the precordial region,” Jablensky (1985) notes that the English word “anxiety” does not cover the same semantic space as the French *anxiété* or the Spanish *ansiedad* although they all derive from a common root. In French, *angoisse* is used as a near-synonym for anxiety but connotes more strongly the physical sensations accompanying the experience and may be closer to the English “anguish” than to “anxiety.” And the German word *angst* implies, besides “anxiety” and “anguish,” “agony,” “nervous,”

“tense,” “anxious,” “fearful,” “scared,” “frightened,” “alarmed,” “terrified,” “jittery,” and “jumpy” to describe the experience.

Definitions of anxieties

These semantic difficulties have led to a variety of definitions. Confusion over definitions occurs because some of the definitions refer to the affective status emotions while others refer to clinical syndromes. The delineation of clinical syndromes is particularly problematic (Wolman, 1994).

After an extensive review of many of the historical and current definitions of anxiety, Lewis (1970) developed the following list of characteristics common to most definitions of clinical anxiety: (1) it is an emotional state with the subjectively experienced quality of fear or a closely related emotion; (2) the emotion is unpleasant; (3) it is directed towards the future; (4) there is either no recognizable threat, or the threat is by reasonable standards, quite out of proportion to the emotion it seemingly evokes; (5) there are subjective bodily discomforts during the period of the anxiety; (6) there are manifest bodily disturbances.

It is often difficult to draw a line between normal and clinical anxiety. The definition of clinical anxiety is an operational one, determined mostly by how the anxiety affects the patient. If the patient is impaired by the anxiety, seeks treatment, or engages in self-destructive behaviors to control it, the anxiety should be considered clinical. Clinical anxiety can be usefully subdivided, into specific

anxiety disorders. Anxiety may be “free-floating” or occur episodically as panic attacks; these two types may co-exist. Anxiety has subjective, behavioral, physiologic, and cognitive dimensions (Epstein, 1986).

The subjective component of anxiety refers to patient’s descriptions and interpretations of their symptoms (Russel, 1980). How patients present and interpret their symptoms often determines both the focus and course of treatment. Patients will sometimes present with anxiety as their chief complaint although more commonly patients present with a variety of physiological symptoms, like heart palpitations (associated with fear of dying). Russel (1980) found that affective words could be arrayed in a circle in which the horizontal line is drawn between displeasure and pleasure and the vertical line is drawn between arousal and quiescence.

Although patients typically use terms such as, tense, panicky, terrified, jittery, nervous, shaky, anxious, wound-up, apprehensive, on edge, worried, scared, high-strung, fearful to describe their anxiety, more than not, they will seek help for problems caused by the anxiety or for symptoms associated with specific disorders. Agoraphobics for example, most frequently seek treatment when their avoidance of day-to-day tasks becomes intolerable either to themselves or to those close to them (Wilson & Kennard, 1988). Patients with generalized anxiety disorder or social phobia who use excessive amounts of alcohol to reduce their

anguish may present to the therapist or be referred for treatment of alcohol abuse. Patients with panic attacks will often present with many of the symptoms reported in Freud's description of Katherina (Freud & Breuer, 1959).

Symptomology of Anxiety

The most common somatic symptoms associated with anxiety involve the muscular, sensory, cardiovascular, respiratory, gastrointestinal, genitourinary, and autonomic system (Oxford, 1995). Thus far the research has discussed symptoms without considering patient's interpretations of what the symptoms mean. How patients interpret the symptoms critically influences the extent of anguish and impairment and their decisions regarding where to seek help. How patients describe their symptoms will affect how they will be treated by a physician or psychotherapist. Such descriptions will also influence a patient's own estimate of the effectiveness of treatment.

