ALCOHOL USE BY SURVIVORS OF CHILD SEXUAL ABUSE: ONE POSSIBLE EXPLANATION FOR REVICTIMIZATION

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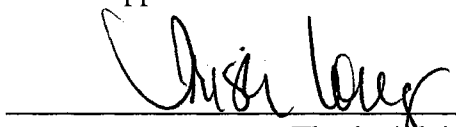

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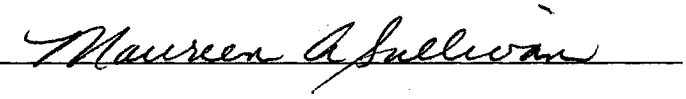

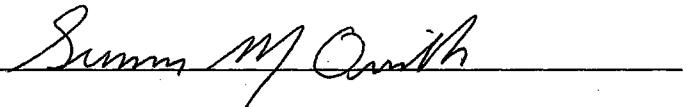

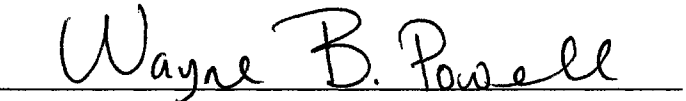

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TABLE OF CONTENTS

I. INTRODUCTION

ALCOHOL USE BY SURVIVORS OF CHILD SEXUAL ABUSE: ONE POSSIBLE EXPLANATION FOR REVICTIMIZATION

Violence against women and children is a serious problem in this country, and has serious psychological effects on its victims. Estimates of prevalence of child sexual abuse (CSA) in the general female population range from 15% to 33% (for review see Kendall-Tackett, Williams, & Finkelhor, 1993). Prevalence rates are even higher in clinical populations, ranging from 35% to 75% (Kendall-Tackett, et al.). Approximately 20% of women are victims of rape each year (Bagley et al., 1984; Russell, 1982, 1983; Wyatt, 1985).

CSA has effects not only in childhood, but into adulthood as well. CSA has been associated with numerous long-term adjustment difficulties which occur during adulthood, including depression, suicide, anxiety, isolation, stigmatization, low self-esteem and substance abuse (for review see Browne & Finkelhor, 1986; Polusny & Follette, 1995). Another long-term effect which has been associated with CSA is a greater vulnerability to future instances of abuse, or revictimization. Revictimization is defined as the experience of both CSA and later sexual, physical or psychological abuse as an adult. Revictimization is perhaps one of the most alarming long-term effects because the experience of revictimization itself may compound and magnify the effects of the sexual abuse in childhood (Messman-Moore, Long, & Siegfried, 1998). This is not a clear cut issue, however, as there has been little research concerning the existence of the phenomenon of revictimization following CSA, nor

investigating the effects of revictimization. In a review of the literature that is available, Messman and Long (1996) found that between 16% and 72% of women who experienced sexual abuse as children were likely to be revictimized later in life. Messman-Moore, Long and Siegfried (1998) found that victimization experiences appear to have a cumulative effect such that revictimized women reported the highest levels of psychological distress, including more problems with general psychological distress, somatization, depression, anxiety, PTSD-like symptoms and interpersonal sensitivity as compared to women with no history of abuse or women who experienced only adult assault.

Although there is some empirical evidence for revictimization, to date, few theories regarding the etiology of revictimization have been empirically tested. However, several long-term effects associated with CSA have been noted which may heighten a woman's vulnerability to victimization in adulthood. Factors such as learning processes (Herman & Hirschman, 1981; Wheeler & Berliner, 1988), denial (Roth, Wayland & Woolsey, 1990), low self-esteem (Finkelhor & Browne, 1985; House, Street, & Arias, 1996; Jehu & Gazan, 1983; Walker, 1981), sexual attitudes (Smith, Whealin, Davies & Jackson, 1996), learned helplessness (Finkelhor & Browne, 1985; Peterson & Seligman, 1983; Walker, 1984; Walker & Browne, 1985), and choices regarding relationships (Herman & Hirschman, 1977; Jehu & Gazan, 1983; van der Kolk, 1989) have been theorized to contribute to this pattern. However, investigators have appeared to overlook an important factor that may link CSA to adult sexual victimization: alcohol consumption.

It is well documented that alcohol use is linked to sexual assault. CSA has been associated with alcohol abuse and heavy consumption in adolescence and adulthood. The examination of alcohol use and abuse by survivors of CSA is important in that this long-term effect may help explain the occurrence of revictimization. As discussed, few theories regarding the etiology of revictimization in survivors of CSA have been explored. However, given that women with a history of CSA are likely to have problems with alcohol, and given that alcohol consumption has been identified as a risk factor for sexual assault in adulthood, it seems likely that these two factors are related to the occurrence of revictimization. Because little research has focused on the relationship between CSA, alcohol use and adult sexual victimization, this study will investigate the relationship between these three factors. However, before the specific purpose and hypotheses of this study are presented, the literature regarding CSA and its effects will be discussed. A review of empirical studies which investigate the association between CSA and revictimization, between CSA and alcohol use, and between alcohol use and adult sexual assault will follow.

Characteristics of Child Sexual Abuse

Prevalence

According to Browne and Finkelhor (1989) CSA consists of two overlapping but distinguishable types of interaction: (a) forced or coerced sexual behavior imposed on a child, and (b) sexual activity between a child and much older person, whether or not obvious coercion is involved (a common definition of "much older" is 5 or more years). Not all researchers require the age differential to label an

experience as abusive. Some focus on whether the experience was considered to be abusive (Finkelhor, 1984), unwanted (Russell, 1983), coercive (Wyatt, 1985), or the result of pressure or force (Finkelhor, 1986). Differences between researchers' definitions also occur when considering the ages during which abuse is considered CSA. Some researchers consider only experiences before age 16 (Finkelhor, 1986), while others consider abuse prior to age 18 (Russell, 1983; Wyatt, 1985). Experiences can be described as either noncontact or contact. Noncontact experiences usually include either encounters with exhibitionists or solicitation to engage in sexual activity, where no physical contact occurred. Contact abuse applies to behaviors that do involve sexual contact, including fondling of breasts and genitals, intercourse, and oral or anal sex.

Despite a recent increase in research in the area of CSA, little agreement has been reached on the prevalence of sexual abuse in childhood. Studies of CSA reported retrospectively by adult women have identified prevalence rates ranging from 6% to 62% (Peters, Wyatt, & Finkelhor, 1986). These apparently discrepant rates may be due to variations in the reporting and documentation of cases of CSA, as well as be due to a variety of methodological factors in these studies. Such differences involve the population sampled, as samples of clinical and community women generally reveal higher rates than those using college populations. Methods regarding the definition of CSA, as well as means of detecting and assessing abuse also affect prevalence rates. Accounting for such differences, Peters et al. (1986) speculate that approximately 25% to 35% of all women have experienced CSA at some point in

their lives. Similar rates, between 20% and 30% for females were found in other studies (Finkelhor, Hotaling, Lewis, & Smith, 1990; Russell, 1986; Wyatt, 1985). Due to in part to the negative impact of sexual victimization on later mental health, recent studies of the prevalence of sexual abuse in psychotherapy or psychiatric samples usually have revealed higher rates than are found in nonclinical populations. Studies of female inpatients or outpatients report sexual abuse rates somewhere between 36% and 75% (Briere, 1992; Briere & Runtz, 1988; for review see Polusny & Follette, 1995).

Abuse Characteristics

Several characteristics of CSA such as forms of sexual abuse, age at victimization, identity of the perpetrator, presence of coercion, and duration of abuse are important to examine when investigating CSA and its effects. These characteristics are reviewed below.

Forms of Sexual Abuse. As mentioned previously, CSA may include noncontact experiences, contact experiences or both. Finkelhor (1979) found that 38% of the female victims experienced genital fondling. Intercourse was reported less frequently; Finkelhor reported a rate of 4%. Noncontact experiences such as exhibitionism account for 20% of the female victims' experiences (Finkelhor, 1979). Another study found that approximately one half of CSA survivors report experiencing attempted or completed vaginal, anal, or oral intercourse (Finkelhor et al., 1990). Gomes-Schwartz, Horowitz, and Cardarelli (1990) reported that the majority of children experienced serious abuse, with 28% experiencing either vaginal

or anal intercourse, 38% oral-genital contact or actual penetration (usually with fingers), and 23% reporting fondling or forced stimulation of the offender. Although the above findings are generally reported, rates of such activities may differ according to the type of sample involved. Clinical samples tend to reveal higher percentage rates of more severe forms of sexual abuse including oral, anal, or vaginal intercourse experiences (Rimsza & Niggemann, 1982).

Age at Victimization. It is generally recognized that regardless of age, all children are vulnerable to sexual abuse. However, the average age of victims when abuse begins seems to be before puberty. In a review of the literature, Polusny and Follette (1995) reported that the mean age of onset has been estimated to range between 7 and 9 years. Finkelhor (1979) found the average age of girls to be 10.2 and of boys to be 11.2 years. However, Russell (1986) reported that molestation usually begins when the child is less than 8 or 9 years old. Kendall-Tackett (1988) found an average age of onset of 7.5 years for a sample of boys and girls. For the vast majority of her sample, abuse started between the ages of 3 and 12. However, this younger average age of onset may be due to her sample of clinical subjects, rather than use of a community sample.

One explanation for the high risk during this age is the tendency that preadolescent children are becoming more independent and require less supervision. These factors may place children at greater risk by exposing them to more potentially abusive situations (Long, 1992). Knowledge regarding sex and sexual situations may also be important. Finkelhor (1979) has suggested that although children are learning

the meaning of sexual situations, they may not yet be skilled at avoiding or dealing with them. This may result in an increased vulnerability for children at the pre-pubescent ages.

