ATTRIBUTIONAL STYLE, LIFE EVENTS, AND ADJUSTMENT IN ADULT SURVIVORS OF CHILDHOOD SEXUAL ABUSE

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In recent years a generous amount of literature on the negative consequences of childhood sexual abuse has emerged. The consequences of abuse often appear as cognitive, affective, and behavioral difficulties that may persist well into adulthood. Studies examining adjustment in child and adult survivors of childhood sexual abuse demonstrate that CSAS experience a wide array of difficulties such as depression, mania, anxiety, substance abuse and dependence as well as sexual dysfunction, problems in interpersonal relationships, and difficulties in social functioning (for reviews, see Brown & Finkelhor, 1986; Polusny & Follette, 1995). Clearly, as a group, survivors of sexual abuse are more likely to endure psychological difficulties than those without an abuse history.

However, not all survivors of childhood sexual abuse experience problems with adjustment. Among the variables that have been found to predict differential adjustment are various abuse characteristics such as the duration and frequency of abuse, relationship to perpetrator, and the use of force or threat of force (for reviews see Brown & Finkelhor, 1986; Beitchman, Zucker, DaCosta, Akman & Cassavia, 1992). Psychosocial variables such as social support and family functioning have also been tied to differences in adjustment among survivors of childhood sexual abuse (for review, see Beitchman et al., 1992). Although this evidence adds to a growing body of literature, much remains unknown in terms of predicting the differences in adjustment that CSAS experience.

Two factors that may help explain differences in adjustment among survivors are life events and attributional style. The purpose of this project was to investigate the

attributional style and life events seen in women with a history of childhood sexual abuse and to examine the role of these factors in predicting the adjustment of these women. It was proposed here that attributional style and life events interact to predict the adjustment of childhood sexual abuse survivors. Before the specific hypotheses of this study are discussed, however, a review of the literature is offered on the incidence and prevalence of childhood sexual abuse, effects of abuse, adjustment issues, life events, and attributional style.

Childhood Sexual Abuse

In recent years a significant amount of research has been generated on childhood sexual abuse. A growing body of literature proposes that there are immediate effects of childhood sexual abuse and long-term effects in adulthood (Kendall-Tackett, Williams, & Finkelhor, 1993). In addition, studies have suggested that childhood sexual abuse is quite prevalent.

Studies of adult survivors of childhood sexual abuse have identified varying prevalence rates. Retrospective studies examining adult women suggest that prevalence rates range from as low as 6% to as high as 62% (Peters, Wyatt, & Finkelhor, 1986). Although the range of these rates is quite broad, Peters et al. estimate that approximately 25% to 35% of all women have experienced childhood sexual abuse at some point in their lives. Other reports suggest that between 20% to 30% of adult women have been sexually abused as children (Finkelhor, Hotaling, Lewis, & Smith, 1990). Reviews of the literature report similar prevalence rates of 15% to 33% (Polusney & Follette, 1995). Studies of female clinic populations indicate prevalence rates between 35% and 75% (for review see

Polusney & Follette, 1995). In part, this wide range may be due to variations in the reporting and documentation of cases of childhood sexual abuse. Other differences appear to be related to methodological factors in the studies conducted (e.g., population sampled, definition of childhood sexual abuse employed, and assessment method employed).

Possible Effects of Childhood Sexual Abuse.

Research on the immediate effects of sexual victimization during childhood reveals several consequences. Sexualized behavior, anxiety, depression, withdrawn behavior, somatic complaints, aggression, and school problems are all initial symptoms often seen in sexual abuse survivors (for reviews, see Beitchman, Zucker, Hood, DaCosta, & Akman, 1991; Kendall-Tackett, Williams, & Finkelhor, 1993). However, Browne and Finkelhor (1986) caution that all CSAS do not experience these or similar symptoms.

Similarly, Browne and Finkelhor provide the same caution for investigating long-term adjustment. In effect, although many long-term symptoms are quite prevalent in survivors of childhood sexual abuse as a group, not all CSAS experience long-term difficulties. Adjustment issues that appear in later life have been well researched and are adequately consistent across studies.

Long-term difficulties with depression have been noted in adult survivors of child sexual abuse. Numerous researchers have found that women reporting childhood sexual abuse experience more problems with depression as compared to nonabused women (for review, see Polusny & Follette, 1995). Such difficulties have been noted in clinic samples (Braver, Bumberry, Green, & Rawson, 1992; Pribor & Dinwiddie, 1992), community samples (Saunders, Villeponteax, Lipvosky, Kilpatrick, & Veronen, 1992), and student

samples (Yama, Tovey, & Fogas, 1993).

Anxiety is another frequently reported long-term effect of child sexual abuse. Yama et al. (1993) found that sexually abused women reported higher levels of anxiety than nonabused women. Others have found that compared to nonvictims, anxiety disorders are more prevalent in CSAS. Pribor & Dinwiddie (1992) examined a clinic sample and found survivors had higher rates of agoraphobia, obsessive-compulsive disorder, and panic disorder. They also found similar differences with respect to social and simple phobias; a result also supported by Saunders et al. (1992). In addition, numerous researchers have found post-traumatic stress disorder to be more prevalent in CSAS as compared to nonvictims (Pribor & Dinwiddie, 1992; Rodriguez, Ryan, & Foy, 1992; Saunders et al., 1992).

Substance abuse has also emerged as another long-term effect of childhood sexual abuse (Briere & Runtz, 1987; Burnam et al., 1988; Rodriguez et al., 1992). Zierler et al. (1991) found that adult CSAS were twice as likely as nonvictims to have experienced problems with alcohol abuse. Similar differences between CSAS and nonvictims have been reported with drug abuse (Peters, 1988; Pribor & Dinwiddie, 1992).

Adult survivors of childhood sexual abuse have also been found to experience suicidal ideation and attempts at self-harm at higher rates than women without a history of sexual abuse. Jackson, Calhoun, Amick, Maddever, and Habif (1990) found CSAS to be more likely than nonvictims to display suicidal behavior. In a community sample, Saunders et al. (1992) found that over 30% of CSAS reported a history of suicidal ideation as compared to 20% of nonvictims. It has also been found that adult survivors

are nearly twice as likely as nonvictims to attempt suicide (Briere & Zaidi, 1989). Similar results are reported elsewhere (for reviews, see Beitchman et al., 1992; Briere & Runtz, 1993; Polusny & Follette, 1995).

Sexual abuse has also been found to have long-term effects on interpersonal relationships. Harter, Alexander, and Neimeyer (1988) report that survivors often experience feelings of social isolation in adulthood. Similar affective responses of social isolation and alienation were reported by 73% of the CSAS in Courtois' (1979) community sample. In studies using college populations, when compared to nonvictims, abuse survivors tended to report more difficulties with social adjustment (Jackson et al., 1990).

There is also evidence suggesting that women with a history of sexual abuse are vulnerable to revictimization later in life. Research indicates that revictimization occurs in the form of nonconsensual sexual activities (Messman, Long, & Porter, 1996; Fromuth, 1986) and physical abuse (Messman, Long, & Porter, 1997; Russell, 1986). Wyatt, Guthrie, and Notgrass (1992) found that 56% of CSAS, compared to 21% of nonvictims, reported sexual revictimization in adulthood.

Sexual difficulties have also been reported as long-term effects of childhood sexual abuse. Becker, Skinner, Abel, and Cichon (1986) found 58.6% of abuse survivors reported sexual dysfunction and 71% of these individuals related the dysfunction to their childhood abuse experience. Hunter (1991) found adult survivors reported significantly more sexual dysfunction than nonvictims. Jackson et al. (1990) found that 65% of abused women experienced problems with sexual desire, inhibited excitement and orgasm,

dyspareunia, and vaginismus. Although Jackson et al. do not report comparison data, Saunders et al. (1992) found that current and past sexual disorders were more prevalent in adult survivors than women without a history of abuse.

Overall it appears that CSAS experience a wide array of long-term adjustment difficulties. Women sexually abused as children experience more problems with depression, anxiety, suicidal behavior and ideation, interpersonal relationships, sexual dysfunction, and revictimization compared to nonvictims. In addition, evidence suggests that survivors may also experience difficulties in other realms, such as social functioning and parenting (for review, see Polusny & Follette, 1995).

Theoretical Models of Abuse Effects

As just noted, childhood sexual abuse is associated with both immediate and long-term adjustment difficulties. Many researchers have proposed to explain, from a specific theoretical perspective, how sexual abuse and other traumatic events may affect survivors' adjustment. Such perspectives include, but are not limited to, the cognitive adaptation model, a social learning/behavioral model, the 'Traumagenic Dynamics' model and models considering attributional variables and the experience of certain life events.

Cognitive Model.

One example of a cognitive perspective is Taylor's (1983) theory of cognitive adaptation to threatening events. This theory holds that the effects of abuse are subject to an individual's successful search for meaning for the traumatic event. A successful search for meaning results in regaining a sense of mastery over the event and the environment in general and in an enhancement of self-esteem. Taylor's theory is supported by Drauker

(1989) who found that the survivors of sexual abuse who were able to gain a sense of mastery over the event and environment experienced decreased amounts of depression.

Also from a cognitive perspective, Janoff-Bulman and Frieze (1983) suggest that other adjustment difficulties can occur on a cognitive level. They propose that individuals have three basic assumptions about the environment. These assumptions include a belief in personal invulnerability, a perception of the world as meaningful and predictable, and a positive self-concept. The position of this theory is that the abuse experience can destroy these assumptions and leave the victim with difficulties developing trust and intimacy in relationships, lower self-esteem and self-efficacy, feelings of betrayal, and a sense of powerlessness in the environment.

Social Learning Model.

It has also been suggested that post-abuse adjustment difficulties occur by way of "maladaptive social behaviors, beliefs, and attitudes that abuse survivors learn from the abuse experience and the adaptive beliefs, behaviors, and attitudes they fail to learn" (Berliner & Wheeler, 1987, p.420). According to the social learning model, much of what a child learns from victimization is mediated through social learning processes. Through the perpetrator's modeling, instruction, reinforcement, and punishment, childhood survivors learn a repertoire of sexual behaviors and experiences prior to developing the necessary cognitive, emotional, and social capabilities to regulate their own sexuality. Thus, the premature exposure to distorted sexualization can lead to disinhibition of the child's expression of sexual behaviors, which, in turn, can lead to additional revictimization, victimization of other children, and long-term sexual dysfunction (for

review see Berliner & Wheeler, 1987).

Social learning models also consider elements of a classical conditioning paradigm when explaining the effects of childhood sexual abuse. Whereas sexual abuse typically is perceived negatively by most CSAS, the physical stimulation occurring during abuse can be pleasurable for some CSAS. Similarly, many CSAS are told by the perpetrator that they are special, cared for, and loved in the context of abuse. In effect, through classical conditioning the abusive situation becomes associated with positive factors (including physical and emotional closeness) (Tsai, Feldman-Summers, & Edgar, 1979). The victim therefore comes to view abusive situations as an avenue by which to gain acceptance, develop intimacy, and experience a sexual release.

By the same token, the behavioral perspective holds that an abuse experience can also lead to sexual and relationship difficulties. Survivors often experience negative emotions such as fear, anxiety, shame, and anger in the context of abuse. It is proposed that these negative emotions become classically associated with close, personal relationships (e.g., the relationship with the perpetrating father). Furthermore, it is theorized that these negative responses can become generalized to sexual encounters and intimate relationships later in life.

'Traumagenic Dynamics' Model.

Another explanation for sexual abuse symptomatology is the model of traumagenic dynamics (Finkelhor & Browne, 1988). Finkelhor and Browne propose that sexual abuse can manipulate a child's cognitive and affective perceptions of the environment. The altered orientation leads to dysfunctions related to four disturbances: traumatic

sexualization, stigmatization, betrayal, and powerlessness. Traumatic sexualization is "the process by which a child's sexuality is shaped in developmentally inappropriate and interpersonally dysfunctional ways" (p.277). Betrayal refers to the "dynamic in which children discover that someone on whom they were vitally dependent has caused them harm" (p.278). Powerlessness or disempowerment is "the process in which the child's will, desires, and sense of efficacy are continually contravened" (p. 278). Stigmatization refers to "the negative connotations, (e.g., badness, shame and guilt) that are communicated to the child around experiences of molestation that then become incorporated into the child's self-image" (p.279).