The relationship between cognitive appraisal and anxiety has received considerable attention in recent years (Bagley & Ramsey, 1986). Various systematic investigations have found that cognitions like "I am going to die of a heart attack," "I may lose control of myself and injure someone," "I can not cope," "I will make a fool of myself" are common among these patients (Bagley & Ramsey, 1986). The most frequently encountered themes refer to death, disease, social rejection, or failure, according to Beck and Emery (1994). Cognitions

generally precede the onset or exacerbation of experienced anxiety and that the amount of anxiety is proportional to (1) the degree of plausibility (to the patient) of the hypothetical danger, (2) the patient's notion of the severity of harm from the danger, and (3) his/her estimate of the likelihood that the dreaded event will occur (Beck & Emery, 1994). According to Briere and Runtz (1988), anxiety disorders are accompanied by thinking disorders as well as dysfunctional thoughts. Thinking disorders in anxious patients include difficulty with attention, concentration, and vigilance, and loss of objectivity. Anxious patients are prone to stimulus generalization and catastrophizing; they assume that situations similar to one where they experienced panic will produce dire consequences. They also display selective abstraction and loss of perspective: anxious patients pay attention to the possible harmful effects of a situation but not to the helpful or beneficial ones. Such patients also classify situations dichotomously-as safe or unsafe-rather than in gradations of safety (Briere & Runtz, 1987).

Extensive research (Alexander & Lupfer, 1987; Fromuth, 1986; Briere & Runtz, 1987) has revealed many complicated interactions among the various physiologic and biochemical aspects of anxiety, yet the sympathetic nervous system's emergency reaction labeled flight/fight, as described by Cannon (1929) remains a core feature. A threatening situation may cause release of various hormones and lead to increases in sympathetic and parasympathetic nervous

system activity. The physiological result is mobilization of the body for fight/flight. Increased heart rate and cardiac output makes the blood supply more ample; opening of the pharynx allows more air to enter the lungs and subsequently enter the bloodstream; blood is shifted from the skin and guts to the muscles where it is needed; reduction of blood to the skin and enhanced clotting minimize damage from a wound; and, finally, immunocompetence is enhanced (Browne & Finkelhor, 1986).

It is presumed that inappropriate and frequent elicitation of this response also causes some of the symptoms associated with psychologically tense or upsetting situations. For example, pain in tense muscles, headache, gastrointestinal upset, and sleeplessness. The archetypal patterns of physiologic response to threatening stimuli depending on their past experiences; medication, drug use, and other life-style habits; receptor sensitivity and architecture; and appraisal of the situation and other cognitive patterns. Furthermore, according to Eaton, Kessler, Wittchen (1994) the same physiologic response is not routinely elicited in the same individual by the same stimulus. The complexities of these processes have intrigued many researchers.

Behavioral symptoms associated with anxiety may be classified into acute and chronic responses. In animals there is first the recognition of threat, perhaps associated with behavioral signs of fear, followed by four basic responses to threat:

withdrawal, immobility, aggressive defense, and submission (Marks, 1987). The behavioral signs of fear include a fearful facial expression, trembling, sweating, pale face, hyperventilating, increased muscle tension, and staring. The most overt and acute fear response-the fearful face characterized by raised and drawn-together eyebrows, a hard stare quality, and mouth corners drawn back-is universally recognized as fear (David, Giron, & Mellman, 1995).

Withdrawal, which may occur as flight, escape, or avoidance, is often associated with a fearful facial expression. Another response to threat is to become immobile. Immobility is classified as attentiveness, in which the animal remains inert while carefully observing its environment-a phenomenon suggested by the phrase "freeze in your tracks," or as tonic immobility, in which a previously active animal exhibits prolonged freezing and decreased responsiveness (David, Giron, & Mellman, 1995). An example of tonic immobility is the opossum "playing dead." Attentive immobility is associated with the animal being able to identify better the nature of the threat. Predators are less likely to attack an animal exhibiting tonic immobility. Aggressive defense is usually associated with displays of threat and has obvious survival value. Animals also may attempt to deflect an attack; for instance, a parent kill-deer may lead a predator away from a nest through conspicuous behavior, sometimes by simulating being wounded.

Finally, according to McNally (1994) animals may be directly submissive. Signs of submission seem to reduce aggression and to be understood even across species. For instance, diverting one's eyes from an attacking animal may reduce the intensity of the attack.

Some of the acute behavioral symptoms of anxiety seen in humans may be related to these four basic responses to threat; they are further elaborated by the patient's experience, cognition, physiology, pathophysiology, and coping responses. For instance, during anxiety episodes some patients feel that their coordination is impaired, that they might faint and that they can not move their feet. According to McNally (1994) all of these symptoms may represent immobility.