Identity of the Perpetrator. The victims of sexual abuse usually know their perpetrators. Finkelhor (1979) found that 76% of the female victims, and 70% of the male victims knew the perpetrator of their abuse. Gomes-Schwartz and her colleagues (1990) reported similar findings; 71% were certain of the identity of their perpetrator, while 17% were reasonably certain. Similarly, Fromuth (1983) and Russell (1983) found that only 12% and 11% of the women in their samples, respectively, were abused by strangers.

Not only are the perpetrators known by the victim in many cases, but they are often members of the victim's nuclear or extended family. Peters (1976) reported that 32% of the child molestation in his sample occurred within the extended or immediate family. Finkelhor (1979) found that a family member was the perpetrator for 43% of the female victims in his study, while Russell (1983) has found family members to be the perpetrator in 20% of the cases. Fathers, step-fathers, or other father figures have been named as the perpetrator for 4% of females in Finkelhor's sample, and for 4.5% of women in Russell's study. Gomes-Schwartz et al. (1990) found that 19.2% of CSA victims were abused by a natural parent, with an additional 20.5% abused by a parental figure (mostly step-parents, but also adoptive and foster parents and parent's live-in partner). Approximately 22% of CSA victims were abused by another relative, including uncles, grandfathers, siblings, cousins and other relatives.

Another one-third of CSA victims were abused by someone outside the family.

The literature indicates that the majority of perpetrators are male. Finkelhor (1979) found that males initiated the abuse with 94% of female victims. Findings of Gomes-Schwartz et al. (1990) were similar: 96% of perpetrators were male. Women are rarely identified as the perpetrator of abuse, but it is not unheard of. Russell (1983) identified only 4% of intrafamilial perpetrators and 4% of extrafamilial perpetrators as female.

Coercion. Sexually abusive acts may sometimes be completed by use of force. This may range from the threat of force to actual physical restraint. Finkelhor (1979) found that 55% of the women in his sample reported that the perpetrator used some type of force to gain their participation during the abusive experience. Russell (1983) found that 41% of victims of intrafamilial abuse were forced. Gomes-Schwartz (1990) found that in 52% of sexual abuse cases, verbal manipulation was accompanied by aggression, threats, or both. She and her colleagues found that the use of only aggression or threats occurred only 3% of the time. Typically, the offender attempted to cajole or threaten the child verbally before violence occurred. Thus, the threat and use of physical force appears to be a common factor in child sexual abuse experiences.

Duration and Number of Occurrences. In their review, Polusny and Follette (1995) report an average duration of abuse ranging between 2 and 6 years. Briere and Runtz (1988) found that 46.4% of victims were abused on multiple occasions for up to one year; and 12.2% were abused for longer periods. Gomes-Schwartz,

Horowitz, and Cardarelli (1990) reported that 21% of their abused children experienced a single incident, 30% for less than one year, and 25% for one to five years. Kendall-Tackett (1988) found that one year or less was the single most reported duration, however this range accounted for only 15% of the abuse experiences. Single occurrences of sexual abuse are reported most frequently in the research literature. Briere and Runtz (1988) found that 41.4% of all abuse victims experienced a single abuse incident. Sedney and Brooks (1984) and Finkelhor (1979) found that 58% and 60% of victims, respectively, reported single occurrences. Cases that are reported to continue for more than one year in duration often involve intrafamilial abuse (Fromuth, 1983).

Characteristics and Psychological Impact. Although it is likely that, if untreated, any form of CSA increases risk for later mental health problems (Berliner, 1991), certain aspects of sexual abuse appear to be especially associated with long-term psychological impact. Research has been far from conclusive, however, with some studies showing an effect of one abuse characteristic and others not. However, Briere (1992) suggests that sexual abuse involving one or more of the following characteristics is frequently associated with greater trauma than experiences without such characteristics: greater duration and frequency of the abuse (e.g., Elliot & Briere, 1992), multiple perpetrators (e.g., Peters, 1988), presence of penetration or intercourse (e.g., Finkelhor et al., 1989), abuse at an earlier age (e.g., Zivney, Nash, & Hulsney, 1988), molestation by a perpetrator substantially older than the victims (e.g., Finkelhor, 1979), concurrent physical abuse (e.g., Briere & Runtz, 1989),

abuse involving more bizarre features (e.g., Briere, 1988), the victim's immediate sense of personal responsibility for the abuse experience (e.g., Wyatt & Newcomb, 1991), and victim feelings of powerlessness, betrayal, and/or stigma at the time of abuse (e.g., Henschel et al., 1990).

Effects of Child Sexual Abuse

It is generally believed that the experience of sexual abuse in childhood can result in initial, or short-term effects (during childhood), and long-term effects (during adulthood). Initial effects of CSA will be briefly discussed first. This will be followed by a more detailed review of the long-term effects given that this project focuses on two specific long-term effects of CSA on adult women.

Initial Effects. A review of available literature indicates that sexually abused children have more symptoms than nonabused children (for review see Kendall-Tackett, Williams, & Finkelhor, 1993). Across studies, approximately 20-30% of sexually abused children have a particular symptom. However, between 21% and 49% of CSA victims had no symptoms. With the exception of PTSD, no symptom was manifested by the majority of CSA victims.

Many initial effects of CSA have been identified: sleep and eating disturbances (Anderson, Bach, & Griffith, 1981; Dubowitz et al., 1993), fears and phobias (Gomes-Schwartz, Horowitz, & Sauzier, 1985), guilt, shame, and depression, (Anderson et al., 1981; Dubowitz et al., 1993), anger and hostility (Gomes-Schwartz et al., 1990), aggression, (Gomes-Schwartz et al., 1990), somatic complaints (Dubowitz et al., 1993; Gomes-Schwartz et al., 1990), school problems (Gomes-

Schwartz et al., 1990), inappropriate sexual behavior (Kendall-Tackett et al., 1993), and suicidal behavior (Briere & Runtz, 1986). However, many of these studies suffer from methodological problems including lack of standardized outcome measures. Further, this research primarily involves samples of only sexually abused children, omitting comparison or control groups. Given this, it is difficult to determine if the problems reported are actually a result of the abuse, or an effect of other factors. Thus, these findings may not be accurate for all sexually abused children.

Long-term Effects. Problems that occur for children following the abuse may persist into adulthood. It is now generally well-accepted that a history of CSA is a risk factor for significant psychological difficulties in adulthood. As mentioned previously, a history of CSA has been associated with numerous long-term adjustment difficulties including depression, suicide, anxiety, eating disorders, dissociation, somatization, and interpersonal difficulties (Browne & Finkelhor, 1989; Polusny & Follette, 1995). Two other problems have been associated as long-term effects of the sexual abuse experience: revictimization and substance abuse. Because these will be the focus of the current study, these effects will be discussed in detail later.

Several studies have found evidence that CSA experiences are related to general psychological distress. Fromuth and Burkhart (1989) found that CSA victims reported higher scores on the Global Severity Index (GSI) of the Hopkin's Symptom Checklist-90 (SCL-90). Other studies have utilized the Minnesota Multiphasic Personality Inventory (MMPI) to measure general levels of distress. Roland, Zelhart, and Dubes (1989) found higher elevations on all scales for women abused by father

figures as compared to women who were abused by someone other than a father figure, or those reporting no CSA history. Hunter (1991) compared the MMPI profiles of CSA victims with a matched control group and found that CSA victims reported higher scores on nearly all of the scales.

A relationship between CSA and symptoms of depression has been reported in several reviews (Beitchman et al., 1992; Browne & Finkelhor, 1986; Polusny & Follette, 1995). Polusny and Follette reported that three recent studies using nonclinical samples reported differences between victims and nonvictims of CSA. These studies found that CSA victims scored higher on the Beck Depression Inventory (BDI; Braver et al., 1992; Jackson et al, 1990; Yama et al., 1993). Briere and Runtz (1988) found that female colleges students with a history of CSA reported higher levels of depression than nonabused women on the SCL-90. Other researchers have reported a relationship between a history of sexual abuse and depression using the Depression scale of the MMPI (Hunter, 1991; Roland et al., 1989). Studies using standardized clinical interviews to measure depression have also found evidence of this relationship (Burnam et al., 1988; Peters, 1988; Saunders et al., 1992; Stein et al., 1988).

Previous reviews have also suggested a relationship between suicidal behaviors and CSA (Briere & Runtz, 1993; Browne & Finkelhor, 1986; Polusny & Follette, 1995). In a community sample of women, Jackson et al. (1990) found that female incest survivors reported more suicidal behavior than a comparison group of nonabused women. Saunders et al. (1992) found that 32% and 36% of women

experiencing contact sexual abuse and childhood rape, respectively, compared to 20% of nonabused subjects reported a history of suicidal ideation. Further, 16% (contact sexual abuse) to 18% (child rape) of subjects compared to only 6% of nonabused subjects reported a history of attempted suicide.

Anxiety has been identified as a long-term effect of CSA as well. Reviews of the literature have suggested a link between a history of CSA and symptoms of anxiety and tension (e.g., Beitchman et al., 1992; Browne & Finkelhor, 1986; Polusny & Follette, 1995). Briere and Runtz (1988) found that victims of sexual abuse reported higher levels of chronic (but not acute) anxiety compared to nonvictims. This finding has also been found for the Psychasthenia scale of the MMPI (Hunter, 1991; Roland et al., 1989). Studies using structured clinical interviews also support this relationship. Findings revealed that women with a history of contact sexual abuse experience higher levels of anxiety than nonabused women (Burnam et al., 1988; Pribor & Dinwiddie, 1992; Saunders et al., 1992) and PTSD (Pribor & Dinwiddie, 1992; Rodriguez, Ryan & Foy, 1992; Saunders et al., 1992).