Finkelhor and Browne (1988) propose that disturbances among the four dynamics can lead to adjustment difficulties later in life. For example, traumatic sexualization may lead to anxiety and self-esteem difficulties associated with sexuality as well as a vulnerability for at-risk behaviors such as promiscuity. Stigmatization may play a role in the development of "guilt, poor self-esteem, and social isolation" (p.280). Betrayal may be related to depression, anxiety, and dependency. Finally, powerlessness may lead to a damaged sense of self and anxiety.

Attributional Style and Life Events.

Two other theories, considering the variables of attributional style and life events, are also pertinent to understanding adjustment in adult survivors of childhood sexual abuse. Given the focus of the present study, the remaining sections of this paper focus on the role of these factors and how they relate to childhood sexual abuse. Theoretical underpinnings of each and the association of each factor with adjustment issues are

described below.

Life Events

Throughout the course of development, individuals exist in a constant exchange with events in the environment. Some of these events may be perceived as relatively positive experiences, such as getting a substantial raise, obtaining an important job, or establishing a significant romantic relationship. Other events may be looked upon as relatively negative in nature. Events such as natural disasters, divorce, and death of a family member or friend represent only a handful of events commonly reported as stressful experiences. It is generally thought that isolated negative events can be considered as stressful life events and play a role in determining adjustment. Furthermore, the cumulative effect of individual events are thought to play an important role in an individual's functioning.

It has been shown that the distinction made between positive and negative life events is an important one. It is the presence of negative life events, rather than positive life events that is most strongly associated with adjustment difficulties (Johnson & McCutcheon, 1980). Indeed, research on the role of life events in general suggests that a relationship exists between stressful events and psychological, behavioral, and somatic problems in children, adolescents, and adults (Compas, 1987).

A review of the theoretical framework from which most life events research is conducted suggests that the role of stress is of key importance. Theoretical perspectives therefore differ not in the emphasis placed on the role of stress, rather, in the method of operationally defining what experiences will be stressful and how these events will affect

adjustment. Structural distinctions also exist among perspectives in regards to assessing cumulative life events, isolated events, and daily hassles. In addition, theories place different emphasis on the individual and various mediating and moderating relationships associated with life events. Three theories are discussed below (stimulus-oriented, response-oriented, and transactional-stress models) as they pertain to the study of life events as stressful experiences.

Stimulus-oriented theories postulate that there exists a wide array of identifiable stimuli or situations that inevitably result in stress, and that the greater number of these situations that are experienced, the higher the level of associated stress. A basic tenant is that all major life changes are stressful due to the adjustment they require. Thus, a reasonable index of stress is considered to be the number of life events experienced within a given time period.

Although the stimulus-oriented approach takes into account the importance of exposure in the event and stress relationship, it is thought that the scope of this perspective is quite limited (Johnson, 1986). Stimulus-oriented theories generally fail to consider individual differences in the perception of potential stressors. Specifically, what is viewed as stressful may vary across individuals.

Whereas the stimulus-oriented perspective tends to focus on the degree of exposure to stressful stimuli and situations, other perspectives have concentrated on the individual's biological and psychological responses to potential stressors. Based on Selye's (1936) animal model of adaptation to stress, response-oriented theories suggest that stress is experienced in response to an event or set of events that require individuals to adapt.

Adapting to continued stress may eventually reduce an individual's ability to cope with new or additional levels of stressors (Johnson, 1986). Seyle (1982) referred to this continued exposure as depleting an organism's adaptational energy. Thus, response-oriented theories view a stressful event or events as those that deplete an individual's personal resources and ability to meet excessive demands. Johnson (1986) suggests that rather than indexing stress by the degree of exposure to noxious or threatening stimuli, the response-oriented approach argues that stress is most accurately assessed by considering the individual's response to aspects of the environment that are presumably stressful.

Although response-oriented theories consider the importance of individual responses, this approach has been criticized for its ambiguity (Johnson, 1986). This perspective fundamentally assumes that stress responses are qualitatively similar across individuals. According to response-oriented theories, failure to find a stressful response in a given individual is presumed to be an indicator that the stimuli or situations were not stressful. This risks overlooking the possibility that the individual's stress response is simply not congruent with what is assumed to be a sign of stress.

Finally, the transactional stress model of Lazarus and Folkman (1985) defines the stressful experience as a transaction between the person and environment. A key distinction for this perspective is that specific events, or a cumulative set of events, may not be experienced as stressors across all individuals. This view contends that the stressfulness of life events depends on various aspects of the individual's perception of the event or set of events. Furthermore, it is argued that the impact of potentially stressful events on the individual relies on resources available to the individual for dealing with the

event or set of events. For example, defining factors may be whether an event is perceived as threatening or nonthreatening, desirable or undesirable, controllable or uncontrollable, and so on.

Lazarus and Folkman (1985, p.19) submit the following definition: "Psychological stress is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being." They argue that indexing stress simply in terms of the number of presumably stressful events or in terms of the individual's response to potential stressors is inadequate. Presumed stressors may or may not be experienced as stressors for any given individual and all individuals may not display similar adverse reactions to stress. Rather, stress is said to result from events or situations that are perceived by the individual as threatening or demanding to the point of exceeding the individual's ability to cope.

Fundamental to the transactional-stress model is the concept of cognitive appraisal; the process by which an individual evaluates encounters that are potentially stressful in terms of the event's significance for personal well-being (Lazarus & Folkman, 1985). Lazarus and Folkman identify two types of appraisals relevant to the person and environment transaction. These are referred to as primary and secondary appraisals.

Primary appraisal refers to an individual's perspective of a given event or situation in terms of its threat value. This appraisal can be one of three types. The event can be appraised as irrelevant, having neither positive nor negative implications for the individual. Events may also be appraised as benign-positive, tending to lead to a desirable outcome. Events may also be appraised as stressful.

Stress appraisals may take several forms (Lazarus & Folkman, 1985). Harm or loss appraisals refer to an event that is perceived as having already resulted in significant harm or loss. Threat appraisals refer to events that may be perceived as resulting in harm or loss at some point in the future. Finally, challenge appraisals describe events that might be appraised as risking potential for gain or development.

Whereas primary appraisals refer more to what is at stake, Lazarus and Folkman (1985) contend that secondary appraisals move more toward the idea of what can be accomplished in a given situation. Secondary appraisals take into account available coping resources, the relative efficacy of a given coping option, and the probability of applying the coping strategy effectively. Lazarus and Folkman (1985) suggest that a sufficiently comprehensive index of stress involves not only the degree of exposure an individual has to potential stressors but also the person's appraisals of the potentially stressful event. The major strength of this perspective is that it takes into account the role of different types of appraisals as well as other potential mediators in the relationship between life events and adjustment.

Clearly, theoretical perspectives differ with regard to the mechanisms with which life events are perceived and identified as stressful. Lazarus and Folkman's (1985) transactional-stress model has been presented here as a well-accepted means of examining mechanisms of stress and coping due to its multidimensional use of cognitive appraisal and consideration of transactions between individuals and the environment (Compas, 1987; Johnson, 1986).

The Relationship Between Life Events and Adjustment

Given that the processes by which individuals may experience events as stressful or negative have been outlined, an overview of difficulties that may occur in the wake of such events is pertinent. Life events have been tied to various psychological difficulties. Frazier and Schauben (1994) asked a sample of college students to report the total number of stressful life events experienced within the past six months as well as the stressfulness of each event. They found that the total number of events and stressfulness associated with the events independently predicted adjustment. Specifically, students who reported more negative life events and more levels of stress associated with events experienced more difficulties with depression, anxiety, somatization, hostility, paranoid ideation, and interpersonal sensitivity.

Difficulties with somatization have also been reported by Dalgaard, Bjork, and Tambs (1995). In this study a community sample of adults was reinterviewed ten years after an initial investigation of social support, negative life events, and mental health. Out of an initial list of 30 possible events, the ten events rated most burdensome were used as an index of stressful events. It was found that participants who experienced increases in stressful life events reported more somatic complaints than individuals with fewer stressful events.

Life events have also been associated with anxiety. Ray, Jefferies, and Weir (1995) examined adults diagnosed with chronic fatigue syndrome. Participants were interviewed for levels of fatigue, impairment, anxiety, and depression and reinterviewed one year later with an additional interview for life events. The index of stressful life events included the number of negative events individuals experienced in the last year. Ray et al.

found negative events predicted increases in anxiety at follow-up even when anxiety at initial assessment was controlled, and also when this analysis was restricted to events independent of chronic fatigue symptoms. Life stress was not significantly related to fatigue, impairment, or depression.

Life events have also been related to severe physical problems. Ogden, Mee, and Henning (1993) examined life events in the year preceding hospitalization in stroke patients. Individuals who had suffered a subarachnoid hemorrhage were compared to a control group of orthopedic and spinal patients on an index of life stress. Participants were administered a self-report instrument asking subjects to indicate the number of stressful events that occurred in the past year. Findings indicated that patients with subarachnoid hemorrhage reported more stressful life events in the past year as compared to orthopedic and spinal patients.

There is also evidence which suggests that negative life events are reasonable prognostic indicators. Monroe, Roberts, Kupfer, and Frank (1996) examined adult outpatients diagnosed with recurrent depression. Participants were administered a semi-structured interview and asked to indicate the number of events out of a possible 110 that occurred in the last 12 weeks. Life stress was assessed for the 12 weeks prior to treatment and initial recovery, and after 17 weeks of sustained recovery. They found that life events predicted greater attrition from treatment, recurrence of depression, and more severe symptom courses. It was also found that patients with negative life events experienced longer recovery periods than those who failed to report the presence of negative life events. Johnson and Miller (1997) examined the role of negative life events

in an outpatient sample of adults diagnosed with bipolar disorder. Assessments for symptom severity and negative life events were taken three times over the course of one year. They found that patients with negative life events experienced longer recovery periods than those who failed to report the presence of negative life events.

Evidence also demonstrates that the occurrence of negative life events plays a role in the development of depression. Romanoski et al. (1992) conducted an epidemiological study of depressive disorders in a clinic sample of adults. Participants in this study were administered semi-structured interviews assessing life events and depression. It was found that individuals who reported more negative life events in the past year experienced more problems with depressive symptoms and disorders than individuals with fewer negative life events. Negative life events in the past year have also been found to predict increases in depression among older adults (Nacoste and Wise, 1991). When compared to their adult children and young adult grandchildren, only for grandparents did the presence of negative life events independently influence levels of depression. Blanchet and Frommer (1986) administered self-report instruments for depression and life events to a sample of adults diagnosed with epilepsy. Medical records and a daily log were also used to track seizure activity. Results suggested that patients who reported increases in life events over the course of a three-month period predicted higher rates of depressed mood as compared to those with fewer life events. Hermann and Whitman (1989) also examined life events in epileptic patients and found that individuals with more negative life events in the past year experienced more problems with depression than those who failed to report the presence of negative life events.

Although evidence demonstrates that negative life events can have an independent role in predicting psychological and physical difficulties, one study suggests that cumulative life events interact with significant life stress to predict adjustment. Landerman, George, and Blazer (1991) suggest that negative life events interact with childhood experiences to predict poorer mental health. Interviews were conducted with a sample of community adults. Psychiatric symptoms of depression, somatization, panic, obsessive-compulsiveness, and mania served as indicators of overall mental health. In addition, alcohol abuse and dependence was assessed. A total of 20 possible negative life events occurring in the past year were assessed. The total number of events reported as having a significant impact served as the measure of life stress. Landerman et al. found that parental mental illness during childhood is associated with higher rates of depression when individuals experience stressful life events in adulthood. Findings also suggest that a history of parental divorce or separation during childhood, paired with recent life stress facilitates poorer overall mental health and alcohol abuse and dependence during adulthood.

Although Landerman et al. (1991) contribute to the life events literature, some limitations in their study warrant attention. A relatively small number of life events were assessed, making it possible that the contribution of other events were overlooked. In addition, it is not clear precisely how an event was rated as having a negative impact before it was included into the index of life stress.