One curious yet often overlooked set of behaviors occurring during anxiety episodes, particularly those considered to be panic attacks, are subtle compulsive safety or avoidance rituals. For instance, a patient who had experienced panic attacks in high places would touch a stair tread a specific number of times at each floor when climbing stairs. A businessman who reported panic attacks but denied any avoidance revealed upon further questioning that he/she never scheduled morning business meetings for fear of being overanxious at those times. A manager at a machine shop would never close the door of a room behind him because of anxiety experienced in closed place (McNally, 1994).

Theories of anxiety

Over time, the relationship of behavior to anxiety becomes complicated.

One theory of agoraphobia (a fear of leaving a safe place or venturing into crowded areas) postulates that panic attacks, often the first symptom of anxiety, lead to avoidance and that avoidance leads to a disability in a variety of domains (McNally, 1994). The behavior associated with anxiety frequently becomes independent of the anxiety itself. Furthermore, behavior engaged in for the purpose of controlling anxiety sometimes exacerbates the anxiety. For example, some patients drink excessive amounts of coffee when they feel anxious, yet the caffeine in coffee produces anxiety and even panic. According to Eaton, Kessler, and Wittchen (1994) another patient became panic-stricken on freeways. When he experienced a panic attack on the highway he immediately exited and returned to his office. Soon, he began to feel that the panic attacks were disrupting his ability to keep his business going, and he began to worry that he would not be able to support his family. This worry was associated with even more frequent panic attacks.

The most serious complications of anxiety disorders are often associated with the patient's attempts to cope with anxiety. Patients may become severely avoidant or depressed, abuse drugs or alcohol, or become helplessly dependent on their family, friends, and the medical system. The avoidance, when manifested as

agoraphobia, may be one of the most disabling of all psychiatric problems, according to McNally (1994). Thus, chronic symptoms such as avoidance, which result from efforts to cope with anxiety, are often more disabling than the anxiety itself and need to become the focus of treatment.

The origins and meaning of anxiety and fear have preoccupied many of the great experimental and clinical theorists of the 20th century (Gelder, 1989). Freud was concerned with the problem of anxiety throughout his career and revised his theory at least four times. Much of the history of learning theory has been devoted to understanding and treating simple fears and anxiety. Extensive work by neuroscientists has been devoted to characterizing the biological nature of anxiety. Interest in anxiety is keener today than ever before, and the resulting investigations have enhanced the efforts to treat most anxiety disorders (Gelder, 1989). Yet, despite effective treatment, the nature of anxiety remains elusive. No one theory accounts for all the behavioral, biological, psychological, and physiological aspects of anxiety. According to Woods, Charney, McPherson, and Gradman (1987), among the impediments to developing an integrated theory of anxiety is its multifaceted nature. Anxiety and fear can be observed and/or experienced in a number of dimensions—subjective, cognitive, behavioral, physiologic—and these dimensions largely determine how “the problem” is defined. In addition, the field is in transition.

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or loss of, a loved object or a loss of its love. These are perceived as real threats by the child, who sometimes finds himself/herself helpless in the face of them. In adults, any aspect of mental life associated with these dangers triggers anxiety. (Freud & Breuer, 1966). Psychological defenses act to reduce anxiety, often by regulating or inhibiting the wishes related to the fantasized dangers.

Freud's model assumes that anxiety may be generated by unconscious ideas, thoughts, or fantasies, the content of which frequently relates to childhood events. The unconscious determinants of anxiety are revealed by the psychodynamic process. According to Silber (1984) most psychoanalysts view inhibitions, symptoms, and anxiety as being inherently connected. The psychoanalytic model of anxiety assumes that anxiety is a signal of the unconscious fantasies of imagined dangerous situations that are provoked by instinctual wishes or by perceptions of external situations.

Many patients with anxiety disorders have a history of problems with separation, dating from their earliest memories. In two landmark books, John Bowlby (1973) reintroduced the importance of instinctual drives in determining anxiety. Bowlby attempts to integrate modern ethological concepts with data from child observation and with psychoanalytic and systems theory to explore the nature of the infant's attachment to its mother and processes involved in separation as well as its effects. Bowlby considers attachment to be a primary instinct.

According to Bowlby (1969) the characteristics of an instinct are as follows: (1) it follows a recognizably similar and predictable pattern in almost all members of a species; (2) it is not a simple response to a single stimulus but a behavior sequence that usually runs a predictable course; (3) it helps preserve or continue the species; (4) it manifests itself even when all the ordinary opportunities for learning it are absent. Instincts are manifest as behavioral systems, which include innate behaviors and the “control” mechanisms integrating and adapting them with the environment. Anxiety is an innately programmed component of the response to separation (nonattachment).