Research has also suggested that CSA may be a contributing factor to the development of an eating disorder (see Conners & Morse, 1993 for review). Beckman and Burns (1990) reported that 49% of bulimic college students compared to 27% of nonbulimic student reported sexual abuse in childhood. Miller, McCluskey-Fawcett, and Irving (1993) found similar findings. Rodriguez et al. (1992) reported than more than 80% of their clinical sample who had a history of CSA also indicated a history of some form of disordered eating behavior. Specifically, 69% of abused

subjects reported engaging in binge eating, and 21% reported purging during some period in their lives.

Recent research has revealed some evidence for a relationship between CSA and dissociative experiences (for review see Polusny & Follette, 1995). Briere and Runtz (1991) illustrate how victims of CSA may manifest dissociative phenomena, including "disengagement (or 'spacing out') during times of stress, detachment or numbing, out-of-body experiences, repression of painful abuse-related memories, fugue states, and multiple personality disorder" (p. 7).

A history of CSA may also place women at risk for development of somatic problems. Research using the MMPI (Hunter, 1991; Nash et al., 1993) has found evidence that CSA victims score higher than nonvictims on the Hypochondriasis scale, suggesting excessive preoccupation with bodily functions and somatic symptoms. In a sample of undergraduate women, Briere and Runtz (1988) found that CSA victims reported higher levels of chronic somatization (using the SCL-90) than did nonabused women.

Difficulties in interpersonal relationships experienced by some victims of CSA have been documented by Browne and Finkelhor (1986) as well as Polusny and Follette (1995). Briere and Runtz (1988) found that significantly more victims of CSA (48%) reported fear of men than nonabused women (15.1%). Jackson et al. (1990) found that victims of CSA had greater difficulties than nonabused women in overall social adjustment.

Clearly the experience of sexual abuse in childhood has serious long-term

effects. These effects include increased levels of general distress as well as specific psychological symptoms. In addition to the difficulties discussed above, there is evidence that CSA is also related to revictimization and substance abuse. Because these effects will be the focus of this study, they will be reviewed separately. In addition, given the strong association between alcohol consumption and adult sexual victimization, empirical research in this area will be reviewed as well.

II. REVIEW OF THE LITERATURE

Revictimization: Child Sexual Abuse and Adult Sexual Assault

Revictimization Theory

A variety of explanations have been posited to explain why women who are sexually abused in childhood may be at greater risk for revictimization. Factors such as learning processes, denial, low self-esteem, learned helplessness, and choices regarding relationships have been theorized to contribute to this pattern.

The concepts of learning theory can be applied to sexual abuse to explain how abuse may reoccur in a cyclic fashion. Initial abuse may result in learned maladaptive behaviors, beliefs, and attitudes, and in children's failure to learn adaptive behaviors (Wheeler & Berliner, 1988). Such learning may occur through social learning processes similar to those proposed by Bandura (1977). Thus, the CSA victim may acquire an inappropriate repertoire of sexual behaviors and experiences through the perpetrator's modeling, instruction, direction and reinforcement, and even punishment. In addition, the child may be taught inappropriate beliefs through verbal and nonverbal messages. Diminished self-efficacy may result as a consequence of the perpetrator's disregard for the child's wishes and the child's inability to control her/his sense of self through her/his body. These learned behaviors and beliefs may contribute to victims' vulnerability to adult victimization. Herman and Hirschman (1981) have suggested that many female incest victims who have seen their mothers beaten may learn to expect that men in their lives will mistreat them also, leading to greater risk for revictimization.

Another factor commonly included in theories for the explanation of revictimization, sex role stereotyping, can be traced to the learning history of the victim. Walker and Browne (1985) have suggested that rigid sex role stereotypes are learned during childhood and may extend into marriage, causing distortions in the way women respond to abuse. It is suggested that women in our society are taught to be dependent on others for their sense of security and well-being. It is also hypothesized that some women may depend upon personal relationships as a source of self-esteem. In addition, Walker and Browne state that childhood physical or sexual abuse may affect a woman by making her less skilled at self-protection, less sure of her own worth, and more apt to accept victimization as part of being a woman. Thus, these learned messages create an atmosphere in which revictimization may be more likely to occur, because such abuse is not seen as unusual, but as expected and acceptable.

Relationship choices are also thought to play a role in the occurrence of revictimization. It is thought that women who have experienced sexual abuse as children learn and adopt an inappropriate repertoire of sexual behavior, and may learn to associate sexuality with pain, punishment, or other negative consequences. Thus, experiencing additional sexual victimization is not unusual to such women. This tendency has been described by others as a "masochistic tendency" (Herman and Hirschman, 1977; van der Kolk, 1989). It would probably be more appropriate, however, to instead call such a tendency a learned expectancy, thus removing the negative connotation involved with the word masochism. Jehu and Gazan (1983)

mention that there appears to be a tendency for victims to oversexualize all relationships with men, to become involved repeatedly in relationships that are punitive and ill-matched, as well as to become involved repeatedly with men who misuse women. Similarly, Tsai and Wagner (1978) state that victims seem to have a "compulsion in getting involved with unworthy men." These authors go on to comment that victims frequently report that the men that they become involved with often resemble their molesters.

It has been hypothesized that relationship choices may be related to three components that are directly influenced by CSA (Jehu and Gazan, 1983). These components include: (a) low self-esteem, (b) the desire to justify moral superiority and hostility directed towards men, and (3) a failure to learn assertion and protective skills (which may have been modeled by the mother). Walker (1981) has explicitly described the effects of each of these factors. She suggests that low self-esteem, as well as negative self-image, are reinforced by the sex role stereotypes that create expectations of how a woman needs to perform the role of "wife." Walker also offers a theoretical explanation for the phenomenon of "passivity" in women who are physically abused. She suggests that passivity masks the anger that these women experience. However, it is not to their advantage to express this anger, because such an expression could precipitate another incident of abuse. In addition, she suggests that sex role socialization may exacerbate a woman's inability to recognize and/or express her true feelings. For instance, within the female role it is not considered "proper" for women to display anger. Further, Walker states that denial is a common

reaction, and that battered women will deny that an incident was actually physical abuse, deny the seriousness of their injuries, and minimize the potential for further abuse. Denial is also examined by Roth, Wayland, and Woolsey (1990), who posited that the denied effects of extensive sexual assault may increase the likelihood of revictimization.

Learned helplessness has also been utilized as a possible explanation for the relationship between CSA and further victimization. Walker (1984) and Walker and Browne (1985) have applied this traditional theory to women in abusive relationships. They state that women who have experienced a series of physical, sexual, or psychological attacks that were noncontingent upon their behavior will begin to perceive fewer and fewer options for escaping the abuse; thus, victims' focus will be on minimizing injury and coping with pain and fear. Consequently, these women may fail to see possible escape routes that are obvious to an outside observer. Walker and Browne emphasized that the phenomenon of learned helplessness in conjunction with traditional gender socialization may increase vulnerability to helplessness in an abusive relationship.

Peterson and Seligman (1983) have also discussed application of the theory of learned helplessness to victimization, and have focused on causal attributions as they relate to the response to abuse. They propose that passive responses may be due to stable and global attributions, while active responses may result from unstable and specific attributions. Peterson and Seligman (1983) go on to state that repeated victimization seems likely to produce internal, stable, and global attributions. These

attributions could also be related to findings of a lack of anger following rape in adult incest victims, and a feeling that they "deserved" the abuse (Herman & Hirschman, 1981).

Although not a theory of revictimization per se, Finkelhor and Browne (1985) have also proposed a model that describes the process through which effects of sexual abuse can occur: the Traumagenic Dynamics model. This model proposes that the experience of sexual abuse can be analyzed in terms of four trauma-causing factors or traumagenic dynamics--traumatic sexualization, betrayal, powerlessness, and stigmatization. The phenomenon of revictimization can be explained by all four dynamics.

Traumatic sexualization "refers to a process in which a child's sexuality (including both sexual feelings and sexual attitudes) is shaped in a developmentally inappropriate and interpersonally dysfunctional fashion as a result of sexual abuse" (Finkelhor and Browne, 1985, p. 531). For example, the child may be rewarded by the perpetrator for engaging in inappropriate sexual behavior. Learning to exchange sexual behavior for affection, attention, or other privileges teaches the child to use sexual behavior in order to manipulate others. Thus, traumatic sexualization may be related to the high risk sexual abuse victims have regarding future sexual assault. Children who have been abused sexually may emerge with inappropriate repertoires of sexual behavior or confusion and misconception regarding their sexual self-concept (Finkelhor and Browne, 1985); this may extend into adulthood, and influence future victimization experiences.

The second component, betrayal, refers to the "dynamic by which children discover that someone on whom they were vitally dependent has caused them harm" (Finkelhor and Browne, 1985, p. 531). Betrayal is a common effect found in victims of CSA and can cause the victims to suffer disillusionment. This can translate into an intense need to regain trust and security. This need may be illustrated by impaired judgment concerning the trustworthiness of others, or a desperate search for a satisfying relationship. Thus, betrayal may be related to both overdependency upon relationships as well as impaired judgment, which may be contributing factors to future victimization.