Current evidence suggests that life events are related to a wide array of adjustment difficulties. These difficulties include psychological symptoms and disorders, illness

recovery, and medical difficulties. However, some limitations of the current state of research warrant attention. Perhaps the most prominent limitation is the manner in which life events are assessed. Several factors are involved here. One factor concerns the number of life events assessed. For example, Frazier and Schauben (1994) included 20 items in their index of life stress whereas Johnson and Miller (1997) examined the role of one event. A small number of life events may overlook other possible stressors. In addition, it remains unclear whether solitary events are meaningfully different in terms of adjustment than multiple events. Another problematic factor is the inconsistency in life event indexes in the current literature. Examples of this include Ray et al. (1995) who fail to clarify what is meant by a life change unit and Blanchet and Frommer (1986) whose assessment of life events is not clearly defined. A lack of clarity in indexes of life events is also demonstrated by Romanoski et al. (1992). Other studies have employed population-specific indexes of events such as Frazier and Schauben (1994) who employed a measure of college stressors. Future research efforts would benefit by employing uniform measures of life events that can be used in various populations.

Life Events and Childhood Sexual Abuse

One factor that is thought to be related to both the occurrence of abuse and women's functioning following such victimization is the presence of major life events. Initial studies suggest that victimization may be tied to certain life events such as parental absence, familial conflict, and presence of a stepfather (Finkelhor & Baron, 1986). However, little systematic research has evaluated the range of life events that CSAS experience and has sought to compare this to nonvictims' experiences. Studies which have

been conducted on this topic do suggest that sexually abused children experience higher levels of stressful life events as compared to nonabused children.

One study, (Friedrich, et al., 1992) compared a clinic sample of 276 sexually abused children with a nonabused control group of 880 children on measures of sexual behavior and life events. Children in the clinic sample were identified as victims of sexual abuse by local child protection and social service agencies. Data were gathered by administering self-report instruments to children's mothers or primary care givers. Friedrich et al. found that the nonabused children reported fewer stressful life events than the sexually abused children. Among other events, the sexual abuse group reported more experiences of parental divorce, physical abuse, foster care, and parental battering.

Some limitations of this study warrant attention. For example, Friedrich et al. (1992) fail to identify any definition or criteria associated with sexual abuse. Thus, it is unclear as to what types of abuse were included in this study (e.g., contact vs. noncontact, intrafamilial vs. extrafamilial). The method of life events assessment is equally vague. There is no discussion of the types of events, their impact, or time period in which the events occurred.

Sansonnet-Hayden, et al., (1986) investigated abuse history in a sample of 54 adolescents recently hospitalized for a wide array of psychiatric disturbance, including problems with anxiety, depression, mania, conduct difficulties, and psychotic symptoms. Sexual abuse was defined as "involvement of dependent, developmentally immature children or adolescents in sexual activities that they do not fully comprehend, and/or to which they are unable or unwilling to give informed consent, where sexual activity

involves physical contact with breasts and/or genital areas" (Sansonnett-Hayden et al., 1986, p.754). Of the 29 females who participated in the study, 37.9% reported a history of sexual abuse, whereas 24% of the 25 males indicated having an abuse history. In addition, Sansonnet-Hayden et al. found that sexually abused adolescents experienced significantly more psychosocial stressors in the past year compared to nonabused adolescents.

However, certain limitations inhibit the scope of Sansonnet-Hayden et al.'s (1986) results. The nature of the psychosocial stressors remains unclear. The types of events, number, and impact are not discussed. Combined with a relatively small inpatient sample, it is difficult to generalize from these results.

Other evidence suggests that differences between CSAS and nonvictims' cumulative life events may continue into adulthood. In a college sample, Smith, et al., (1993), retrospectively examined life events in adult survivors of childhood sexual abuse. In this study sexual abuse was defined as "any sexual experience occurring when the child was age 12 or younger involving someone at least five years older, or any sexual experience occurring when the child was 13 to 16 years of age involving someone at least 10 years older" (Smith et al., 1993, p.4). Of the 331 women who participated in this study, 103 were identified as having been sexually abused during childhood. Smith et al. found that both extra- and intrafamilial abuse CSAS reported more cumulative stressful life events compared to nonvictims. Specifically, compared to nonvictims, CSAS more frequently reported a history of psychological and physical illness in the family, financial difficulties, personal illness, physical abuse, parental divorce and separation, and death of a

parent.

Similar differences in adults have been reported by Long and Messman (1994). A college sample of 96 women retrospectively reporting childhood sexual abuse and 95 women failing to report such a history were compared on measures of life events and adjustment. Childhood sexual abuse was defined as "any sexual experience with someone at least five years older than she before she had reached the age of 13, or with someone at least 10 years older than she when she was 13-16 years of age" (Long & Messman, 1994, p. 2,3). Results indicated that CSAS experienced more negative and fewer positive life events before the of age 18 than nonvictims.

These four studies comprise all the literature available examining the relationship between life events and childhood sexual abuse. Further, these studies have certain limitations. The reliability of abuse assessment is sometimes questionable due to the means of assessment and a lack of an operational definition of abuse. Others have failed to clearly identify time periods from which life events were assessed (e.g., Smith et al., 1993; Sansonnet-Hayden et al., 1986). Nevertheless, the current body of literature generally supports the conceptualization that childhood sexual abuse does not exist in a vacuum, as an isolated event. Rather, it appears to occur in association with other stressors of varying magnitudes.

Life Events, Adjustment, Childhood Sexual Abuse

Not only have the presence of life events been studied, but the relationship between survivors' life experiences and subsequent adjustment has also garnered some attention. In a study previously mentioned, Smith et al. (1993) found that cumulative

stress predicted poorer adjustment in terms of lower self-esteem and increases in depression in both the victim and nonvictim group. Smith et al. contend that sexual abuse and other stressful events have an additive and independent effect on long-term adjustment.

The findings from Smith et al.'s (1993) study appear to underscore the importance of considering victimization history in the context of other stressful events in predicting adjustment. However, as previously mentioned, Smith et al. assessed cumulative life events. How these events were operationalized as stressful remains unclear. It is also possible that the effects of cumulative life events may not be as pronounced as events that have occurred within the past year (i.e., a time frame frequently used in life events research).

Other evidence suggests that life events play a role in determining women's adjustment many years following sexual abuse. In a study reported on earlier, Long and Messman (1994) found that CSAS not only reported experiencing more negative life events compared to nonvictims, but that the presence of negative events predicted poorer overall adjustment in survivors of childhood sexual abuse. These results provide tentative support for the role of negative life events in survivors' adjustment.

In a previously mentioned study, Sansonnett-Hayden et al. (1986) examined differences in psychiatric symptomatology in an inpatient sample of adolescents. They found that compared to nonvictims, survivors indicated more suicide attempts in the year previous to hospitalization, were more likely to report a greater amount of depressive and schizoid/psychotic symptoms and higher rates of conduct problems. Furthermore, CSAS

reported more psychosocial stressors in the past year as compared to nonvictims. Although it is possible that life stress played a role in predicting subsequent adjustment, this relationship was not examined.

In a study on the ecology of adolescent maltreatment, Williamson, Borduin, and Howe (1991), examined differences among physically abused, sexually abused, neglected, and nonmaltreated adolescents on measures of family life events and daily stressors as well as measures of individual, family, and social functioning. Findings indicated that sexually abused adolescents and their mothers reported more psychological difficulties than did any of the other groups. Similarly, differences were found for adolescent behavior problems. Mothers of sexually abused and neglected adolescents indicated higher levels of conduct problems in their children than did the nonmaltreatment mothers. In addition, sexually and physically abused adolescents reported a greater number of family life events and daily stressors than the nonmaltreatment group. However, as was the case with Sansonnet-Hayden et al. (1986), Williamson et al. did not examine the relationship between life events and adjustment. Thus, it is possible that analysis of this relationship may have provided greater understanding of adjustment experiences in the sexual and physical abuse groups.

Unfortunately the role life events play in predicting differential psychological functioning in survivors of childhood sexual abuse remains unclear. Only two studies have examined the role of life events in predicting adjustment in sexual abuse populations (e.g., Smith et al., 1993; Long and Messman, 1994). Other researchers have found direct relationships between victimization status and adjustment, but fail to examine this

relationship in regards to life events (Sansonnet-Hayden et al., 1986; Williamson et al., 1991). Further study of life events and adjustment in survivors of sexual abuse is needed in order to clarify this relationship.

Attributional Style

Another construct that has been linked to individual adjustment is attributional style. Attributional theory suggests that individuals tend to explain the occurrence of various life events across three causal dimensions (Abramson, Seligman, & Teasdale, 1978; Peterson & Seligman, 1984). These dimensions include locus, stability, and globality. Locus is conceptualized as an internal-external dimension. It is referred to as the degree to which a person views the outcome of events as contingent on his/her self or external sources. The stability construct is a temporal component, referring to the manner in which outcomes are perceived as relatively stable or unstable. The globality dimension refers to the perception of contingencies across situations. A global perception is one in which individuals believe that outcomes will widely effect their lives whereas a specific attribution is a belief that effects of events will pertain only to the particular situations in which the event occurs. Abramson et al. (1978) suggest that when negative events, over which a lack of control is experienced, are attributed to internal, stable, and global factors, depression is a likely product.

Research on the learned helplessness model has resulted in an attributional theory related to depression. The helplessness theory of depression postulates that attributional style is a mechanism of cognitive appraisal described as the manner in which individuals explain the causes of events (Abramson et al., 1978). Fundamental to helplessness theory

is that in the presence of negative events the attributions individuals make may influence adjustment. Indeed, helplessness theory maintains that individuals who explain such events to internal, stable, and global causes are likely to experience a sense of helplessness and subsequent depression (Abramson et al., 1978; Peterson & Seligman, 1984; Peterson, Maier, & Seligman, 1993). In fact, a significant amount of research suggests that a negative attributional style is independently related to problems with depression (Brewin, 1985).

Attributional Style and Adjustment Problems

Seligman, Abramson, Semmel, and von Baeyer (1979) proposed the existence of a depressive attributional style. They postulated that attributing negative events to internal factors (e.g., the self) underlies deficits in self-esteem whereas explaining events in terms of stable and global causes lends to the expectation of outcomes as durable and generalized across situations. The combined effects of a loss of self-esteem and expectancies of relatively permanent and widespread results were thought to lead to helplessness and subsequent depression. In order to test this relationship, a college sample was administered measures of attributional style and depression. Results indicated that individuals who made internal, stable, and global attributions for negative events experienced more depression as compared to participants without the negative attributional style.

Additional support for a depressive attributional style has been demonstrated by Nolen-Hoeksema, Girgus, and Seligman (1986). They examined the relationship between attributional style and depression in a sample of elementary school children. Measures of

depression, attributional style, and life events were taken five times over the course of a year. The life events checklist instructed participants to check those events which occurred in the past two months. Nolen-Hoeksema et al. found that in three out of the five assessments, children with an internal, stable, and global attributional style experienced more depression than children without the maladaptive explanatory style, regardless of life events. This relationship remained even after the influence of depression and attributional style at earlier testings were taken into account.

Seligman, et al. (1984) examined the relationship between attributional style and depression in a sample of elementary school children. Subjects were administered measures of depression and attributional style at the initial testing and a six-month follow-up. Seligman et al. found that internal, stable, and global attributions for negative events predicted depression at the initial interview. Subsequent analyses revealed that depression scores at follow-up were also predicted by negative attributional style, ruling out the influence of baseline depression.

Sweeney, Anderson, and Bailey (1986) conducted a meta-analytic review of attributional style in depression. Their investigation incorporated 104 studies. These studies included various adult populations (e.g., college student, inpatient, community) and depression measures. In addition, studies were included if an index of attributional style included measures of hypothetical or imagined events, real life events, or attributions made toward outcomes on laboratory tasks. Sweeney et al. found that for negative events, attributions to internal, stable, and global factors were consistently predictive of depressive symptoms. Furthermore, external, unstable, and specific attributions for

positive events emerged as a somewhat weaker predictor of depression.

Parry and Brewin (1988) investigated attributional style in a sample of working mothers. Participants completed measures of depression, life events, and attributional style. However, unlike other measures of attributional style, Parry and Brewin assessed only for the internal dimension (i.e., attributions to character or behavior of self). Results indicated that internal attributions were associated with higher levels of depression. The number of stressful life events in the last year was also related to depression but did not interact with attributional style.