Two important aspects of behavioral systems are what activates them and what deactivates them. Behavioral systems may be activated by a variety of both external and internal events or stimuli. Behavioral systems are also subject to ontogenetic development. A classic example of ontogeny is the “imprinting” that causes newly hatched ducklings to follow the object they perceive after birth. But the “imprinting” characteristic of behavioral systems disappears or is suppressed soon after birth in the course of development, through presumed, as yet unidentified, changes in the central nervous system (Woods, Charney, McPherson, & Gradman, 1987).

Learning theories of anxiety have undergone considerable transformation. For most of this century, learning theories of anxiety focused mostly on how

simple phobias and fears are acquired. More recently, however, as simple models of classical conditioning have proven inadequate to explain even simple fears and phobias, and driven by the pragmatic tradition of behavior therapy to develop more effective treatments, learning theorists now embrace interactive models that attempt to explain the multifaceted nature of anxiety disorders.

While Freud was completing his introductory lectures on Psycho-Analysis, Watson and Morgan (1917) were developing a radically different view of anxiety and fear. Influenced by Pavlov's theory of classical conditioning (Pavlov, 1927), Watson and Morgan argued that anxiety was a conditioned response.

Unconditional stimuli (UCS) can produce unconditional responses (UCR); for instance, the sight of a fearful object (UCS) produces a change in autonomic activity (UCR). If a conditioned stimulus (CS) is frequently paired with an UCS, eventually the CS comes to elicit anxiety as a conditioned response (CR).

Respondent conditioning theory postulates, for instance, that the occurrence of a panic attack (UCR), perhaps originally provoked by external stimuli (UCS), becomes conditioned to other stimuli (CS). The conditioned stimuli might become quite different from the original stimuli with properties like the original (CS) can elicit the (CR).

A recent trend in behavior therapy has been to attribute anxiety disorders to cognitive events. Cognitive formulations often share, more or less, three basic

assumptions (Keyl & Eaton, 1990): (1) Expectancies of harm mediate anxiety responses, (2) Expectancies of harm are learned, (3) The magnitude of anxiety covaries with the subjective likelihood of harm. Individuals learn to anticipate danger/harm in the presence of certain cues. The anticipation or expectation of danger produces anxiety responses or anxiety states (Bolles & Fanselow, 1980). The model looks like this: Cognitive theorists believe that conditioning requires awareness of the relationship between the cue and anxiety. The expectancy of harm may be learned through respondent conditioning, observational learning, and information. Finally, some cognitive theorists believe that the magnitude of anxiety covaries with the subjective likelihood of harm. Put differently, the greater the likelihood of harm estimated by the individual, the more intense the anxiety (Beck & Emery, 1994).

The most comprehensive contemporary model of human motivation, thought, and action is called social cognitive theory, developed by Bandura (1986). Social cognitive theory advances an interactional model of causation in which environmental events, personal factors, and behavior all influence one another. As opposed to psychodynamic theory, social cognitive theory argues that people are not driven by inner forces; unlike radical behaviorism, it argues against a passive conception of humans shaped and controlled by external stimuli. Social

cognitive theory incorporates the human capabilities of symbolizing, forethought, vicarious learning, self-regulation, and self-reflecting (Bandura, 1986).

Bandura (1986) holds that no explanation is sufficient to justify the development of anxiety and fears. Rather, Bandura suggests that experience creates expectations that regulate action. In the case of simple fears, the development occurs as follows: an aversive experience-either personal or vicarious-instills the belief that one is unable to control the unpleasant outcome associated with the aversive event. Threats that cue the aversive experience produce arousal and various defensive maneuvers. However, various coping mechanisms, including the development of strategies to avoid the aversive experience, may help a person avert the unpleasant outcomes, and the fear disappears. Once a person becomes adept at self-protective behavior, he/she is likely to carry out the behavior in potentially threatening situations, even before becoming frightened. Protective strategies are activated under conditions of predicted rather than actual threats. Once established, defensive behavior is difficult to eliminate because it perpetuates the individual's estimation that he/she is unable to cope with the fearful situation.