A third psychological effect of CSA is a feeling of stigmatization, which is also directly related to feelings of low self-esteem. Stigmatization refers to the "negative connotations -- e.g., badness, shame, and guilt--that are communicated to the child around the experiences and that then become incorporated into the child's self-image" (Finkelhor & Browne, 1985, p. 532). Low self-esteem can result from the negative attitudes directed towards victims of abuse, and the message that they are "spoiled merchandise" (p. 533). As a result of a negative self-image, child victims may be at greater risk for later revictimization (Jehu & Gazan, 1983).

Lastly, feelings of powerlessness have also been found to be an effect of CSA. Powerlessness has also been called disempowerment, and concerns the victim being rendered powerless. This includes the process in which "the child's will, desires, and sense of efficacy are continually contravened" (Finkelhor and Browne, 1985, p. 532). Finkelhor and Browne state that having been victimized on repeated occasions, the

victim may find it difficult to act without the expectation of being revictimized. This expectation may contribute to absence of preventative action to others who are trying to manipulate or harm the victim, similar to the dynamics seen in the learned helplessness model of revictimization.

The model of truamagenic dynamics incorporates features of a variety of the concepts mentioned earlier, including factors such as self-esteem and learned helplessness. However, as encompassing as it may be, it is unclear whether it will adequately explain revictimization. To date, few theories about the etiology of revictimization have been empirically tested. Additional research within this area is clearly needed. Nevertheless, despite absence of a firm theoretical background, a number of researchers have provided information regarding the occurrence of revictimization.

Review of Empirical Literature

Support for the phenomena of revictimization, or the relationship between CSA and adult sexual victimization, can be found in CSA literature, although few studies are designed especially to investigate this issue. Empirical studies have included college, clinical and community samples. All studies reviewed include only female participants unless otherwise stated.

Community Samples. Usually the most desired sample is that which allows the greatest generalization, which is also the case in research regarding CSA and revictimization. Thus, community samples are desired because they increase the generalization of findings. Several studies that examine the occurrence of

revictimization with community samples are available.

The relationship between CSA, revictimization and adolescent sexual behaviors was examined by Fergusson, Horwood and Lynskey (1997) in a longitudinal study of 520 young women in New Zealand. These women were studied at regular intervals from birth to the age of 18. At the age of 18 retrospective reports of CSA were obtained from participants. Information regarding CSA was obtained in interviews. Subjects were asked whether anyone had attempted to involve them in a range of sexual activities before the age of 16 years when they did not want this to happen. On the basis of the interview, subjects were assigned to one of four groups reflecting severity of exposure to CSA: (1) No CSA history, 82.7%; (2) Noncontact CSA, 4.2%; (3) Contact CSA, including sexual fondling, genital touching, and attempts to undress respondent, 7.5%; and (4) CSA involving attempted or completed vaginal, oral, or anal intercourse, 5.6%.

At age 18 years, participants were also questioned on their experiences of sexual assault subsequent to the age of 16 years. A total of 4% of participants reported being raped or being a victim of attempted rape, while 6.4% reported a sexual assault. The relationship between CSA and adult sexual assault was examined. Fergusson and colleagues (1997) found that women who reported CSA involving attempted or completed intercourse had the highest rates of sexual victimization after the age of 16, including both sexual assault and reports of rape or attempted rape. Women who reported noncontact CSA had outcomes that were similar to those who reported no history of CSA, while those who reported contact CSA not involving

intercourse had outcomes that were intermediate between those not reporting CSA and those reporting CSA involving intercourse. Specifically, 20.7% of women with a history of intercourse CSA reported rape or attempted rape, as compared to 10.3% of women with contact CSA, 4.5% of women with noncontact CSA, and 2.3% of nonvictims. Similarly, 20.7% of women with a history of intercourse CSA reported sexual assault, as compared to 12.8% of women with contact CSA, 9.1% of women with noncontact CSA, and 4.7% of nonvictims. Women who had experienced intercourse CSA were 11 times more likely to experience rape or attempted rape and 5.3 times more likely to experience sexual assault as compared to nonvictims. Women who had experienced contact CSA were 4.8 times more likely to experience rape or attempted rape and three times more likely to experience sexual assault as compared to nonvictims.

Russell (1986) found evidence of revictimization in her community sample of 930 San Franciscan women. The sample was compiled using a cluster sampling technique of households from the San Francisco telephone directory. Russell conducted interviews to assess contact abuse experiences prior to age 14 and completed or attempted rape by a nonrelative after age 14. Given this definition, 12% of participants experienced incest before age 14 and 20% reported sexual abuse by a non-relative before age 14. Russell found that 65% of the incest victims were victimized after age 14 by rape or attempted rape, not counting incestuous rape, as compared to 61% of women with a history of extrafamilial abuse, and 35% of women with no history of CSA.

Russell also specifically assessed revictimization in the form of marital rape. In her sample, 19% of incest victims reported having ever been raped by their spouse during marriage as compared to only 7% of women without a history of CSA. Russell further assessed such rapes among those who were married at the time of the study. Among this group of women, 27% of incest victims were raped by their current husbands, in contrast to 11% of women who did not experience incest.

Gorcey, Santiago, and McCall-Perez (1986), investigating the psychological consequences of CSA using both a community and clinical sample, also found evidence of revictimization. Subjects were recruited through public advertisements and letters sent to mental health agencies and private therapists. Forty-one respondents reported CSA. A control group was comprised of 56 women who did not experience CSA. CSA was not specifically defined, but information obtained from an interview included responses of contact abuse before age 14 only. Adult sexual assault criteria were not provided. Gorcey and colleagues found that 37% of women sexually abused in childhood were later raped as teenagers or adults. The authors felt that this indicated that a significant number of women experience multiple incidents of sexual victimization, although they did not report prevalence rates, a control group or a test for statistical significance.

Wyatt, Guthrie and Notgrass (1992) specifically investigated the effects of CSA and subsequent revictimization using a multi-stage stratified probability sampling method to sample 248 African-American and Caucasian women 18 to 36 years of age in Los Angeles county. Each participant was interviewed face to face using the Wyatt

Sexual History Questionnaire. CSA was defined as sexual body contact and noncontact (i.e., exhibitionism) experiences before age 18. In addition, the perpetrator had to be more than five years older than the subject. If the age difference was less than five years, only incidents that were not desired or that involved coercion were included. This definition is similar to that used by Finkelhor (1979). Approximately 62% of women reported a history of CSA; 45% reported contact abuse, while 16.9% reported noncontact abuse. In addition, 35.1% of women reported sexual assault in adulthood, of which 22.2% reported contact experiences, while 12.9% reported noncontact experiences. Revictimization was defined as at least one incident of sexual abuse in both childhood and adulthood. Comparing the sexual abuse categories in childhood and adulthood (not abused, noncontact, and contact), Wyatt and her colleagues found that 65 of 161 women (40%) met the criteria for revictimization. Specifically, women who were sexually abused during childhood were 2.4 times more likely to be revictimized as adults, as compared to women who did not experience such abuse.

Randall and Haskell (1995) investigated sexual violence in the lives of 420 community women. A random sample of a large urban city resulted in a response rate of 74%. Information was obtained in in-depth, face-to-face interviews and included questions regarding experiences defined as sexually threatening, intrusive, or assaultive. CSA was categorized as incestuous or extrafamilial, depending on the relationship to the perpetrator. Incestuous abuse included any kind of sexual contact or attempted sexual contact that occurred between relatives, no matter how distant the

relationship, before the girl turned 16 years old. Extrafamilial CSA was defined more narrowly by excluding some forms of actual physical contact (e.g., unwanted sexual kissing, hugging, or touch to the body other than on the breasts or genitals) as well as noncontact experiences such as unwanted sexual propositions, exhibitionism, etc. Extrafamilial abuse involved unwanted sexual experiences with a person unrelated by blood or marriage, ranging from sexual touching (of breasts or genitals, or attempts at such touching) to forced or attempted forced sexual intercourse before the girl reached 16 years of age. Excluded from this definition were cases of consensual peer sexual contact (defined as taking place between persons of the same age or of no more than three years difference) if these experiences were defined by the respondent as wanted. Approximately 17% of women reported at least one experience of incestuous abuse, and 34% reported at least one experience of extrafamilial abuse. Overall, 42.4% reported at least one experience of incestuous and/or extrafamilial sexual abuse before 16 years old.

Sexual assault was broadly defined as ranging from any unwanted sexual touch of the body (including sexual touching of breasts or genitals) to forced sexual intercourse. With a broad definition, 66.9% of women reported at least one experience of unwanted sexual contact at or after 16 years of age. Restricting the definition to only completed sexual assault, 40% of women reported at least one experience of forced intercourse in adulthood. Thirty-one percent of women reported at least one experience of attempted rape in adulthood. Combining rates from childhood and adulthood, approximately 55.7% of the participants had experienced

forced sexual intercourse or attempted rape at some point in their lives.

Examination of victimization patterns revealed that more than one quarter (26.4%) of the women interviewed had an experience of sexual assault in childhood as well as in adulthood (16 years of age or older). Only 16.9% of the women had an experience of sexual assault in childhood and no later experiences of sexual victimization. Moreover, 9.3% of the sample reported at least one experience of all three major forms of violence: sexual abuse in childhood, sexual assault in adulthood, and physical assault in an intimate relationship. Adult victimization rates for women with and without CSA experiences were not compared.