The depressive attributional style has also been demonstrated in comparison with event-specific attributions. Cutrona, Russell, and Jones (1984) compared attributional style for hypothetical events and causal attributions for specific real life events in predicting depression. A college sample completed measures of depression and attributions, both for hypothetical negative events and specific real-life events. A relationship between attributional style for hypothetical negative events and specific real-life events was not supported. However, a relationship between negative attributional style for hypothetical events and depression did emerge. Specifically, participants with internal, stable, and global attributions for negative events reported more depression than participants without the depressive attributional style. However, data for the relationship between specific life events and depression were not reported.

Norman and Antaki (1986) looked at the relationship between attributional style and depression. A sample of undergraduates was asked to identify two negative social events and subsequent attributions regarding the event. Findings revealed that participants

who explained events as due to internal, stable, and global factors experienced more depression as compared to students who failed to report the maladaptive attributional style.

Maladaptive attributions have also been tied to depression-related factors. In the above study, Norman and Antaki (1986) found that maladaptive explanatory style predicted lower levels of achievement and more helpless behaviors in the classroom. Power (1987) compared a sample of depressed inpatients with a control group of medical patients. Participants were administered measures of depression, attributional style for hypothetical negative events, as well as attributions for real life past and future events. Findings revealed that depressed patients more often reported internal, stable, and global attributions for negative events as compared to nondepressed patients. In addition, attributional style for hypothetical negative events emerged as a stronger predictor of depression than attributions for past and future events.

Kinderman and Bentall (1997) examined internal, personal, and situational attributions for negative events and their relationship with paranoia and depression. A sample of depressed patients and a nondepressed control group were administered measures of attributional style and paranoia. Findings revealed that depressed patients made more internal causal attributions for negative events than paranoid patients and nonpatient controls.

Others have found specific attributional dimensions to play a role in predicting depression and related factors. Pecuch (1998) examined depression, self-esteem, and attributional style in a college sample. Results indicated that students with more stable

and global attributions for negative events reported more depressive symptoms compared to students with alternative attributional styles.

Hull and Kemp-Wheeler (1986) investigated attributional style in a college sample. Participants were administered measures of extraversion and neuroticism, depression, stressful life events in the past six months, and a measure of attributions for those life events. They found that individuals who made internal and stable attributions for the stressful events scored higher on the measure of neuroticism than subjects who made other attributions. Although the number of stressful life events was related to depression scores, they failed to independently predict neuroticism. In addition, life events and attributional style failed to jointly predict either depression or neuroticism.

Coping processes represent another depression-related factor that has been tied to attributional style. Joseph and Kuyken (1993) examined attributions and inhibitory processing in a sample of university undergraduates and staff members. Inhibitory processes were analyzed as a style of coping defined as self-controlling behavior; a means of coping characterized by efforts to regulate one's emotional state and behavior. It is important to note here that this perspective was adopted from Folkman, Lazarus, Dunkel-Schetter, DeLongis, and Gruen's (1986) finding that self-controlling behavior is often used in situations that threaten self-esteem. Participants in Joseph and Kuyken's (1993) study were administered self-report instruments of depression, coping, and attributions for a single stressful event that had occurred in the past two months. They found that individuals with internal, stable, and global attributions for the negative event engaged in more self-controlling behaviors than individuals with external, specific, and unstable

attributions. This relationship remained even after the influence of depression was taken into account.

Evidence demonstrates a direct relationship between negative attributional style and depression. To a lesser extent studies also suggest that attributional style is related to achievement, coping, and depression-related symptoms. However, some limitations inhibit further understanding of the role of attributional style in predicting adjustment. Namely, there is a lack of uniform measures of attributional style. For example, Sweeney et al. (1986) included studies that incorporated various measures of attributional style in their meta-analytic review. Event-specific attributions have been employed in some tests of attributional style, (e.g., Joseph & Kuyken, 1993; Norman & Antaki, 1988). In addition, indexes of attributional style have been inferred from uni-dimensional tests (e.g., Parry & Brewin, 1988; Kinderman & Bentall, 1997). Such limitations in the existing literature inhibit the extent to which attributional style is appropriately examined and generalized to various settings.

Attributional Style and Childhood Sexual Abuse

Attributional style has been demonstrated to predict depression in child, adolescent, and adult populations. Moreover, this relationship is quite consistent across psychiatric, nonpyschiatric, and medical populations. Literature regarding group differences in attributional style as well as the role of attributional style and subsequent adjustment in survivors of childhood sexual abuse is scant. However, a small number of studies have been conducted with abuse populations.

Mannarino and Cohen (1996) investigated attributional style and adjustment in a

sample of 165 girls, age 7 to 12 years, 77 of whom had a history of sexual abuse. Participants were administered measures of abuse-related attributions, general attributional style, locus of control, and adjustment. Sexual abuse was defined as "sexual contact of an exploitive nature" and included stipulations for differences in age, size, and nature of relationship to perpetrator. Results revealed that CSAS demonstrated more negative attributional styles compared to nonvictims. Results also indicated that for CSAS, those who made more personal abuse-related attributions reported more depressive symptoms and anxiety compared to other survivors.

The role of attributional style in predicting adjustment has also been examined exclusively in CSAS. Feiring, Taska, and Lewis (1998) examined the role of shame and attributional style in predicting depressive symptoms in a sample of 8-15 year-olds. Sexual abuse was defined as "contact by coercion with a juvenile or adult perpetrator who was a family member, relative, familiar person, or stranger." Results revealed that older children reported more symptomatology compared to younger children. Results also indicated that for males and females, the relationship between the frequency of abuse and depression was mediated by shame and a negative attributional style and that greater overall distress was directly predicted by a negative attributional style.

Hazzard et al., (1995) examined predictors of adjustment and self-blame in a sample of sexually abused children. Participants were administered measures of attributional style, self-blame, and trauma-related psychological symptoms. Sexual abuse was defined as "sexual contact that was perceived by the child as coerced or a 5 year age difference between the child and the perpetrator" (p. 108). Results indicated that children

who attributed negative events to internal, stable, and global factors were more likely to utilize self-blame as a coping mechanism than CSAS who did not self blame.

Additional evidence from child samples is demonstrated by Wolfe, Gentile, and Wolfe (1989). Sexual abuse was defined as "any sexual experience between a child (16 years and younger) and someone at least five years older." Results revealed that CSAS who exhibited depressive symptoms and sexual fears, were more likely to report internal, stable, and global attributions for negative events and for the abuse experience as compared to CSAS without the maladaptive attributional style.

Attributional style has also been examined in adult survivors (Gold et al., 1994). Participants were women who retrospectively reported a history of childhood sexual abuse, adult sexual assault, both, or no history of child or adult abuse. Childhood sexual abuse was defined as "sexual activity with someone five years older before the age of 15 that involved physical contact." Measures of attributional style, parental support, and psychological symptoms were taken. Findings indicated that CSAS who made internal and global attributions for negative events experienced more problems with depression than other CSAS. In addition, CSAS who made global attributions for negative events reported more anxiety and dissociative symptoms. The global dimension was also found to interact with low parental support to predict poorer overall adjustment in women sexually abused as children.

Wenninger and Ehlers (1998) also found differences between CSAS and nonvictims on measures of attributional style. A sample of 43 American women and 35 German women were assessed for attributional style and posttraumatic symptoms.

Results indicated that in the American women, CSAS reported more internal, stable, and global attributions for negative events compared to nonvictims. Evidence was also found in both groups that only global attributions for negative events predicted distress in CSAS.

Only one other study has examined attributional style and adjustment in adult survivors of childhood sexual abuse. Gold (1986) administered measures of locus of control, attributional style, depression, psychological distress, and self-esteem to a sample of college women. Childhood sexual abuse was retrospectively examined and defined as "(a) sexual contact (i.e., physical touch) between a child (12 years old and under) and a postpubertal person at least 5 years older than the child; (b) sexual contact between an adolescent (13 to 16 years old) and an adult at least 10 years older; (c) sexual contact between any child or adolescent under 16 years old and a person or persons who used physical force" (p.472). Results revealed that the strongest predictor of women's adjustment was attributional style. Gold reported that women with histories of childhood sexual abuse who tended to make internal, stable, and global attributions for negative events were more likely to report psychological distress and low self-esteem as compared to survivors who failed to exhibit the maladaptive attributional style. Gold also found that survivors as compared to nonvictims were more likely to attribute negative events to internal, stable, and global factors.

There is currently a small amount of literature examining the attributional style in women with a history of sexual abuse. Moreover, the current body of literature contains certain limitations that are noteworthy. Operational definitions of child sexual abuse are inconsistent. Different definitions of abuse were given in each of the studies presented

here. Furthermore, the majority of these definitions are vague and in need of clarification (e.g., Hazzard et al., 1995; Wolfe et al., 1989; Gold et al., 1994). In addition, a number of studies used child samples (Feiring, et al., 1998; Hazzard et al., 1995); Mannarino & Cohen, 1996; Wolfe et al., 1989). Although these data are necessary to understanding difficulties early on, they are limited in their implications for long-term adjustment.

The Moderating Role of Life Events and Attributional Style in Predicting Adjustment

Although the basic tenants of helplessness theory have remained largely unchanged since it formulation, an alternative conceptualization offers further framework for attributional style as it pertains to a diathesis-stress model of depression. A discussion of the refined theory and the relationship of this model to depression is presented below.

Alloy et al. (1988) have termed the current conceptualization of attributional style's relationship to depression as hopelessness theory. Although the premises of helplessness theory remain unchanged, Alloy et al. offer additional perspective on concepts of attributional theory as well as an outline of the proposed temporal sequence of the diathesis-stress model.

Alloy et al. (1988) contend that a more accurate representation of attributional style's relationship to depression requires an understanding of aetiological causes of hopelessness and subsequent depressive symptoms. Necessary causes are considered the essential aetiological factors that must be present in order for depression to be a possibility. These causes differ from sufficient causes, which refer to the aetiological features that, once present, assure the onset of depression. A third type of cause described

by Alloy et al. is contributory in nature. Contributory causes are considered neither necessary nor sufficient for depressive onset, but are aetiological factors that once present, increase the likelihood of depressive reaction.

Alloy et al. (1988) also suggest that causes can be distinguished according to their sequential relationships to the onset of depression. Alloy et al. make a distinction between proximal and distal causes. Distal causes are said to function early on in the development of depression. At the point where distal causes operate there is little or no sign of depression. On the other hand, proximal causes operate late in the aetiological sequence and may occur immediately before the onset of depression or concurrently. The trademark of hopelessness theory is that it specifies a chain of proximal and distal contributory causes that are thought to culminate in a proximal sufficient cause of depression.

Given Alloy et al.'s (1988) position, the role of hopelessness theory has been referred to as a diathesis-stress model of depression (Metalsky, Abramson, Seligman, Semmel, & Peterson, 1982; Peterson & Seligman, 1984; Stiensmeier-Pelster, 1989). Negative attributional style is thought to be a distal variable that when activated by proximal events lends to the development of hopelessness and subsequent depression. Thus, causal attributions are regarded as the diathesis component and the occurrence of negative life events, over which there is low perceived control or the contingencies are ambiguous, is considered the stress component.

Alloy et al. (1988) contend that the development of hopelessness and depression is a chain of responses. The sequence of the chain response is purported to be that

individuals possess a particular disposition for interpreting environmental events. As mentioned earlier, the disposition for the depressive individual is to attribute negative events to internal, stable, and global causes. Given the diathetic properties, the chain is said to begin with the occurrence of negative life events. The next sequence is the internal, stable, and global attributions that lead to an expectation of hopelessness/helplessness which in turn leads to depressive symptoms (Alloy et al., 1988). In addition, Alloy et al. (1988) caution that other contributory agents may exist that perpetuate the maintenance of depression (e.g., biological factors, other psychosocial factors). Others also note that internal, stable, and global attributions do not account for depression in the presence of positive life events or absence of negative life events, nor do external, unstable, and specific attributions made toward any event (Metalsky et al., 1982; Peterson & Seligman, 1984).