The psychophysiological models assume that psychological and physiologic components of anxiety are interactive. In some ways the cognitive models discussed previously could be considered interactive in that peripheral signs of

anxiety contribute to cognitions. However, the psychophysiologic model places greater emphasis on physiology than does the pure cognitive model. For instance, Clark, Salkovskis, and Chalkley (1985) postulate that internal sensations of anxiety lead to apprehension and fearfulness, which then causes hyperventilation; the hyperventilation exacerbates existing symptoms and may cause additional ones, further increasing apprehension and fearfulness. This vicious cycle may then lead to a panic attack. Most psychophysiologic models assume that panic is not qualitatively distinct from other forms of anxiety.

The complementarity of these approaches to anxiety in particular and to mental illness in general can perhaps best be seen in their application to a specific clinical syndrome-agoraphobia. From a clinical point of view, as one is aware, agoraphobia often begins with the sudden onset of a panic attack while the patient is in a public, often crowded, open spaces and crowds and voluntarily restricts his activities, often becoming completely housebound as a result (Wilson & Kennard, 1988). Several aspects of this process need explanation: (a) the source of the anxiety; (b) the severity of the anxiety, which, as has been pointed out (3), when it appears in the form of a panic attack, is remarkable for the suddenness of its appearance and for its severity in contrast to the often milder forms of chronic anxiety; (c) the fact that following the appearance of the anxiety, the situation in which the anxiety occurred becomes a potential source of anxiety although there is

nothing inherently frightening or dangerous in the situation itself, which has, in other words, become a phobic stimulus (Wyatt, Portnoy, Kupfer, Snyder, and Engelman, 1991).

Correlations of abuse and agoraphobia

Past experience, genetic endowment, and development all influence the onset, maintenance, and exacerbation of anxiety disorders. In recent years, there has been a growing acceptance that childhood physical and sexual abuse lead to higher rates of psychiatric morbidity in adulthood (Browne & Finkelhor, 1986; Bryer, Nelson, Miller & Krol, 1987; Chu & Dill, 1990). Childhood abuse experiences have been reported to be highly prevalent among patients with anxiety disorders (Breier, Charney, & Heninger, 1986; David, Giron, & Mellman, 1995; Fierman, Hunt, Pratt, Warshaw, Yonkers, Peterson, Epstein-Kaye & Norton, 1993). Similarly, childhood incest victims have been found to suffer from a significantly higher rate of anxiety disorders in adulthood especially agoraphobia, than a nonvictimized, matched comparison group (Pribor & Dinwiddie, 1992).

Epidemiologic studies also support a relationship between childhood abuse and the subsequent development of anxiety disorders. Two separate community surveys found that childhood sexual victimization predicted the later onset of agoraphobia, obsessive-compulsive disorder, and social phobia (Burnam, Stein, Golding, Siegel, Sorenson, Forsythe & Telles, 1988; Saunders, Villopontaux,

Lipovsky, Kilpatrick & Veronen, 1992). Most recently, a British study of inner-city women found that early adverse experiences (including neglect, physical abuse, and sexual abuse) predisposed them to the development of anxiety disorders in adulthood (Brown, Harris & Eales, 1993). A strength of this study was the standard administration of a comprehensive series of trauma probes to all participants, both in the clinical setting and in the community. Although it is possible that a reporting bias resulted in patients reporting greater rates of abuse than community subjects, the literature strongly suggests that the methods which were employed would militate against this occurrence (Ross & Joshi, 1992; Ross, Heber, Norton, Anderson, & Burchet, 1989).

The central question raised by these findings is: Does childhood physical or sexual abuse increase the risk for the development of anxiety disorders especially agoraphobia? One must consider the possibility that this risk is conferred indirectly, perhaps through an association between physical or sexual abuse and other experiential factors that could possibly predispose one to anxiety disorders such as separation from parents (Kendler, Martin, Heath & Eaves, 1992), which might be expected to occur more frequently in the case of abuse as a result of intervention by social service agencies. If, however, the risk is conferred directly, then how might this occur? Primate data suggest that adverse early experiences can result in long-term neurobiological alterations that might predispose subjects

to anxiety-related disorders (Rosenblum, Coplan, Friedman, Bassoff, Gorman & Andrews, 1994). It is also reasonable to expect that early abuse would modify a child's assumptions about self and world. In particular, early victimization would be expected to lead to hyper vigilance, to concerns about the integrity of one's own body, and to over predictions of dangerousness. It is perhaps no coincidence that cognitions of this kind are typical of patients with agoraphobia (McNally, 1994).