Summary. As with other samples, the majority of studies investigating community samples has found evidence of revictimization. Although this research with community samples has many advantages with regard to generalization, some limitations are also apparent. Despite attempts made in these studies, the samples obtained may not truly be representative of the population. Samples contain primarily young, Caucasian females. Further, the number of women interviewed in most studies is relatively small.

Clinical Samples. Clinical samples are important in that they assess participants who may function at a different level from individuals in a college or community sample. Within this population, several studies have investigated revictimization with samples comprised of both CSA victims as well as a comparison nonabused group.

Miller, Moeller, Kaufman, Divasto, Pathak, and Christy (1978) found some

evidence of greater adult victimization among women with a history of abuse. Conducted at the University of New Mexico School of Medicine, the study involved experiences of women who were interviewed by a Sexual Assault Response Team. Team members saw 341 victims of sexual assault, ranging in age from 24 to 33 years of age, 82 (24%) of whom were repeat victims of sexual assault.

In comparing women who had been raped on more than one occasion with those who were reporting a first-time rape, researchers found that 18% (15/82) of repeat victims had incest histories, compared with only 4% of the first-time adult victims. In total, Miller et al. report that 24% of their sample experienced repeated victimization. Because subjects were recruited only from a crisis setting, Miller and her colleagues state that it is likely that the proportion of women with multiple sexual assault experiences is even higher than the 24% evident in their survey. It is speculated that many victims of sexual abuse do not seek help; thus, prevalence rates obtained from crisis settings may underrepresent true rates.

Unfortunately, Miller et al. do not provide information either on what restrictions were placed on adult assault or on how childhood experiences were assessed. Related, prevalence rates for CSA were not reported. Further, the proportion of women that they describe as revictimized appears to include some repeat experiences that are not child to adult, but rather two adulthood victimization experiences. It is unclear what percentage of women, therefore, has actually been revictimized in the form considered here.

Shields and Hanneke (1988) also provide evidence that CSA and marital rape

(and battery) may be related. In a study of 137 women recruited from shelters, social service agencies, and court records, standardized interviews were conducted to assess sexual violence and nonsexual violence. Sexual violence included moderate or severe contact and noncontact violence that had occurred on two or more occasions under the threat of physical force or actual force. Nonsexual violence included such activities as kicking, hitting, and shooting, and was required to have occurred on two or more occasions. Women having experienced nonsexual violence but not sexual violence in their most recent marital or cohabitating relationship were classified as battered only (35%). Women who had experienced both sexual and nonsexual violence in their most recent relationship were classified into a rape and battery group (32.1%), while women without either experience were classified as nonvictims (32.8%). These authors identified very few women experiencing only sexual violence and therefore excluded this group from further consideration.

In this study, CSA was assessed with two questions. Incestuous abuse during childhood was assessed with one question asking if a parent or guardian, or other relative, had ever had any kind of sexual contact with the respondent when the woman was 1 year old or older. Extrafamilial sexual abuse was assessed with a question asking if the respondent had any sexual contact with an adult non-family member at 16 years of age or younger. Prevalence rates of CSA were not reported. Analyses were conducted to examine the prevalence of CSA across the battered only, rape and battery, and nonvictim groups. Results suggested that victims of rape and battery were more likely than nonvictims and the battered only women to have had

sexual contact with a family member as a child. Fifty percent of the raped and battered women reported incestuous experiences as compared to 33% of the battered women and 22% of the nonvictims. No differences were found with regard to childhood sexual experiences with non-family members.

Briere and Runtz (1987) investigated post sexual abuse trauma with a sample of 152 consecutive women requesting appointments at a crisis counseling department of a community health center. Sexual abuse was operationally defined as any self-reported sexual contact (e.g., fondling to intercourse) experienced by a client before the age of 15, initiated by someone five or more years her senior. Given this definition, 44.1% of women reported experiences of CSA. Findings revealed that former sexual abuse victims were more frequently revictimized in an adult relationship (17.7%) as compared to former nonvictims (8.3%).

Allers and Benjack (1991) examined the incidence of childhood sexual and physical abuse in a sample of 52 HIV-infected adults. Forty-five participants were male, seven were female. A semi-structured research interview was designed to assess history of childhood abuse as well as alcohol or other drug abuse. The definition of sexual abuse was similar to that used by Bass and Davis (1988). Sexual abuse was defined as one or more of the following events during which the perpetrator was at least five years older than the individual: touched or rubbed in sexual areas, forced or manipulated into watching pornographic movies or listening to seductive, graphic sexual talk; fondled, kissed, or held in a way that made them feel uncomfortable; forced to watch sexual acts or look at adult genitalia; bathed in a way

that felt intrusive; forced to pose for sexual or seductive photographs; forced to participate in sexual activities (i.e., oral, vaginal, or anal intercourse). Approximately 65% of the participants reported a history of sexual abuse, all of whom also reported childhood physical abuse. Of participants who reported sexual abuse, 82% indicated a revictimizing relationship (either adult sexual or physical abuse), compared to 33% of participants with no child abuse history.

Cloitre, Tardiff, Marzuk, Leon, and Portera (1996) investigated the relationship between childhood abuse and subsequent sexual assault among 409 female psychiatric inpatients. Information regarding abuse history was obtained through a clinical interviews developed by the authors. CSA was defined as sexual body contact ranging from fondling to oral/anal/vaginal penetration prior to age 16 by someone of any age or relationship to the subject. The specific assessment question was: Have you ever been sexually abused as a child (before the age of 16)? Information was obtained regarding the nature of the abuse and other specific information. Adult sexual assault was defined as rape or attempted rape occurring after the age of 16. The specific question was: Have you ever been the victim of rape or attempted rape after the age of 16? To assess the relationship between childhood abuse and sexual assault, the sample was divided into two groups: (1) women with a history of at least one adult sexual assault (n=90), and (2) those with no history of assault (n=319). Approximately 22% reported at least one adult sexual assault experience. Forty-five percent reported some form of childhood abuse (15% physical abuse only, 12% sexual abuse only, 19% both). Women with an adult sexual assault were more likely

than women without adult assault to have a history of childhood abuse (39% compared to 69%). A relationship was found between adult sexual assault and specific type of childhood abuse. Rates of adult sexual assault were higher for women with a history of physical abuse alone (36%) or both physical and sexual abuse (51%) than among women with a history of sexual abuse alone (13%). Hierarchical logistic regression revealed that a history of physical and/or sexual assault was associated with a three-fold increase in risk for adult sexual assault.

Other studies with clinical samples of victims have not included a control group. deYoung (1982) found in a sample of 48 incest victims, 14 (28%) had also been sexually victimized as adults. Unfortunately, in addition to these experiences, many of these women had also been victimized as children by some person other than the offending father or step-father. Thus, not only were victims revictimized as children (by multiple perpetrators) but again as adults.

Herman and Hirschman (1977) reported that in their sample of 15 women who were childhood incest victims, three of these women (20%) were also rape victims. In this study, sexual abuse was defined as ranging from sexual contact to fondling and intercourse. All of the women were clients in psychotherapy, and all were Caucasian. In a separate report, Herman and Hirschman (1981) found that six of forty incest victims interviewed had also reported being raped. Three had been raped more than once. In some cases, the increased risk for rape could be traced to the incestuous situation. For instance, two women had been raped during run-away episodes, when they were wandering the streets.

Summary. Overall, results from these clinical samples support those found with college samples, as most of the studies reviewed here provide evidence of the phenomenon of revictimization. However, conclusions obtained from clinical samples are limited due to small sample sizes. In addition, one may speculate that women with clinical samples differ from women in the general population, perhaps exhibiting greater levels of distress and pathology; this factor limits the generalizability of clinical samples. Finally, many of the clinical studies reviewed here failed to utilize standard statistical analysis, thus statistical significance is unknown regarding many of the previously discussed findings.

College Samples. A number of studies investigating CSA using samples of college women are available regarding the phenomenon of revictimization. However, few were designed especially to examine revictimization. In a study specifically investigating the relationship between CSA and subsequent adult victimization, Messman-Moore and Long (1997) examined the relationship between CSA and adult sexual assault in a sample of 638 college women. Information regarding victimization experiences was obtained with questionnaires. CSA was defined as contact abuse only (excluding noncontact experiences such as exhibitionism) perpetrated by a relative, or another individual greater than five years older than the victim, or if less than a five year age difference, threat or force was involved, or the participant self-labeled the experience as abuse. Adult sexual assault was investigated with a modified version of the Sexual Experiences Survey (SES; Koss & Gidycz, 1985; Koss & Oros, 1982). Messman-Moore and Long (1997) found that 20.7% of women

reported experiences of CSA. Over half (53.6%) of the women reported experiences of adult sexual assault, and 27.4% of the women reported unwanted sexual intercourse in adulthood. When rates of adult victimization were compared for CSA victims and nonvictims, results revealed that CSA victims (34.9%) were more likely to experience unwanted sexual intercourse than nonvictims (25.5%). In addition, women with a history of CSA were more likely than nonvictims to experience unwanted sexual intercourse because they were unable to consent to the sexual activity due to alcohol or drug use; this was true for unwanted sexual intercourse with both husbands and strangers.

The relationship between abuse in childhood (including verbal, physical and sexual abuse), and abusive dating relationships was examined by Sappington, Pharr, Tunstall and Rickert (1997) using a sample of 133 female undergraduates. Child abuse was assessed by a questionnaire designed for the present study. Subjects were asked to indicate whether or not they had experienced verbal, physical or sexual abuse as a child, and whether they had ever been verbally, physically or sexually abused by a date. Approximately 49% reported some form of abuse as a child, with 21% reporting verbal abuse, 6% reporting physical abuse and 26% reporting sexual abuse (7% by parents, 19% by other individuals). In addition, approximately 33% reported some form of abuse by a date, with 32% reporting verbal abuse, 14% reported physical abuse, and 19% reporting forced sex. An examination of group differences revealed that women with a history of abuse were more likely to have experienced forced sex on a date than women with no abuse history. This was true for any form

of child abuse: physical abuse, verbal abuse, and sexual abuse with a parent or other individual.