Alloy et al. (1989) further report that the stability of attributions plays an integral role in the maintenance of depression. Peterson and Seligman (1984) offer clarification on this point by asserting that attributions for a specific event may be consequentially distinct from attributional style. They suggest that an attributional or explanatory style refers to individuals whose causal explanations show low variability across time and situations. It is a dispositional characteristic to attribute stressful events to internal, stable, and global causes, which influence a generalized expectancy. It is the expectancy that completes the responses sufficient for depression to develop in the face of negative events (Abramson et al., 1978; Seligman et al., 1979). Indeed, Peterson and Raps (1983) found that studies supporting the helplessness/hopelessness model were more likely than nonsupporting

studies to take into account the role of life events that activate the negative attributional style. These findings appear to logically fit with a diathesis-stress model of depression.

It should be noted that others have argued that the predictions of hopelessness theory do not conform to the diathesis-stress model (Tiggeman, Winefield, Winefield, & Goldney, 1991). However, this position is thought to overlook the diathesis-stress conceptualization of activation; that a negative attributional style may remain idle until properly activated. Beck (1967) initially argued that maladaptive cognitions typically exist in a dormant state until activated by relevant stressors. Thus, in the absence of negative or stressful events, the diathesis would not be readily available. This theoretical assertion has received support elsewhere in the attributional literature (Alloy, 1997; Alloy et al., 1999; Chaney et al., 1996; Metalsky & Joiner, 1992).

Some empirical evidence suggests that life events and negative attributional style do jointly predict depression. Alloy et al. (1997) demonstrated the hopelessness model of depression in a sample of 108 nondepressed adults. Participants were initially assessed for attributional style and depression and instructed to maintain a life events diary for 28 days. Alloy et al. found that participants who initially reported an internal, stable, and global attributional style for negative events exhibited higher levels of depressive symptoms as compared to those who failed to report a negative attributional style. In addition, increases in depressive symptoms were further predicted for individuals with a negative attributional style by the presence of negative events during the 28 day period.

Alloy et al. (1999) also examined the interaction of attributional style and life events in predicting mood dysfunction in a sample of 43 undergraduates with subthreshold

mood symptoms, including cyclothymic, dysthymic, and hypomanic symptoms. Results revealed that among individuals with depressive symptoms, ongoing negative life events interacted with a negative attributional style to predict an increase in symptoms. Results also indicated that to a lesser extent the diathesis-stress model was associated with an increase in hypomanic symptoms.

The diathesis-stress model has also been investigated cross-culturally (Sakamoto & Kambara, 1998). In a longitudinal study, Sakamoto and Kambara examined attributional style, life events, and depressive symptoms three times over a seven month period in a sample of 143 Japanese undergraduates. At each testing session, negative life events for the last three months were assessed. The results generally supported the hopelessness model of depression. Trends were found for the interaction of a negative attributional style and negative life events in predicting depressive symptoms. Although unrelated to the hopelessness model of depression, evidence was also found that fewer depressive symptoms were predicted by the interaction between a positive attributional style and positive life events.

Stiensmeier-Pelster (1989) reported on the relationship between attributional style and depressive mood reactions in two studies. The first investigation was a field study. A college sample was administered measures of attributional style and affect approximately three weeks before Christmas vacation. Participants were provided with the same self-report measure of affect and asked to complete it the day after Christmas. In addition, participants were asked to rate the degree to which their Christmas vacation was a positive or negative experience. Results supported the hopelessness model. Participants

with an internal, stable, and global attributional style experienced increases in depression when Christmas vacation was rated as a negative experience. Findings also indicated that the same attributional style led to decreases in depressed mood when Christmas vacation was rated as a positive experience. It is also important to note that attributional style and depression were not related prior to Christmas vacation. These findings suggest that individuals whose typical explanatory style for negative events consists of internal, stable, and global attributions are more likely to report problems with depressed mood after the occurrence of a negative event.

Further support for the diathesis-stress model was obtained from the Stiensmeier-Pelster's (1989) second investigation in a laboratory setting. A sample of 46 female undergraduates was administered tasks from the Raven Progressive Matrices (Raven, 1974) in a success or failure condition. Mood and attributional style were assessed before and after each condition. Stiensmeier-Pelster (1989) found that subjects in the failure group who reported more internal, stable, and global attributions experienced deterioration in mood. In addition, participants in either experimental condition with more external, unstable, and specific attributions reported no significant change in mood. The same result was seen in participants with internal, stable, and global attributions from the success group.

Although Stiensmeier-Pelster's (1989) findings are supportive of a cognitive diathesis, the studies are not without their limitations. The first study contained a relatively small number of participants who rated Christmas vacation as a negative experience (i.e., 11). A larger sample size may have produced more robust findings.

Furthermore, mood ratings at time 2 were taken at the same time that subjects rated Christmas vacation. It is possible that some participants deteriorated in mood from time 1 to the beginning of vacation. Finally, attributions in the second study were made following the success or failure condition. It is possible that this condition influenced mood and attributions.

Rothwell and Williams (1983) offer tentative support for the role of attributional style in a cognitive diathesis. A sample of 20 males, recently unemployed, were administered measures of depression, self-esteem, and attributional style. The role of recent unemployment was used as an intervening negative life event. It was found that internal attributions interacted with unemployment to predict problems with depression and low self-esteem. However, the globality and stability dimensions were not found to be related to depression and self-esteem.

A major limitation of Rothwell and Williams' study warrants attention. They examined a very small sample size (i.e., 20). A larger sample size may have enabled a better test of the attributional dimensions, possibly allowing the globality and stability dimensions to emerge as significant predictors. In addition, the life stress variable, job loss, occurred six months prior to assessment. It is possible that other variables (e.g., social support) not examined may have buffered against the effects of the attributional style and life events interaction.

Additional evidence demonstrates the role of attributional style in a diathesis-stress model. In a previously mentioned study, Nolen-Hoeksema et al. (1986) found maladaptive attributional style and negative life events jointly predicted depression two out

of five times. Children with internal, stable, and global attributions who also reported more negative events tended to experience higher levels of future depression. These predictions were found constant even after the effects of depression and attributional style were controlled at subsequent testings.

Nolen-Hoeksema, Seligman, and Girgus (1992) more recently confirmed their previous findings by conducting a five-year longitudinal study on predictors and consequences of childhood depressive symptoms. Subjects began participation in third grade. Results indicated that in early childhood negative events predicted depression whereas explanatory style did not. However, in later childhood, negative life events predicted depression only in the presence of internal, stable, and global attributions.

The lack of an interaction between life events and attributional style in early childhood may seem contradictory to helplessness/hopelessness theory. However, a plausible explanation for this finding is that negative life events are independent predictors of depression in early childhood because they are proximal causes. It is possible that distal causes take some time to develop and may even be perpetuated by depressive experiences. Thus, the predictive relationship between attributional style and life events strengthens during the course of children's development, a finding supported by Nolen-Hoeksema et al. (1992, 1986). Furthermore, the concept of episode perpetuation of a negative attributional style has been taken into account as part of the diathesis-stress model (Alloy et al., 1988).

Dixon and Ahrens (1992) examined attributional style and daily hassles in a sample of children with behavioral, academic, and peer problems. In addition to measures of daily

hassles and attributional style, participants were assessed for depression. Findings indicated that global and stable attributions for negative events were related to increases in depression only for subjects with more daily hassles.

Attributional style and life events have also been tied to helpless behavior. Peterson, Colvin and Lin (1992) examined attributional style and life events in predicting helpless behavior in an academic setting. A sample of 40 undergraduates enrolled in only one class was administered a measure of academic attributional style and asked to keep an academic diary for four weeks. Students were asked to record any setbacks or disappointments they experienced in the class each week and whether or not any action was taken to offset the event. Results indicated that students with a maladaptive academic explanatory style, when faced with a negative event, displayed a more passive and inhibited way of coping than students without the maladaptive explanatory style. Specifically, students who demonstrated the passive coping style tended to be less likely than the active copers to seek help from the professor, fellow students, friends, and obtain old tests and lecture notes.

The diathesis-stress model involving attributional style is said to be specific to depression. Analysis of depressive symptoms would have therefore been advantageous in Peterson et al.' (1992) investigation. Although passive coping was rationalized as being related to helplessness and depression, empirical support for this relationship would alleviate the need for inference.

Hopelessness theory as a diathesis-stress model has garnered additional support in prospective studies. Metalsky and Joiner (1992) examined the attributional diathesis in a

college sample. In addition to attributional style, expectation of consequences and self-blame were tested as contributors to the cognitive diathesis. Results showed a main effect for negative life events, but that predictions of depression improved when events were paired with a negative attributional style, high degree of self-blame, and expectation of enduring consequences. These relationships remained stable at a five-week follow-up. Of importance to hopelessness theory is the finding that subjects who exhibited the cognitive diathesis for depression only became depressed when high levels of stress were reported.

However, some limitations do exist in Metalsky and Joiner's (1992) study. Perhaps the most important is that they examined only the stable and global dimensions of the attributional construct. Although they incorporated a measure of self-blame, no justification is offered for the use of an extraneous measure of the internal dimension. It is therefore not clear as to whether or not the internal dimension was truly represented.

Other research has demonstrated that the diathesis-stress component in attributional theory involves other factors than life events. Peterson et al. (1992) in a second study, administered measures of coping and attributional style to a community sample. Participants also kept a diary of illness symptoms for three weeks. Results indicated that a negative attributional style led to increases in illness symptoms in individuals with a passive coping style.

Hull and Mendolia (1991) offer further support for the diathesis-stress conceptualization by examining the relationship between attributional style and expectancies in predicting depression. In two studies using college samples, participants were administered measures of attributional style, depression, and dispositional

expectancy. Results approached significance, indicating that individuals with a pessimistic disposition and negative attributional style experienced more problems with depression than other subjects. Although this finding was a trend, implications are congruent with the conceptualization of a negative attributional style as influencing expectations that lend to subsequent depressive experiences (Abramson et al., 1978; Seligman et al., 1979; Alloy et al., 1989).

In other areas, Panak and Garber (1992) investigated the relationship between attributional style and peer rejection in predicting depression in elementary school children. They found that participants who explained events to internal, stable, and global factors experienced problems with depression under conditions of peer rejection.

Research has also demonstrated that attributional style interacts with perceived control to predict depression. Brown and Siegel (1988) prospectively examined the role of perceived control in the relationship between attributions for negative events and depression. A community sample of adolescent females was administered self-report measures of attributional style, perceived control, and depression. Brown and Siegel found only when negative events were perceived as due to relatively uncontrollable factors did internal, stable, and global attributions account for increases in depression.

Others have found similar results in medical populations. Chaney et al. (1996) examined attributional style and depression in a sample of rheumatoid arthritis patients. Consistent with the hopelessness model of depression, it was found that a negative attributional style predicted depression in patience with low perceived control over illness. This interaction was found to predict difficulties with depression beyond the independent

influence of attributional style, perceived control, and a host of demographic variables.

It should be noted that some studies have examined the joint roles of life events and attributional style in predicting depression and failed to find a significant interaction. As mentioned in the previous section, Parry and Brewin (1988) found main effects for both attributional style and life events in predicting depression in a community sample. However, the interaction of attributional style and life events failed to reach significance. Nolen-Hoeksema et al. (1986) demonstrated a main effect for attributional style in predicting depression three out of five assessments over the course of one year. The interaction between life events and attributional style was demonstrated at two of the five testings. Finally, Hill and Kemp-Wheeler (1986) found life events to independently predict depression, found attributional style to independently predict neuroticism, but failed to find an interaction for either depression or neuroticism.

In general though, evidence suggests that the hopelessness theory of depression, conceptualized as a diathesis-stress model, is well supported. Negative attributional style has been found to interact with life events to predict problems with depression. Evidence also indicates that attributional style interacts with other cognitive and psychosocial indexes (e.g., coping style, perceived control, social support) to account for depression. In addition, attributional style's role in a diathesis-stress model has been examined in a wide array of populations.