Finally, in the context of the literature reviewed, the findings submit that women's markedly greater exposure to childhood physical and sexual abuse, compared to men (Burnam & White, 1988; Mullen, Martin, Anderson, & Romans 1993), may contribute to the greater prevalence agoraphobia among women.

Recent research on the long-term impacts of childhood sexual abuse has linked molestation experiences to a variety of later problems and symptoms, including depression (Briere & Runtz, 1987; Gold, 1986; Peters, 1988), interpersonal difficulties (Briere & Zaidi, 1989; Herman, 1981; Tsai & Wagner, 1978), sexual problems (Jehu, Gazan, & Klassen, 1984; Maltz & Holman, 1987), and anxiety disorders (particularly agoraphobia) (Briere & Runtz, 1986; Sedney & Brooks, 1984). Similar research on the long-term effects of physical abuse is more sparse, but appears to stress psychological symptoms (Briere & Runtz, 1988a; Cole, 1986; Runtz, 1987), sexual problems (Cole, 1986), and anxiety disorders

(particularly agoraphobia) (McCord, 1983; Pollock, Otto, Rosenblum, & Sachs 1992).

Recent research on child physical and sexual abuse indicates that such experience is commonly associated with a variety of long-term psychological symptoms. In their review of the physical and sexual abuse literature, for example, Browne and Finkelhor (1986) concluded that, "...sexual and physical abuse is a serious mental health problem, consistently associated with very disturbing subsequent problems in some important portion of its victims" (p. 72).

Typically, such studies examine the childhood histories of various samples of adult women and find that individuals who were abused as children are more likely than their nonabused cohorts to report symptoms of anxiety especially high rates of agoraphobia (Bagley & Ramsey, 1986; Briere & Runtz, 1988; Gold, 1986).

Despite this interest in the effects of childhood sexual and physical abuse in female populations, however, surprisingly little attention has been paid to males who were abused as children (Browne & Finkelhor, 1986). Finkelhor (1986) has suggested that this relative neglect is not due to an absence of male abuse victims, but rather the result of a) investigator assumptions regarding the "typical" abuse case (i.e., an older male victimizing a young girl), and b) social phenomena that discourage male abuse disclosures, such as expectations of self-reliance and

avoidance of implied homosexuality (most sexual abusers, regardless of the gender of the victim, are male). Recent data, according to Finkelhor (1984), suggest that at least 3% to 9% of men in the general population were abused as children.

Because of the dearth of information on males, the impact of such victimization is largely unknown, nor do we have much data on potential differences in male versus female abuse effects.

According to Briere, Evans, Runtz, and Wall (1988), a history of childhood sexual and physical victimization was associated with later psychological dysfunction in both male and female clinical subjects. Interestingly, despite the fact that males reported less extensive and less extended abuse than did females, there were no gender differences among abused subjects in terms of a Trauma Symptom Checklist (TSC-33) (Briere & Runtz, 1988). Thus, to the extent that the current data are representative, it is possible that childhood abuse victimization has an equivalent impact on males and females regardless of any differences in its severity or duration between the sexes. This conclusion is congruent with the results of a study by Urquiza and Crowley (1986), who found no clear differences because of gender among former abuse victims on the ten scales of the Moos Family Environment Questionnaire, the Counseling and Empirical scales of the Tennessee Self-Concept Scale, and the various subscales of the TSC-33 (although the total TSC-33 score was higher for males).

Gender differences

An alternative hypothesis is that childhood abuse is even more traumatic for males than for females, since lower male abuse levels were associated with symptomatology equal to that of more severely abused females. This possibility suggests that had males been abused at levels equivalent to females (i.e., equal extent and duration), their symptom scores might have been higher than those of females subjects. Such extrapolation must be made with great care, however, since it may be impossible to determine what equivalent amounts of abuse would be for male versus female subjects. Furthermore, the present study found no effect of extent of abuse on symptomatology, results which are congruent with most other studies in this regard (Browne & Finkelhor, 1986).