Fischer (1992) investigated the relationship between cognitive variables and victimization experiences with 486 female college students. Information was obtained with questionnaires, and CSA status was assessed with the question: When you were a child, (that is, before puberty), did anyone at least 4 or 5 years older than you initiate or do anything sexual with you? If respondents answered affirmatively, more specific questions followed. Experiences were considered CSA if the age difference was greater than four years, and if the use of force was described. With this definition, 17% of the college women reported a history of CSA. A second set of questions were asked about abuse during teenage years: When you were a teenager or adult, did anyone initiate or do anything sexual with you without your wanting to or without your consent? Given this, 35% of women reported sexual abuse as a teen or adult. Results revealed that CSA victims were more likely to report abuse as a teenager or adult, as 55% of CSA victims compared to 31% of nonvictims reported sexual abuse as a teen or adult. In addition, a logistic model regressed CSA and other variables on adult sexual abuse. Again, CSA was found to be a predictor of teenage or adult sexual assault.

Runtz (1987) surveyed 291 college women to determine the incidence and impact of CSA, child physical abuse, sexual assault and battery, and to specifically explore revictimization. Runtz utilized the sexual victimization survey developed by Finkelhor (1979) for assessment of child victimization and employed a definition of

abuse similar to Russell's (1984), which included experiences prior to age 15, with a person at least five years older. A modified version of the Sexual Experiences Survey (SES; Koss & Gidycz, 1985; Koss & Oros, 1982) was used to assess adult sexual victimization. Runtz found that 25% of women surveyed were victims of sexual abuse and 28.9% were victims of physical abuse in childhood. In addition, 26.1% of women reported experiences of adult sexual assault. When child and adult experiences were examined together, 13.4% of participants reported a history of CSA as well as sexual assault or battery in adulthood. Results of canonical correlations suggest that of the two child abuse variables, (sexual and physical abuse), only CSA appeared to be related to revictimization. In particular, its strongest association was with later sexual assault (as compared to physical battery). In total, 13% of all the women included in the study experienced both CSA and either adult sexual assault or battery. While results here do point to a relationship between CSA and later assault, battery and sexual assault are investigated concurrently, thus limiting the ability to draw conclusions regarding sexual assault alone.

Fromuth (1983) also investigated the relationship between a history of CSA and later nonconsensual experiences in a survey of 482 women. Fromuth used Finkelhor's (1979) definition of CSA as did Runtz, but merely asked women to indicate if they had ever been raped. Fromuth found that approximately 22% of the women reported a history of CSA. Prevalence rates of adult sexual assault and rates of revictimization were not reported. A relationship was found between a history of CSA and rape: more women who experienced CSA later experienced a rape as

compared to women who had no history of CSA. A significant weakness of the Fromuth study is that subjects were not completely "blind" to the purpose of the study. At the time they were recruited, women were informed that the study explored the effects of childhood sexual experiences on current overall and sexual adjustment. Because of this manner of subject recruitment, women who participated could be doing so expressly because they had abuse experiences, resulting in a sample that could be composed primarily of women experiencing multiple sexual abuse experiences.

In a study that concentrated on the long-term consequences associated with CSA, Alexander and Lupfer (1987) report results similar to those of Fromuth (1983). In this sample of 586 women, subjects were asked to describe a situation in which they have been fondled or touched by a family member or older adult in a way that made them feel uncomfortable. This method of assessment, while differing from Finkelhor's (1979) and others, resulted in prevalence rates similar to those found by other researchers. Twenty-five percent of women reported CSA experiences; 16% reported intrafamilial abuse experiences, and 10% reported extrafamilial experiences. No description of how adult victimization was assessed, or the age criterion used to differentiate child versus adult experiences, is specified by Alexander and Lupfer. Results indicate that there is a higher rate of subsequent sexual assault among women who had been sexually abused as children as compared to women who had not been abused. However, prevalence rates and statistical information regarding this comparison are not provided. Nevertheless, on the basis of this comparison the

authors conclude that one long-term consequence of CSA is an increased vulnerability to subsequent assault.

In an effort to differentiate between risk factors for sexual victimization, Koss and Dinero (1989) conducted a national survey of 3,187 college women using a stratified sampling approach to create a representative sample. Information regarding CSA occurring before age 14 was obtained from Finkelhor's (1979) questionnaire, however prevalence rates of CSA were not reported. The SES was used to assess attempted and completed intercourse occurring after the age of 14. Given this, 15.4% of women reported rape, 12.1% reported attempted rape, 11.9% reported sexual coercion (sexual intercourse without threat or use of physical force), and 14.4% reported sexual contact. Their results indicated that of the women who reported attempted rape or rape (n=685), 66% reported childhood sexual experiences which included both contact and noncontact experiences. In addition, 13% of these women experienced attempted or completed childhood intercourse. Of the nonvictimized women (n=1,183), only 20% reported childhood sexual experiences, and only 3% reported attempted or completed childhood sexual intercourse. It was not reported if these results are statistically significant, although CSA had the third largest correlation (.54) as a risk factor examined for adult sexual victimization.

A retrospective study of both men and women by Stevenson and Gajarsky (1991) also investigated the relationship between unwanted childhood sexual contact and subsequent victimization in 93 male and 116 female college students. An analysis was conducted to determine if individuals who had unwanted childhood sexual

experiences were more vulnerable to revictimization as adults than individuals with no CSA history. CSA experiences were investigated by items drawn from Finkelhor's (1979) questionnaire and included contact and noncontact experiences done to the child prior to his/her 16th birthday against the child's will by someone at least five years older than the child. Sexual coercion with threats or actual force occurring after the child's 16th birthday was assessed with the SES (Koss & Gidcyz, 1985; Koss & Oros, 1982). Results revealed that for both men and women, individuals with a CSA experience were more vulnerable to revictimization as adults than individuals who had not experienced CSA. Of the females who had unwanted childhood sexual experiences, 72.3% also reported an unwanted sexual experience as an adult.

In a study of 857 women conducted by Gidycz, Coble, Latham, and Layman (1993), some prospective data collection of sexual assault was undertaken in an attempt to extend previous work using retrospective data. Gidycz and her colleagues retrospectively surveyed women regarding their histories of CSA prior to age 14 utilizing Finkelhor's (1979) questionnaire. Of the participants, 15.6% reported exhibitionism, 27.7% reported fondling, 3.3% reported attempted rape, and 7.3% reported rape in childhood. The SES was used to assess victimization experiences between age 14 and the time of women's participation in the study (this was labeled adolescent victimization). Approximately nine weeks later, women re-completed the SES to report on sexual victimization that had occurred since the previous assessment (this was labeled adult victimization). Approximately 14% of women reported rape as an adult, 12.5% reported attempted rape, 11.1% reported sexual coercion (unwanted

sexual intercourse not involving threat or use of force), and 12.7% reported sexual contact. Path analysis was then conducted to investigate the relationships between victimization experiences and revealed that a sexual victimization experience early in life was a risk factor for later adolescent and adult victimization experiences.

More specifically, the first analysis assessed whether an adolescent victimization experience was dependent upon a child victimization experience. This analysis revealed that 69.9% of childhood rape victims and 78.6% of the childhood attempted rape victims were revictimized in some manner (this could include sexual contact, sexual coercion, attempted rape or rape) in adolescence; and 28.6% of the childhood attempted rape victims and 29.5% of the childhood rape victims experienced a rape in adolescence. For those not victimized in childhood, substantially fewer women (39.4%) were victimized in adolescence, and only 8.8% experienced a rape.

A subsequent analysis was conducted to assess whether adult victimization experience was related to a history of CSA, and found that women who experienced a rape or an attempted rape in childhood were more likely than child nonvictims to be revictimized in some manner in adulthood. Specifically, 29.5% of the child rape victims and 32.1% of the child attempted rape victims were revictimized in adulthood, whereas only 13.6% of the child nonvictims were victimized in adulthood.

A final analysis was conducted to assess whether an adulthood victimization experience was dependent upon an adolescent sexual assault. Results revealed that 31.4% of the adolescent attempted rape victims and 33% of the adolescent rape

victims were revictimized in adulthood, while only 9.4% of the women without a history of adolescent victimization experiences were victimized in adulthood. Particularly noteworthy is the finding that 10.5% of the adolescent attempted rape victims and 10.4% of the adolescent rape victims were raped in adulthood, whereas less than 1% of the women who did not experience rape or attempted rape as an adolescent were raped in adulthood. These are strong findings, especially if one takes into consideration the fact that this prospective design is unique in that sexual abuse history variables were assessed prior to the victims' most recent adult sexual victimization experiences. In addition, results of these analyses support the results of previous retrospective analyses, suggesting that a history of sexual victimization is a risk factor for subsequent victimization.