The diathesis-stress model has also been demonstrated with life events and other cognitive factors similar to the attributional construct. Evidence suggests that life events may interact with self-appraisal to predict hopelessness (Bonner & Rich, 1988). In this

study a college sample was administered self-report instruments of depression, hopelessness, and appraisal style. Participants were also administered a life events survey that contained a possible 64 life events that occurred in the past year. From this an index of cumulative negative life stress summary score was obtained. Bonner and Rich found that low problem solving self-appraisal interacted with life stress to predict higher degrees of hopelessness. This relationship predicted the degree of hopelessness even after the influence of depression was taken into account.

A few limitations in Bonner and Rich's (1988) study do exist. Conceptualizations of the hopelessness and depression sequence differ. Unlike Bonner and Rich, some researchers contend that the role of hopelessness is one that precedes the onset of depression and symptom severity (Greene, 1989; Dixon, Heppner, Burnett, & Lips, 1993; Alloy, Abramson, Metalsky, & Hartlage, 1988). Examination of the relationship among life events and the hopelessness and appraisal variables in predicting depression may have added more to the results of Bonner and Rich's study. Perhaps the most significant limitation of Bonner and Rich's investigation is that it remains unclear as to what mechanisms constitute the cumulative negative life stress summary score used.

Dixon et al. (1993) examined the roles of hopelessness and life events in a stress-diathesis model of depression. A college sample was administered measures of hopelessness, depression, and life experiences. The life experiences survey contained 64 life events. Participants were asked to indicate the events that had occurred in the past year. The impact ratings of events designated as negative by the subject were summed to provide a negative life events score. Dixon et al. found that under high levels of stress,

participants who reported a high degree of hopeless experienced more problems with depression than subjects low in hopelessness. Furthermore, post hoc analyses demonstrated that the effects of hopelessness tended not to emerge until activated by high levels of life stress.

Research also indicates that life events interact with other cognitive variables to predict depression. In a previously mentioned study, Nacoste and Wise (1991) examined the relationship among negative life events, cognitions, and depression within three generations. College students and their same-sex parents and grandparents were administered self-report measures of automatic thoughts, dysfunctional attitudes, depression, and life events. On a scale with 57 possible events, participants were asked to indicate the events that they had experienced in the past year, whether each event was desirable, and the degree of positive or negative impact the event had on their lives. Only the negative life change scores were considered in this study. Results revealed a significant interaction for negative automatic thoughts and negative life events for young adults. Specifically, Nacoste and Wise found that young adults with high levels of negative automatic thoughts had more problems with depression than individuals with low levels of negative automatic thoughts when exposed to negative life events.

Miranda (1992) examined the relationship of life events and dysfunctional thinking to depression. In a community sample, adults with a history of depression were compared to adults without a history of depression on measures of dysfunctional thinking and the number of stressful life changes in the past six months. Miranda found that individuals with a history of depression reported more rigid, global, negative thinking and automatic

thoughts about the self, the world, and the future when exposed to stressful life events whereas those with no history of depression maintained lower levels of negative cognitions in the presence and absence of stressful life events. A few limitations in Miranda's (1992) study are worth noting. The sample included 14 individuals with a past history of depression and 183 individuals who reported no depressive experiences in their past. A smaller difference in the size of comparison groups may have facilitated more robust findings. Also, it is not clear how the stressfulness of life changes were derived or if change of any caliber was conceptualized as stressful.

Other researchers have discovered a relationship between negative life events and dysfunctional attitudes in predicting problems with depression. Segal, et al. (1992) examined life stress and attitudes in adults with a history of depression. Participants completed measures of attitude style, depression, and life events as well as interviews for each variable every two months for one year. Out of a possible 102 life events, subjects were asked to indicate the events which had occurred in the last two months and the degree of stress associated with each event. Segal et al. found that among individuals who dropped out of the study, those who relapsed experienced more interpersonal events and more stress associated with the events prior to dropout as compared to those who dropped out but did not relapse. For the participants who completed the study, relapse rates of self-critical subjects were escalated after exposure to achievement-related events than interpersonal events. This was found to be the case with both the number of events and level of stress associated with events. These congruency effects were not seen in subjects with a dependent attitude.

Segal et al. (1992) indicate that although their findings contribute to the current life events literature, some limitations do exist. These researchers used a relatively high score (i.e., 16) on the Beck Depression Inventory (Beck, Rush, Shaw, & Emery, 1979) as a criteria for relapse. It is possible that meaningful relapse in some cases was therefore overlooked. Furthermore, a total of 22 individuals who relapsed were compared to 23 nonrelapsers. A larger sample size may have enhanced the results of this study.

Clearly, evidence suggests that the role of life stress is congruent with a diathesis-stress model of depression. The interactive role of life events has been examined with attributional style and a host of related cognitive variables in predicting psychological distress. Cognitive factors such as hopelessness, dysfunctional thinking, and automatic thoughts have been demonstrated to interact with life events to predict depression.

Attributional Style, Life Events, and Childhood Sexual Abuse

Current conceptualizations of attributional style consider this construct as a component in a diathesis-stress model of depression. This conceptualization is based on early helplessness theory (Abramson et al., 1978) and subsequent hopelessness theory (Alloy et al., 1988). The basic premise is that individuals with an internal, stable, and global attributional style for negative events will likely experience problems with hopelessness and subsequent depression when faced with stressful life events. Previous literature demonstrates the relationship between attributional style and childhood sexual abuse, and between life events and childhood sexual abuse. Further, a large body of literature has documented the relationship between attributional style and life events. However, to date, this interactional model has not been tested in women with a history of

childhood sexual abuse.

Statement of Purpose

The purpose of the present study was to examine the role of attributional style and negative life events in predicting adjustment among adult survivors of childhood sexual abuse. It was hypothesized that women with a history of childhood sexual abuse would report more depressive symptoms and greater distress as compared to women without such a history. It was also expected that women whose explanatory style for negative events consisted of internal, stable, and global attributions would report more problems with depression and symptom severity compared to women with alternative attributional styles for negative events. In addition, it was hypothesized that depressive symptoms and level of distress would escalate as the amount of stressful life experiences in the past year increased. Finally, it was expected that women with a negative attributional style would report more depressive symptoms and overall distress when confronted with stressful life events in the past year as compared to women with an alternative attributional style and life events relationship. For the purposes of the present study, attributional style was measured by the Attributional Style Questionnaire (Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982), life stress was measured by the Life Experiences Survey (Sarason, Johnson, & Siegel, 1978), and adjustment was measured by the depression and global severity index subscales from the Symptom Checklist-90-Revised (Derogatis, 1977).

Method

Participants

Participants were 632 female undergraduate students. Students were recruited from psychology classes for a study examining life experiences and adult adjustment. Class credit was received for participation. Students were also given the opportunity to receive class credit by participating in other research projects and out of class assignments.

For the purposes of this study, childhood sexual abuse was defined as contact abuse only, excluding noncontact experiences such as exhibitionism, and was assessed by the Life Experiences Questionnaire (LEQ, described below). In order to be considered sexual abuse, a participant's abuse experience had to meet at least one of the following criteria: (1) abuse perpetrated by a relative, (2) greater than five years age difference between the victim and perpetrator, or (3) if less than five years age difference between the victim and perpetrator, threat of force or force was involved.

The women who served as participants in this study ranged in age from 18 to 54 years, with an average age of 19.76 years (SD=3.33). The majority of these women reported that they were not married (94.34%), whereas 5.66% were currently married or cohabitating with a partner. Of these 632 women, 84.1% were Caucasian, 2.7% were African American, 1.4% were Hispanic, 7.2% were Native American, 4.3% were Asian American, and 0.3% were biracial or Pacific Islander. Socio-economic status (SES) was assessed using father's occupation and education level (Myers & Bean, 1968). SES ranged from lower to upper class, with the average participant falling in the middle class.

Comparison of CSAS and nonvictims did not yield any significant differences in race. However, results did show a significant difference between CSAS and nonvictims on SES, $t(593)=2.64$, $p<.009$, with CSAS ($M=32.97$, $SD=13.89$) reporting a lower

socioeconomic status as compared to nonvictims (M=29.00, SD=13.61). (Note. Higher SES scores are indicative of lower SES). Analyses also revealed a difference between CSAS and nonvictims on participants' age, t(108.6)=3.68, p<.0004, with CSAS (M=21.68, SD=6.35) being older than nonvictims (M=19.37, SD=2.11). Finally, X^2 analysis indicated a difference in marital status between the two groups, $X^2(1)=20.84$, p<.001, with 15.46% of CSAS and 3.77% of nonvictims being married.

A total of 105 CSAS were identified from the pool of 632 participants in this study. Of these 105 women, 1% experienced kissing, 22.9% experienced nongenital fondling, 39% experienced genital fondling, 7.6% experienced oral/genital contact, 3.8% experienced penetration by objects, and 25.7% experienced anal and/or vaginal intercourse. (Note. CSAS were categorized by their most serious experience so that percentages sum to 100). The majority of women reported extrafamilial abuse (55.9%) as compared to intrafamilial abuse (44.1%). In regards to the duration of the abuse, 52% reported abuse that lasted less than one month, 16.7% reported abuse that lasted from one to six months, and 31.4% reported abuse that lasted longer than six months. Finally, 55.7% of the women reported that force or threat of force was used against them during their victimization experience.

Measures

Life Experiences Questionnaire (LEQ; Long, 1999). The LEQ is a self-report instrument that includes questions regarding demographic information, childhood sexual experience, and other potentially traumatic events (e.g., childhood physical abuse). Childhood sexual abuse is assessed by a series of eight questions asking participants

whether or not as a child (before age 17), they experienced a variety of sexual experiences. Specific follow-up questions are then asked about such experiences. The experiences in question include someone exposing themselves to the participant, fondling, oral-genital contact, and vaginal and anal intercourse or penetration. Subjects are instructed to exclude any voluntary sexual activities between themselves and a dating partner and any consensual sexual play with a peer as long as the partner, in either case, was no more than five years older than the subject. The criteria described previously are then used to identify women with a history of sexual victimization.

The LEQ is a revised version of the Past Experiences Questionnaire (PEQ; Messner et al., 1988). Internal consistency for the eight questions used to screen for childhood sexual abuse in the LEQ was calculated with a sample of 648 women and is good, Chronbach's alpha .89 (Messman-Moore & Long, in press). Two-week test-retest reliability of the LEQ has been examined previously with a sample of 145 women and is good (Long, 1999). Kappas and percent agreement on items related to identity of the perpetrator (intrafamilial versus extrafamilial, .86, 94%), duration of abuse (less than or greater than one year, 1.0, 100%), the nature of the sexual abuse (penetration versus no penetration, .91, 97%), and presence or absence of force (.39, 69%) all indicate a reliable scale. Similar results are seen in interclass correlation coefficients for items such as the age of onset of abuse (.99), the age of the perpetrator (.96), and the age difference between victim and perpetrator (.95).

Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1977). The SCL-90-R is a 90-item self-report symptom inventory designed to identify psychological symptoms in

psychiatric and medical patients and nonpatient groups. The SCL-90-R is designed to reflect nine primary symptom dimensions: depression, anxiety, phobic anxiety, somatization, interpersonal sensitivity, obsessive-compulsive behavior, hostility, paranoid ideation, and psychoticism. In addition, it contains three indices of general distress: the global severity index, positive symptom distress index, and positive symptom total.

For the purposes of this study, raw scores on the global severity index and depression subscales were used as measures of adjustment. The depression subscale and general distress index were selected on the basis of their previously established relationship with childhood sexual abuse (see literature review).

The SCL-90-R is comparably brief in its administration, takes approximately 12 to 15 minutes to complete, and is appropriate for use with adults and adolescents age 13 years and older. Examinees are instructed to indicate for each item, "how much that problem has distressed or bothered you during the past seven days including today." Indications are made by choosing the corresponding numerical value from one of five alternatives: not at all (0), a little bit (1), moderately (2), quite a bit (3), and extremely (4).

Research suggests that the SCL-90-R is a reliable and valid inventory. Measures of factor internal consistency range from alpha coefficients of .77 for Psychoticism to .90 for Depression (Payne, 1985). Payne also found test-retest reliability coefficients, at a one-week interval, ranging from .78 for Hostility to .90 for Phobic Anxiety. In addition, although no data are offered, Pauker (1985) suggests that the SCL-90-R has comparable levels of concurrent, convergent, discriminant, and construct validity as other symptom inventories.