The finding of a physical and sexual abuse main effect in this study according to Briere, Evans, Runtz, & Wall, (1988) replicates other work by the authors and others with regard to greater suicidal tendencies and psychological symptomatology in subjects with a history of childhood sexual and physical victimization. Although the current data indicate that such patterns of abuse-related problems occur in both sexes, it cannot be stated that all postabuse effects are manifested equally in males and females, since only a limited domain of difficulties was tapped in the present study. It is quite possible, for example, that male abuse victims may be more prone to act out their trauma through violence

toward others, whereas females may be more likely to act out their trauma inward in terms of revictimization or self-destructive acts (Carmen, Reiker, & Mills, 1984; Friedrich, 1990; Runtz, 1987). Future research in this area is clearly needed, with special attention to those gender-specific mechanisms that may mediate between psychological impact and subsequent behavior toward both self and others.

According to Pollack, Otto, Rosenbaum, and Sachs (1992), there was not a statistical significance and the findings for patients with agoraphobia did not strongly support previous descriptions of a role for childhood sexual or physical abuse in the development of adult panic disorders. It is possible according to Pollack et al., (1992) that patients may have under reported their history of abuse, or that a larger sample may have detected a significant association.

Recently, four studies have assessed psychological symptomatology among samples that are more representative of individuals who have been physically and sexually assaulted as children. Peter (1988) conducted a study in which childhood assault was found to be associated with indicators of adult anxiety disorders. Bagley and Ramsey (1986) assessed psychological reactions associated with child sexual and physical assault, finding higher levels of agoraphobia among the assaulted. Kilpatrick, Veronen, Villeponteaux, and Ruff (1992) found a higher prevalence of adult anxiety disorders among victims of childhood victimization than among nonvictims. According to Sedney and Brooks (1984), childhood

sexually or physically assaulted subjects reported higher levels of anxiety in adulthood.

Risk factors for Agoraphobia

The experience of being sexually and physically assaulted as a child is associated with increased risk for later onset of adult anxiety disorders (Burnam, Stein, Golding, Siegel, Sorenson, Forsythe, & Telles (1988). This study estimated that those who reported being physically and sexually assaulted had a two- to four-fold increased risk for later having a first episode of an anxiety disorder relative to those who reported no episodes of physical and sexual assault in their lifetimes. These results are consistent with previous studies, (Urquiza & Crowley, 1986; Wilson & Kennard, 1988; Wolman, 1994) largely based on self-selected samples, that have found high levels of psychopathology among those who have been physically and sexually assaulted. The strength of this study stems from an examination of this relation in a large sample representing an adult household population, from the assessment of specific mental disorders using a diagnostic interview, and from the inclusion of men in the sample. One limitation of this study, therefore, is that it failed to cover some disorders that one would expect on the basis of prior literature to be associated with physical and sexual assault.

Among persons who reported a physical or sexual assault, Burnam et al., (1988) examined the question of whether characteristics of the assaulted predicted

the likelihood of later onset of agoraphobia. Gender differences in vulnerability to disorder after assault might occur for a variety of reasons. Males are much less frequently assaulted than females both in childhood and adulthood. As a result, such an experience may be more traumatic or humiliating for males, resulting in a higher probability of disorder after assault. On the other hand, data presented by Sorenson (1987) suggested that assaulted females are more likely to be harmed or threatened with harm than males, although assaulted males are more likely to be pressured for sexual contact. The assaults reported by males, therefore, may be less violent and result in less disorder. The study suggests that, although females are at greater risk for becoming victims of sexual and physical assault, the impact of assault on mental health status does not differ considerably between the sexes. Assaulted males were more likely than assaulted females to report later onset of alcohol abuse or dependence rather than to internalize the abuse.

According to Moisan & Engels (1995) an important predictor of vulnerability to disorder after assault is the age at which a first sexual and physical assault occurs. Those assaulted in childhood were more likely than those first assaulted as adults to report later onset of anxiety disorders. Age of first sexual and physical assault was the only variable related to the circumstances of the sexual and physical assault that was examined in this study. It is likely that other circumstances of the assault experience, such as relationship to the assailant,

degree of force or threat used by the assailant, the physical contact and harm experienced during the assault, and whether it was a single event or a repeated experience (such as incest) are important predictors of disorder following assault. This study was unable to examine these factors because only limited information was collected on the circumstances of the assault when more than one such experience was reported.