A study by Gidycz, Hanson and Layman (1995) was conducted to extend findings of Gidycz et al. (1993). College women were evaluated for child and adolescent sexual victimization, alcohol use, and other variables. Women were re-evaluated at three, five-six, and nine months for adult victimization, psychological adjustment and other variables. The majority of participants were Caucasian and between the ages of 18 and 19 years old. Childhood sexual abuse prior to age 14 was screened using questions developed by Finkelhor (1979). Experiences that occurred after age 14, but prior to the time of the investigation were considered adolescent sexual victimization. Based upon responses, participants were categorized according to the most severe item they endorsed: (0) No childhood victimization, (1) Moderate childhood victimization, including fondling or exposure of sexual organs, or (2)

Severe childhood victimization, including rape or attempted rape. Approximately 12% reported severe childhood victimization, 47% reported moderate victimization and 41% reported no childhood victimization. Adolescent sexual victimization (after age 14 but prior to the present study) was screen with the Sexual Experiences Survey (SES, Koss & Oros, 1982). Based upon responses, participants were categorized according to the highest numbered item which they endorsed: (0) No adolescent victimization, (1) Moderate adolescent victimization, including fondling or kissing, or sexual intercourse subsequent to use of verbal coercion, or (2) Severe adolescent victimization, including rape or attempted rape. Thirty-three percent of women reported severe adolescent victimization, 26% reported moderate adolescent victimization, and 41% reported no adolescent victimization.

Information regarding child and adolescent victimization were combined to form a victimization history variable. Results indicated that chances of being victimized in one time period increased with greater severity of victimization in the preceding time period. For example, among women without a history of victimization, 32.4% were victimized at three-month follow-up; among women with a history of moderation victimization, 47.9% were victimized at three-month follow-up; and among women with a history of severe victimization, 62.3% were victimized at three-month follow-up. A similar pattern was found for the second follow-up assessment (six months). Revictimization rates were also analyzed at nine-month follow-up, and again revealed that a woman's chance of victimization increased as a function of victimization in the preceding time period. Path analysis revealed that

victimization in childhood (before age 14) was correlated with adolescent victimization (r=.27), and victimization at six-months follow-up (r=.16). Adolescent victimization (after age 14) was correlated with adult victimization at three-months (r=.37), six-months (r=.23), and nine-months (r=.33).

Urquiza and Goodlin-Jones (1994) examined the phenomenon of revictimization with a particular focus on ethnic and cultural backgrounds among 243 community college women. Childhood sexual abuse was assessed by a telephone or face-to-face interview using the Wyatt Sexual History Questionnaire-Revised (WSHQ-R; Wyatt, 1992). CSA was operationally defined as physical contact of a sexual nature while 12 years or younger and the perpetrator was at least five years older than the respondent. CSA was considered to be present if the victim had experienced this kind of contact between the ages of 13 to 17 years and the perpetrator was a family member or relative of the respondent. Sexual contact between the ages of 13 and 17 were not considered if activities took place outside of the family. The Sexual Experiences Survey (SES; Koss & Gidycz, 1985; Koss & Oros, 1982) was used to obtain information regarding adult sexual assault, and concerned only unwanted sexual conduct with another person when the offender uses or threatens to use physical force.

A total of 34.2% respondents reported a history of CSA. Approximately 23.5% of the women reported rape. A difference was found between rape victims and nonvictims for the experience of CSA, such that 64.9% of raped women reported CSA, compared to 35.1% of nonassaulted women. The relationship between CSA

and revictimization was also examined while considered ethnic membership. Urquiza and Goodlin-Jones (1994) found that for European-American, African-American and Latina women, those with a history of CSA were more likely to report rape victimization than those who did not experience CSA. However, this relationship was not significant for Asian-American women.

Although there is generally strong evidence among college samples that revictimization is associated with CSA, one study was located that does not provide support. Mandoki and Burkhart (1989), in their survey of 282 women, failed to find evidence of revictimization. In their sample, 6% reported sexual victimization both as a child and later as an adult. Statistical analysis revealed that subjects who were victimized as children were not more likely than nonvictimized subjects to be sexually assaulted as adults. Mandoki and Burkhart state than an analysis of the base rates of victimization in their sample suggest that being victimized as a child and as an adult occurred at a frequency predicted by the joint probability of the base rates. However, findings of this study may be unique to their methodology. Mandoki and Burkhart employed the SES (Koss & Gidcyz, 1985; Koss & Oros, 1982) to assess for experiences prior to age 14. This resulted in a CSA prevalence rate of only 7%. This identification rate is much lower than that found by most researchers. In addition, these authors assessed only for attempted and completed rape in adulthood, thus limiting the number of experiences which could be considered revictimization.

Summary. Most studies utilizing a college sample find evidence of revictimization. Of the eleven studies reviewed here, only one failed to find evidence

of revictimization. There are, however, limitations that result from the use of a college sample. One disadvantage of using a college sample that is relevant specifically to the study of revictimization is the young age of the respondents. Most college students in the described studies were between 18 and 20 years of age, which only gives a short amount of time for revictimization to have occurred. Thus, conclusions from college samples may underrepresent the actual prevalence of revictimization in the general population. In addition, college women must be somewhat well-adjusted in order to function adequately in their environment, and these women tend to be of higher socioeconomic status than women who do not attend college, factors which may differentiate college women from women in the general population. Thus, use of college samples limits generalization to more general populations.

Conclusion: Revictimization as sexual assault. Clearly, studies across all three populations examined here provide evidence for the existence of revictimization. Results overall suggest that between 16% and 72% of women who experiences CSA are likely to be revictimized later in life. Although different sample types have their own advantages and disadvantages, the studies reviewed here do have some limitations in common. For instance, of the studies discussed, the participants are predominantly White, single, middle-class, educated, and between the ages of 18 and 30. Of studies that included minorities, usually only the African American population was adequately represented, with low to nonexistent representation of Asian Americans, Hispanics, Native Americans, or other minorities.

In addition to those weaknesses, many of these studies suffer from other methodological problems. These problems may be as simple as neglecting statistical comparisons between CSA victims and nonvictims (e.g., Alexander & Lupfer, 1987; Briere & Runtz, 1987), omitting statistical information regarding such comparisons (e.g., Koss & Dinero, 1989), or even lack of a comparison group for such comparisons (e.g., deYoung, 1982; Herman & Hirschman, 1977, 1981). Many studies also fail to report prevalence rates of child or adult sexual abuse (e.g., Alexander & Lupfer, 1987; Briere & Runtz, 1987; Fromuth, 1983).

Different methods for assessing CSA and adult sexual assault contribute to the range in prevalence rates of revictimization, and make comparison of studies difficult. In fact, some studies do not specify how assessment of adult or child sexual abuse is conducted (e.g., Alexander & Lupfer, 1987; Mandoki & Burkhart, 1989), or how such abuse is defined (e.g., Alexander & Lupfer, 1987). Methods of assessing abuse experiences are important, as previous research has shown that methods of inquiring about such experiences influence prevalence rates (Koss, 1993). For instance, it is recognized in the literature that one does not ask an individual if she has been abused, as many victims of CSA, adult rape or battery do *not* consider themselves victims. Rather, a preferred method is to ask whether certain experiences occurred or not, and allow the investigators to label such experiences as abuse. Thus, although many studies may use definitions of CSA that are consistent with other researchers in the area, use of questions including phrases such as "abuse" or "victim" may result in an underestimate of prevalence rates (e.g., Cloitre et al., 1996; Sappington et al., 1997).

Other methodological problems include methods of recruiting subjects and response rates. During recruitment Fromuth (1983) informed potential participants of the information requested (about sexual experiences) which may bias participation rates. Other studies are plagued by poor survey response rates such as 54.3% (Stevenson and Gajarsky, 1991) which may also result in a biased sample. Some findings regarding revictimization are unclear because samples have included both male and female participants (e.g., Allers & Benjack, 1991; Stevenson & Gajarsky, 1991), and results were not presented separately by gender, thus it is unknown whether such relationships would remain if only women were considered.

Finally, many of the above studies suffer from common weaknesses such as a small sample size (e.g., Allers & Benjack, 1991; Briere & Runtz, 1987; deYoung, 1982; Gorcey et al., 1986; Herman & Hirschman, 1977, 1981; Runtz, 1987; Sappington et al., 1997; Shields & Hanneke, 1988), and retrospective reporting of CSA. Retrospective reporting of CSA was found in most studies, and only two included prospective reporting of adult sexual assault (Gidcyz et al., 1993, 1995).

Child Sexual Abuse and Alcohol Use and Abuse

CSA and Alcohol Use and Abuse Theory

The association between CSA and substance abuse has been found in the empirical literature of CSA, and several theories have been proposed as well which may help explain this relationship. Use of alcohol and other drugs by CSA victims may help alleviate the distress associated with victimization experiences such as CSA and rape. Dansky, Brady and Roberts (1994) discuss the theory of self-medication as

an explanation for alcohol and drug use in individuals with Post Traumatic Stress Disorder. This model may be applicable given that many CSA survivors suffer from symptoms of PTSD. It has been proposed that substance use may help alleviate some of the problems associated with PTSD including sleep disturbances and cognitive intrusions. In fact, evidence has been found that alcohol consumption will increase following the experience of uncontrolled stress (Volpicelli, 1987). Volpicelli suggests that alcohol consumption can serve to alleviate the decreased endorphin level that results from a traumatic experience. Khantzian (1985) also discusses the possibility that patients with PTSD may begin to or continue to abuse alcohol in an attempt to self-medicate their PTSD symptoms. This self-medication notion of drug abuse proposes that individuals who are susceptible to certain aversive states, such as anxiety, are at a high risk of abusing substances capable of reducing these aversive states.