Attributional Style Questionnaire (ASQ; Peterson, Semmel, von Baeyer, Abramson, Metalsky, & Seligman, 1982). The ASQ contains 48 questions and is designed to measure an individual's explanatory style for 12 hypothetical events. Half of the situations are related to interpersonal relationships and half are related to achievement; additionally, half of the situations have negative outcomes and half have positive outcomes. The measure requires respondents to provide the major cause for each event and rate this cause on a seven-point scale along internal, stable, and global dimensions with higher scores reflecting stronger degrees of each dimension. The ASQ yields three attribution dimensions scores (i.e., internal, stable, and global) for positive events and three for negative events; composite positive and negative attribution scores can also be obtained by summing the three scale scores for positive and negative events respectively. Peterson et al. (1982) report the internal consistencies of the Internality, Stability, and Globality Scales to range from .44 to .69. Reported internal consistency for composite negative and positive scores are .72 and .75 respectively.

The primary purpose of the present study was to examine the role of attributions for negative events, as positive events are not central to a diathesis-stress model of depression involving attributional style (Alloy et al., 1988, Peterson & Seligman, 1984). Therefore, the composite negative attribution score and scores on the individual negative attribution dimensions (i.e., internal negative, stable negative, and global negative) were examined separately in the analyses.

Life Experiences Survey (LES; Sarason, Johnson, & Siegel, 1978). The LES is a 60-item self-report instrument designed to assess the number of major life events that

individuals experienced over the last year. The respondent is asked to indicate those events that have occurred. Additionally, participants are asked to rate the impact associated with each event on a seven-point Likert scale ranging from extremely negative (-3) to extremely positive (+3). The impact ratings of those events designated as negative by the subject are summed to provide a negative life experiences score with more negative scores (i.e., smaller scores) reflecting more life stress. A positive experiences score is obtained by summing the impact ratings of those events experienced as positive by the subject. A total stress score can also be obtained by summing the positive and negative experiences scores. The LES has been demonstrated to be a reliable instrument, with test-retest coefficients ranging from .63 to .64 over a six-week period (Sarason et al., 1978). Furthermore, Sarason et al. have demonstrated that the negative life stress scores are related to depression, anxiety, and personal maladjustment.

Given that previous literature (e.g., Compas, 1987; Sarason, et al., 1978) has found that negative life events, as compared to positive life events, are related to depression, the negative life stress score was used in the present study. For the purposes of the present study, events which occurred over the past year were examined as events in this time period have been found to be related to adjustment difficulties (see literature review).

Procedure

All questionnaire data were obtained in group sessions conducted by psychology graduate students or a doctoral level psychologist. After informed consent was obtained and confidentiality assured, participants completed the LES, LEQ, ASQ, and SCL-90-R.

The measures were administered to participants in a random order. Upon completion of each data collection, participants were provided with debriefing information and a list of referral sources to local mental health agencies.

Results

Given that differences were found between CSAS and nonvictims on socioeconomic status (SES), marital status, and age, preliminary analyses were conducted to examine the relationship between the variables of interest in this study and these demographic variables. Results of correlational analyses between attributional style, life events, measures of adjustment, and demographic variables are presented in Table 1. No significant correlations between any of the demographic variables and either attributional style, life events, or adjustment scores were found.

Use of covariance procedures is often recommended when variables of interest in a study may be related systematically, as initially appears to be the case here with victimization status and the demographic variables. However, covariance procedures are only warranted in situations where concomitant and dependent variables have a linear relationship (Hayes, 1988). Given that SES, age, and marital status were not significantly correlated with any adjustment variables, attributional style, or life events in this sample, it was determined that controlling for the variance due to these demographic variables was not necessary here.

For the purposes of the present study two sets of four hierarchical regression analyses were conducted to examine the contribution of victimization status, negative life events, attributional style (e.g., composite negative, internal negative, global negative, and

stable negative), and the interactions of these variables in the prediction of depression and overall symptom severity. The depression subscale score and the global severity index from the SCL-90-R were used as criterion variables.

Predictor variables were entered in three blocks. In the first block victimization status, negative life events, and either the composite negative, internal negative, global negative, or stable negative attribution score were entered. In the second block, after the variance due to the variables just mentioned had been accounted for, terms for three possible two-way interactions (e.g., one of the four attributional style variables*negative life events, victimization status*negative life events, and victimization status*one of the four attributional style variables) were allowed to enter the model if the terms could account for a significant amount of variance beyond that accounted for in the preceding block. In the third block, after the variance due to the variables in the preceding blocks had been accounted for, a three-way interaction (e.g., one of the four attributional style variables*negative life events*victimization status) was allowed to enter if the interaction could account for a significant amount of variance beyond that accounted for in the preceding blocks. Thus, for each dependent variable, four hierarchical multiple regression analyses were conducted. Each regression examined the negative life stress total score, victimization status, and one of the four attributional style variables (e.g., composite negative, internal negative, global negative, and stable negative).

Symptom Severity

Composite Negative Attributional Style. Only the first block of variables (e.g., composite negative attribution score, victimization status, and negative life events) met

criteria for inclusion in the model predicting GSI scores (see Table 2). No interaction terms could account for a significant amount of the variance beyond that accounted for by the three main effects. Greater symptom severity was associated with attributing negative events to more internal, widespread, relatively permanent factors, greater negative life event stress in the past year, and a history of childhood sexual abuse ($t(627)=3.23$, $p<.001$, CSAS $M=0.81$, $SD=0.62$, nonvictims $M=0.62$, $SD=0.53$).

Internal Negative Attributional Style. Only the first block of variables (e.g., internal negative attribution score, victimization status, and negative life events) met criteria for inclusion in the model predicting GSI scores (see Table 2). No interaction terms could account for a significant amount of the variance beyond that accounted for by the three main effects. Greater symptom severity was associated with attributing a lack of control over negative events to characteristics of the self, higher negative life stress in the past year, and a history of childhood sexual abuse.

Global Negative Attributional Style. Only the first block of variables (e.g., global negative attribution score, victimization status, and negative life events) met criteria for inclusion in the model predicting GSI scores (see Table 2). No interaction terms could account for a significant amount of the variance beyond that accounted for by the three main effects. Greater symptom severity was associated with attributing the outcome of negative events to global factors that tend to generalize across situations, higher negative life stress in the past year, and a history of childhood sexual abuse.

Stable Negative Attributional Style. Only the first block of variables (e.g., stable negative attribution score, victimization status, and negative life events) met criteria for

inclusion in the model predicting GSI scores (see Table 2). No interaction terms could account for a significant amount of the variance beyond that accounted for by the three main effects. Greater symptom severity was associated with attributing the occurrence of negative events to relatively permanent contingencies, higher negative life stress in the past year, and a history of childhood sexual abuse.

Depression

Composite Negative Attributional Style. Only the first block of variables (e.g., composite negative attribution score, victimization status, and negative life events) met criteria for inclusion in the model predicting depression scores (see Table 2). No interaction terms could account for a significant amount of the variance beyond that accounted for by the three main effects. Higher depression scores were associated with attributing negative events to more internal, widespread, relatively permanent factors, higher negative life stress in the past year, and a history of childhood sexual abuse ($t(627)=2.92$, $p<.004$, CSAS $M=1.06$, $SD=0.80$, nonvictims $M=0.83$, $SD=0.73$).

Internal Negative Attributional Style. Only the first block of variables (e.g., internal negative attribution score, victimization status, and negative life events) met criteria for inclusion in the model predicting depression scores (see Table 2). No interaction terms could account for a significant amount of the variance beyond that accounted for by the three main effects. Higher depression scores were associated with attributing a lack of control over negative events to characteristics of the self, higher negative life stress in the past year, and a history of childhood sexual abuse.

Global Negative Attributional Style. Only the first block of variables (e.g., global

negative attribution score, victimization status, and negative life events) met criteria for inclusion in the model predicting depression scores (see Table 2). No interaction terms could account for a significant amount of the variance beyond that accounted for by the three main effects. Higher depression scores were associated with attributing negative events to global factors that tend to generalize across situations, higher negative life stress in the past year, and a history of childhood sexual abuse.

Stable Negative Attributional Style. Only the first block of variables (e.g., stable negative attribution score, victimization status, and negative life events) met criteria for inclusion in the model predicting depression scores (see Table 2). No interaction terms could account for a significant amount of the variance beyond that accounted for by the three main effects. Higher depression scores were associated with attributing negative events to relatively permanent contingencies, higher negative life stress in the past year, and a history of childhood sexual abuse.

Discussion

The purpose of the present study was to examine the role of attributional style, stressful life events, and childhood sexual abuse in predicting adjustment in adult women and to investigate the role these variables play in a diathesis-stress model of adjustment. As hypothesized, greater depressive symptoms and level of distress were observed in women who reported a history of childhood sexual abuse, more stressful life experiences in the past year, and a more internal, stable, and global style of attributing the causes of negative events. However, contrary to hypotheses in the present study, the interactions between attributional style and life events failed to predict depressive symptoms and

symptom severity in adult women. Implications for these findings are discussed below.

Results of this study provide further evidence that victimization status remains an important predictor of adjustment in adult women. Survivors of childhood sexual abuse reported more depressive symptoms and greater symptom severity compared to nonvictims. This finding adds to a consistent and growing body of research that suggests that a history of childhood sexual abuse is related to a number of adjustment difficulties, including depression (Polusney & Follette, 1995).

Findings from the present study also provide evidence that stressful life events predict women's adjustment. As hypothesized, women who reported more stressful life events in the past year were observed to have greater depression and greater symptom severity compared to women who reported fewer stressful events in the past year. This finding confirms previous research on the relationship between stress and psychological well being (see literature review).

A number of factors are thought to be involved in the relationship between stressful life events and distress. It has been argued that life events may disrupt daily schedules, including sleep and appetite patterns, so that certain physiological mechanisms may be linked to adjustment difficulties following stressful events (Ehlers et al., 1988). It is also possible that life events inhibit opportunities to seek pleasurable events and tasks that provide a sense of mastery, thereby facilitating a deficit in behaviors frequently associated with mood management (Young, Beck, Weinberger, 1993). It has also been argued that adjustment difficulties in response to stressful life events may contribute to the likelihood that future stressors will occur (Frazier & Schauben, 1994).

The present study also provides evidence that attributional style is an important factor in predicting women's adjustment. As expected, this finding suggests that each attributional dimension plays an integral role in predicting depressive symptoms and symptom severity. Specifically, women who tend to attribute the causes of negative events to more internal characteristics of the self, factors that generalize across situations, and relatively permanent contingencies are more likely to experience depressive symptoms and greater symptom severity as compared to women who demonstrate alternative explanatory styles for negative events. These results are consistent with Seligman et al.'s (1979) description of a depressive attributional style and a large body of subsequent literature (see literature review). These results are also among the first to identify a relationship between attributional style and general distress. To date, only one other study has demonstrated a relationship between attributional style and overall distress (Feiring et al., 1998).

Seligman et al. (1979) initially found that internal, stable, and global attributions for negative events correlated with adult depressive symptoms. Seligman et al. speculated that the depressive attributional style was latent until activated by a negative life event or set of events. An impressive body of research followed that, with reasonable consistency, supported Seligman et al.'s results of a direct relationship between a negative attributional style and depression (see literature review). However, the moderator role of negative life events was not thoroughly established until later.

An impressive body of literature examining moderating factors developed and the hopelessness theory of depression was formalized (Abramson et al., 1988; Alloy et al.,

1988). Based on the premises of the hopelessness theory of depression and supportive literature, it was hypothesized in the present study that stressful life events in the past year would interact with internal, global, and stable attributions for negative events to predict depression. Contrary to the hypothesis, results failed to reveal an interaction between attributional style and life events in predicting depression and symptom severity.

It is possible that attributional style and life events were not observed to interact in the present study because of the nature of life events that were examined. Stressful life events in the past year may not be proximally sufficient to activate the diathesis-stress model. The majority of studies that investigated attributional style during the course of ongoing stress found that a negative attributional style and life stress interacted to predict depression beyond that accounted for by main effects (Chaney et al., 1996; Metalsky & Joiner, 1992; Peterson & Colvin, 1992). To date, no other studies have examined life events that occur over the course of a year and their relationship with attributional style in predicting depression.