The empirical literature on child physical or sexual abuse, according to Browne & Finkelhor (1986), does suggest the presence in some portion of the victim population of many of the initial effects reported in the clinical literature, especially reactions of fear, anxiety, depression, anger and hostility, and inappropriate sexual behavior. However, because many of the studies lacked standardized outcome measures and adequate comparison groups, it is not clear that these findings reflect the experience of all child victims of sexual or physical abuse or are even representative of those children currently seen in clinical settings. At this point, according to Browne and Finkelhor (1986) the empirical literature on the initial effects of child physical or sexual abuse would have to be considered sketchy.

On the other hand, empirical studies with adults confirm many of the long-term effects of sexual or physical abuse mentioned in the clinical literature (Greenwald, Leitenberg, Cado, & Tarran, 1990; Pribor & Dinwiddie, 1992; Thyer

& Waller, 1993). Adult females victimized as children are more likely to manifest depression, self-destructive behavior, anxiety, feelings of isolation and stigma, poor self-esteem, a tendency toward revictimization, and substance abuse.

Difficulty in trusting others and sexual maladjustment in such areas as sexual dysphoria, sexual dysfunction, impaired sexual self-esteem, and avoidance of or abstention from sexual activity.

In the study by Bryer, Nelson, Miller, & Krol, (1987) almost three-quarters of their subjects had been physically and/or sexually abused at some time during their lives is striking. This rate is higher than those found in previous reports for female patients (Carmen, Reiker, & Mills, 1984; Emslie & Rosenfield, 1983; Hussian, 1983). This discrepancy may be due to such differences in methodology as using a direct questionnaire rather than chart review. Also important is the finding that perpetrators of early abuse were often members of the nuclear family, usually fathers or stepfathers and or/brothers.

Although the effectiveness of a questionnaire methodology for studies of this type has been demonstrated, this method has obvious limitations. For example, the results probably underestimate the incidence of abuse because many of the disturbed potential subjects could not give informed consent or complete a self-report instrument. The results indicate that the more severely disturbed patients were more likely to have been abused in childhood; thus, inclusion of more

disturbed subjects might have further elevated the rates and correlations with symptom severity. Also, suppression and repression of memories of these traumatic events may have been factors in some eligible subjects' choosing not to participate after reading a description study (Herman, 1986).

The correlation of the severity of adult anxiety symptoms with childhood physical and sexual abuse appears to be a possible indicator of subsequent adult agoraphobia. The finding is consistent with other reports (Brooks, 1982; Carmen, Reiker, & Mills, 1984; Sedney & Brooks, 1984) and bears further investigation. These results suggest that victims of childhood abuse continue to experience longstanding negative consequences specifically of anxiety. The discriminant function and logistic regression analyses demonstrated that aspects of functioning related to these longstanding negative consequences could be used to aid in the identification of patients with a history of abuse.

Discussion

The literature has shown that childhood physical or sexual abuse does increase the likelihood for the development of adult anxiety disorders especially agoraphobia. The growing realization that agoraphobic avoidance is basically a complication of anxiety about a fear of panic is supported by reasonably strong evidence (Ross & Joshi, 1992). Typically, over three-quarters of panic-disordered

patients manifesting extensive agoraphobia disorders are women who have suffered childhood physical or sexual abuse (Brown, Harris, and Eales, 1993).

Abuse has profound deleterious effects on psychological functioning. The usual secrecy and denial of the abuse in the family render the child unable to deal with severe trauma in interactions with those adults on whom he/she must rely on. The child is simultaneously forced to deal with overwhelming emotions and to deny a large part of reality. Both clinical experience and these data suggest that the anxiety afflicted patients needing help may have been abused as children. They present clinicians with puzzling dilemmas which result not only from the severe original trauma but also from the subsequent secrecy and denial that distort the victim's significant relationships, including those with professionals. Extreme confusion and shame render patients particularly unable to initiate disclosure of abuse; professionals' not initiating discussion of the topic of abuse can transmit a message confirming patient's belief in the need to deny the reality of their experience. Patients' attempts to deal with their distress, then, can take even more indirect paths, leading to the development of more severe and confusing symptoms.

Thus, even in the face of extreme violation, some individuals develop sufficient psychological resources to survive childhood abuse without professional help. Others, however, become outpatients or inpatients and often present a

puzzling array of symptoms. Although more refined information awaits further studies, the findings reported here have significant clinical relevance.

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