Another possibility is that there exists two distinguishable types of depression; the hopeless and non-hopeless (Greene, 1989). In current views of depression, it is possible that the diversity of factors associated with depression have been overlooked (Greene, 1989). Clearly current diagnostic classification of depression allows for a fair amount of variability in depressive symptoms (DSM-IV 1994). It is possible that diathesis-stress models of adjustment are quite appropriate for certain depressive experiences, as indicated by the hopelessness model of depression wherein hopelessness is a key depressive symptom (Alloy et al., 1988). However, hopelessness may not play such a salient role in

all depressive experiences. It is possible that in some cases, more parsimonious, unitary models are more appropriate, such as that seen in the present study with attributional style, stressful life events, and victimization status each directly predicting adjustment in adult women. It could be that different depressive experiences require an array of explanatory models.

Perhaps a diathesis-stress model is more suitable for explaining certain types of depressive experiences. Suitability may involve symptom configuration, as described above, or other factors, such as chronicity and severity. It is possible that the depressive symptoms and symptom severity observed in the present study represent more transient adjustment difficulties that may be subthreshold to clinically significant symptoms. The hopelessness model of depression may therefore appear more salient in more clinically depressed populations or when examined with a more comprehensive assessment of depression. The present study used a rather circumscribed measure of depression. A broader measure of depressive symptoms that may lend itself to item-analysis is recommended in future studies in order to add clarity to the hopelessness model of depression.

The results of the present study offer clear contributions to the current literature by providing evidence that childhood sexual abuse, a negative attributional style, and stressful life events directly predict women's adjustment. This study represents the first systematic investigation at this particular cluster of variables in predicting women's adjustment. The use of a large sample size and measures with demonstrated psychometric properties represent additional strengths of the current study. Given these strenghts, It is noteworthy

that both stressful events and attributional style play a similar role in predicting adjustment of both CSAS and nonvictims. Identification of factors explaining the adjustment of women years following victimization is needed and the results of this study add to the scant amount of research examining such factors in relation to victimization status. However, there are also some limitations to the current study.

One such limitation is the use of retrospective self-reports of abuse experiences and life events. Such reports may be vulnerable to inaccurate or distorted recall. Prospective studies could greatly benefit future research. In addition, it is possible that the potential of life events to act as a moderating factor in a diathesis-stress model may be more accurately examined by investigating their influence during the course of stress as opposed to retrospectively. Finally, the exclusive use of self-report measures increases the potential of variance due to methodological design.

Another measurement issue concerns the use of the depression subscale score from the SCL-90-R (Deragotis, 1977). Although this measure is well used and possesses excellent psychometric properties (Payne, 1985), the depression subscale represents a rather circumscribed measure of depressive symptoms. It is recommended that future research efforts attempt to replicate these findings with a more comprehensive instrument for examining depressive symptoms.

Finally, the use of a college sample in the present study limits the generalization of these findings. College students tend to represent a fairly high functioning, high socio-economic status group. Despite these limitations, though, findings from this study provide several important implications and generate new directions for future research and

treatment.

In addition to what is currently practiced in the treatment of survivors of childhood sexual abuse, the present study offers further considerations for therapy. Given that attributional style has been identified as a good predictor of adjustment it is recommended that therapists attempt to understand survivors' perceived control on an overall and partitioned level. The role that attributional style plays across survivors and nonvictims has been found to be quite consistent. Cognitive therapy interventions to address beliefs about control may be equally efficacious in CSAS as well as nonvictims. Therapists who treat survivors of childhood sexual abuse can assist these women in developing more accuracy and skill in interpreting their level of control over variables in their environment.

Control beliefs are frequently seen as integral cognitive variables in the treatment of depression (Young, Beck, Weinberger, 1993). Therapists are encouraged to examine patterns of cognitive reactivity following events in the environment and to help identify healthy alternatives. These patterns may involve beliefs about one's control over specific situations or life in general, appraising one's own efficacy in a number of roles, or even one's own effect on both internal and external events. Therapists are encouraged to monitor the presence of internal, stable, and global control orientations specific to negative events and facilitate skills for acquiring alternative attributional styles. Restructuring strategies are quite applicable in the treatment of depression and can be modified to any individual's unique learning history, including survivors of childhood sexual abuse.

Indeed, therapists such as Courtois (1987) suggest that survivors of childhood sexual abuse frequently experience a process referred to as the victim/survivor paradox,

wherein CSAS survive the abuse experience through their own efforts and resourcefulness. However, they continue to perceive themselves as powerless in their environment much as they experienced during the abuse. Courtois suggests that reevaluating the abuse, the circumstances in which it occurred, and effects of the abuse can enable survivors to decrease emotional arousal associated with the abuse experience. As a result survivors are able to experience a sense of empowerment and mastery. Others support this in that therapy can be viewed as a developmental process leading to increases in perceived control of the self and environment (Briere & Runtz, 1988; Lundberg-Love et al., 1992; Wheeler & Berliner, 1988).

In addition, throughout the course of treatment, therapists are encouraged to carefully assess the skill level of survivors and their actual level of perceived control as the course of treatment is an emotionally demanding experience. Teaching survivors self-support techniques and affect regulation skills are recommended to meet the emotional demands of abuse-focused therapy (Briere, 1996). Such focus may be especially important if ongoing stressors are involved, as these too predict adjustment.

It is possible that survivors may have limitations in their abilities to have their needs met in the environment. As mentioned previously, the occurrence of stressful life events may disrupt opportunities to seek activities that provide a sense of pleasure and mastery (Greene, 1988). Pleasurable and mastery-oriented activities have been implicated in the treatment of depression as these factors are related to empowerment and self-esteem (Young, Beck, Weinberger, 1993). Therapists are therefore encouraged to examine daily behavioral patterns in women and to work to compensate for any deficits in activities

related to mood management. Therapists are also encouraged to pay particular attention to any cognitive and behavioral skill deficits that women may experience and incorporate strategies such as assertiveness, social skills, communication, and problem-solving training into the treatment regimen (Briere, 1996; Herman, 1992).

Finally, findings from the present study offer implications for future research. Results here suggest that a history of childhood sexual abuse plays an important role in predicting adjustment in adult women. Furthermore, results indicate that a negative attributional style and recent history of life events each play a part in determining women's adjustment. In order to gain a better understanding of the diathesis-stress model, it is recommended that future research efforts examine more detailed depressive symptom configurations. This might help to provide a broader understanding of factors contributing to a variety of depressive experiences. It is also recommended that future research efforts focus on prospective studies, in hopes of gaining a clearer understanding of the hopelessness model of depression, especially as it pertains to childhood sexual abuse.

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Table 1
Simple Intercorrelations of Study Variables

	AGE	SES	DICHMS	ASQCN	ASQIN	ASQGN	ASQSN	NEGLSTOT	DEP	GSI
AGE	-	.13** (593)	.35*** (599)	-.02 (628)	-.01 (628)	-.04 (628)	.02 (628)	-.07 (621)	.01 (627)	.01 (627)
SES		-	.11** (569)	-.03 (594)	-.03 (594)	-.06 (594)	.04 (594)	-.04 (586)	.06 (592)	.06 (592)
DICHMS			-	.002 (599)	.01 (599)	-.01 (599)	.01 (599)	-.04 (593)	-.02 (598)	-.01 (598)
ASQCN				-	.75*** (630)	.84*** (630)	.77*** (630)	-.10** (622)	.26*** (627)	.27*** (627)
ASQIN					-	.41*** (630)	.38*** (630)	-.01 (622)	.11** (627)	.12** (627)
ASQGN						-	.51*** (630)	-.15** (622)	.29*** (627)	.30*** (627)
ASQSN							-	-.07 (622)	.19*** (627)	.20*** (627)
NEGLSTOT								-	-.48*** (620)	-.48*** (620)
DEP									-	.92*** (629)
GSI										-

Note. Numbers in parentheses are the sample sizes for the pair of simple correlations. DICHMS= marital status; ASQCN= Composite Negative Attribution score; ASQIN= Internal Negative Attribution score; ASQGN= Global Negative Attribution score; ASQSN= Stable Negative Attribution score; NEGLSTOT= Negative Life Stress score; DEP= SCL-90-R Depression score; GSI= SCL-90-R Global Severity Index.
*p<.05; **p<.01; ***p<.0001

Table 2
Hierarchical Multiple Regression Analyses Predicting Level of Distress and Depression

Step	Variable[a]	Partial Regression coefficients (b)	F for Partial Regression coefficients	R^2 for set	F for set	df
		Equation 1: Predicting GSI with ASQCN				
1	ASQCN	.01	53.91[d]	.29	85.44[d]	(3, 615)
	NEGLSTOT	-.03	168.12[d]			
	Victim	.12	5.74[b]			
No additional variables met criteria for inclusion in the model.						
		Equation 2: Predicting GSI with ASQIN				
1	ASQIN	.01	15.86[d]	.25	68.92[d]	(3, 615)
	NEGLSTOT	-.04	177.66[d]			
	Victim	.13	5.85[b]			
No additional variables met criteria for inclusion in the model.						
		Equation 3: Predicting GSI with ASQGN				
1	ASQGN	.02	56.46[d]	.30	86.55[d]	(3, 615)
	NEGLSTOT	-.03	156.84[d]			
	Victim	.14	7.20[b]			
No additional variables met criteria for inclusion in the model.						
		Equation 4: Predicting GSI with ASQSN				
1	ASQSN	.02	28.28[d]	.27	74.32[d]	(3, 615)
	NEGLSTOT	-.03	172.16[d]			
	Victim	.12	5.07[b]			
No additional variables met criteria for inclusion in the model.						

Continued

Table 2
Continued

Step	Variable[a]	Partial Regression coefficients (b)	F for Partial Regression coefficients	R^2 for set	F for set	df
		Equation 1: Predicting Depression with ASQCN				
1	ASQCN	.01	43.87[d]	.29	82.91[d]	(3, 615)
	NEGLSTOT	-.05	174.36[d]			
	Victim	.14	4.35[b]			
No additional variables met criteria for inclusion in the model.						
		Equation 2: Predicting Depression with ASQIN				
1	ASQIN	.02	11.41[c]	.25	68.73[d]	(3, 615)
	NEGLSTOT	-.05	183.63[d]			
	Victim	.15	4.51[b]			
No additional variables met criteria for inclusion in the model.						
		Equation 3: Predicting Depression with ASQGN				
1	ASQGN	.03	48.52[d]	.29	84.94[d]	(3, 615)
	NEGLSTOT	-.04	163.68[d]			
	Victim	.16	5.53[b]			
No additional variables met criteria for inclusion in the model.						
		Equation 4: Predicting Depression with ASQSN				
1	ASQSN	.03	23.47[d]	.27	74.00[d]	(3, 615)
	NEGLSTOT	-.05	178.71[d]			
	Victim	.14	3.85[b]			
No additional variables met criteria for inclusion in the model.						

[a] GSI= Global Severity Index subscale score from the SCL-90-R; Depression= Depression subscale score from the SCL-90-R; ASQCN= Composite Negative score from the ASQ; ASQIN= Internal Negative score from the ASQ; ASQGN= Global Negative score from the ASQ; ASQSN= Stable Negative score from the ASQ; NEGLSTOT= index of negative life stress in the past year; Victim= victimization status. [b]$p<.05$; [c]$p<.001$; [d]$p<.0001$

APPENDIX

(INSTITUTIONAL REVIEW BOARD)

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 09-03-96 IRB#: AS-95-015

Proposal Title: LIFE EXPERIENCES AND CURRENT ADJUSTMENT

Principal Investigator(s): Trish Long

Reviewed and Processed as: Modification and Continuation

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.
APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Disapproval are as follows:

Signature
Chair of Institutional Review Board

Date: September 26, 1997

VITA

Chebon A. Porter

Candidate for the Degree of

Doctor of Philosophy

Dissertation: ATTRIBUTIONAL STYLE, LIFE EVENTS, AND ADJUSTMENT IN ADULT SURVIVORS OF CHILDHOOD SEXUAL ABUSE

Major Field: Psychology

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Professional Memberships: Association for the Advancement of Behavior Therapy.