Many researchers have conceptualized substance abuse by CSA survivors as a form of avoidance (e.g., Briere, 1992; Briere & Runtz, 1993; Follette, 1994; Polusny & Follette, 1995; Root, 1989). Use of alcohol may help victims to numb negative feelings associated with CSA or to forget the abuse experience. Because the empirical literature has demonstrated that CSA can result in many negative affective responses for its victims, the desire to avoid emotions such as guilt, shame, fear and anger could be anticipated. Briere and Runtz (1991) have stated that "avoidant behavior among victims of sexual abuse may be seen as attempts to cope with the trauma and dysphoria induced by victimization" (p. 7).

Polusny and Follette (1995) have applied a theory of emotional avoidance to substance use by abuse victims. This theory of emotional avoidance, based on a model developed by Hayes (1987), suggests that behavioral strategies are used to temporarily avoid or alleviate negative abuse-related internal experiences (Follette, 1994). Emotional avoidance involves the unwillingness to experience unpleasant internal events such as thoughts, memories, and affective states associated with an abuse history, and subsequent attempts to reduce, numb, or alleviate these negatively self-evaluated internal experiences. This theoretical model suggests that emotional avoidance behaviors are negatively reinforced by the reduction or suppression of the intense affective responses associated with the abuse experience. Research findings by Leitenberg, Greenwald, and Cado (1992) indicate that emotional suppression and denial were the most common strategies used by sexual abuse victims in dealing with their abuse histories during adulthood. Within this model, substance abuse (Briere & Runtz, 1991, 1993; Root, 1989; Young, 1990) can be conceptualized as a behavioral form of emotional avoidance.

Previous research has also suggested that substance abuse in trauma survivors may represent attempts at avoidance of the abuse-specific memories and affective responses characteristic of PTSD (e.g., Briere & Runtz, 1991, 1993; Follette, 1994; Rodriguez et al., 1992; Root, 1989; Young, 1990). Briere and Runtz (1987) suggested that alcohol and drug intoxication function as forms of "chemically induced dissociation, invoked as a chronic coping response to aversive affects, memories, and situations" (p. 374). This hypothesis is consistent with findings in the adolescent

substance abuse literature that sexually abused females were more likely than nonabused peers to report the "avoidance of family problems" as a reason for their substance use (Harrison et al., 1989).

Conceptualizing substance abuse as a form of emotional avoidance has important implications for understanding the compulsive high-risk sexual behavior seen in some CSA victims. Briere (1992) has posited that individuals with a history of CSA may use drugs and alcohol while engaging in sexual activities in order to avoid intrusive or unpleasant affect and memories related to the abuse experience. However, because substance use impairs judgment regarding decisions to engage in sexual experiences as well as safe sexual practices, as stated previously, these women may become at higher risk for subsequent assault.

Review of Empirical Literature

The relationship between CSA and substance abuse problems has been investigated by researchers in both the areas of CSA and substance abuse. Studies have included community, clinical and college samples, as well as samples from specific groups such as Alcoholics Anonymous. All studies reviewed include only female participants unless otherwise stated. Findings of these studies as well as description of methodology follow.

Community Samples. Mullen, Martin, Anderson, Romans, and Herbison (1996) conducted a community study of 497 women to examine the long-term impact of physical, emotional, and sexual abuse in childhood. CSA was initially assessed with a questionnaire and later assessed with an interview by a series of direct

questions about unwanted sexual advances prior to the age of 16 years. Information regarding noncontact abuse as well as contact abuse was obtained, however, for analyses, only a subgroup who reported penetration or genital contact on 10 or more occasions was included. With this definition, 10.7% of the sample were labeled as sexually abused. The World Health Organization alcohol questionnaire was used to explore hazardous and abusive patterns of alcohol consumption. Hazardous drinking was defined as more than 14 standard drinks (140 gms alcohol) per week. Findings revealed that victims of CSA had a greater chance of drinking at hazardous levels (24.5% versus 9.7%) than nonvictims. In addition, of the three types of childhood abuse, only sexual abuse was associated with heavy drinking.

Silverman, Reinherz, and Giaconia (1996) examined the relationship between childhood and adolescent sexual abuse and psychosocial functioning in early adulthood in a community sample of 375 young adults. As a longitudinal design, participants were interviewed at ages 5, 9, 15, 18 and 21 years. Information regarding sexual abuse was obtained when the participant was 18 years old. Sexual abuse was assessed with an interview, during which the participant was asked: At any time in your life were you sexually abused or forced to have sex without your consent? (before age 16). Given this definition, 12.3% of female participants reported a history of CSA. Alcohol abuse/dependence was examined using the NIMH Diagnostic Interview Schedule (DIS-III-R). Women with a history of CSA were more likely to report alcohol abuse/dependence (43.5% as compared to 7.9%) than nonvictims. A history of physical abuse was not related to alcohol abuse/dependence.

Pederson and Skrondal (1996) examined sexual victimization and alcohol consumption in a sample of 249 Norwegian adolescent girls followed over a six year time span. Information regarding sexual victimization was obtained through questionnaires based on those used by Erickson and Rapkin (1991). All sexual contact between children less than 13 years old and adults more than 17 years old were regarded as assaults, as were all acts occurring in adolescence which included force. Approximately 17% of the girls reported sexual assault at some time: 7% in childhood before age 13, 6% in early adolescence (13-16 years old) and 4% in late adolescence (17-19 years). Generalized structural equation modelling was used to investigate alcohol-related predictors and consequences of sexual assaults. Results revealed that sexual victimization in childhood did not have any effect on alcohol consumption. However, childhood sexual victimization did have a direct effect on alcohol problems. In addition, alcohol consumption before victimization had a significant effect upon victimization although victimization did not affect later alcohol consumption. The authors concluded that a specific link exists between childhood sexual victimization and the development of pathological alcohol use or alcohol problems in young women.

Robin, Chester, Rasmussen, Jaranson and Goldman (1997) examined the prevalence and impact of childhood sexual abuse within a community sample of a Southwestern American Indian tribe. The study included 582 adult men and women, however, only a subset of 375 subjects were administered questions about childhood sexual abuse. Within this subset, 217 participants were female; 49% of these women

reported at least one episode of childhood sexual abuse before the age of 15 years. Information regarding CSA was obtained from clinical interviews. CSA was defined as direct physical sexual contact with a victim prior to the age of 16 by a perpetrator at least five years older than the victim. Peer experiences and sexual abuse not involving direct physical contact were excluded. Questions included asking the respondent about abuse experiences, such as: Were you ever sexually abused as a child before the age of 16 years? Psychiatric diagnoses were made using a modified version of the Schedule for Affective Disorders and Schizophrenia-Lifetime version (SADS-L) for DSM-III-R. Diagnosis for alcohol dependence and abuse were included in this study.

The relationship between CSA and early and later behavioral problems was examined. Robin and colleagues (1997) found that females who were sexually abused were more likely to drink excessively before the age of 15 years, and that these women were 2.6 times more likely to report a greater frequency of drunkenness than nonabused females after the age of 15. CSA survivors were also more likely to be diagnosed with a lifetime alcohol disorder as well as a current alcohol disorder when compared to nonabused women. Specifically, CSA survivors were 2.1 times more likely to have a lifetime history of alcohol disorder, and 2.75 times more likely to report a current alcohol disorder as compared to nonvictims. Approximately 70% of CSA survivors reported a history of alcohol disorder as compared to 52% of nonvictims, and 36% of CSA survivors reported a current alcohol disorder as compared to 17% of nonvictims.

Peters (1988) investigated the long-term consequences of CSA among a community sample of 50 Afro-American and 69 Caucasian women. A two-part structured interview obtained demographic information as well as information regarding alcohol abuse. Questions on alcohol abuse were based on the corresponding sections of the Schedule for Affective Disorders and Schizophrenia, Lifetime version (SADS-L; Endicott & Spitzer, 1979). The definition of CSA was identical to that used by Wyatt (1985). Each incident of sexual abuse must have (1) occurred before the subject was 18 years old; (2) involved intentional and unambiguous sexual behavior of a physical (rather than merely verbal) nature; and (3) involved a perpetrator who either was at least 5 years older than the victim or used some type of coercion to secure her participation. Noncontact incidents where the perpetrator exposed his genitals were included, but noncontact incidents where only a verbal solicitation occurred were excluded. Sexual activity involving contact ranged from fondling to vaginal intercourse. Voluntary sex play with peers during childhood was not considered to be sexual abuse, nor were voluntary sexual relationships with older partners during adolescence.

Of the 119 women in the sample, 71 (60%) reported at least one incident of sexual abuse prior to age 18. Specifically, 54 (46%) of the women reported at least one incident of abuse involving bodily contact, 17 (14%) reported noncontact abuse, and 48 (40%) reported no abuse experiences. No differences were found between the groups regarding demographic variables. Findings revealed that women in the contact group (22%) were more likely than women in either the noncontact (12%) or no

abuse groups (12%) to have abused alcohol.

Burnam, Stein, Golding, Siegel, Sorenson, Forsythe and Telles (1988) examined the relationship between sexual assault and later onset of alcohol abuse or dependence in a cross-sectional community survey of 3,132 men and women. Information regarding alcohol and drug use was obtained using the Diagnostic Interview Schedule (DIS) which utilized DSM-III criteria. Information regarding CSA was also obtained through an interview, where sexual assault was defined as pressured or forced sexual contact. With childhood sexual assault defined as occurring at age 15 or younger, 5.3% of the sample reported at least one assault during childhood.

When the sexually assaulted and nonassaulted groups were compared by Burnam and colleagues (1988), no difference was found for rates of alcohol abuse or dependence (18.4% of the sexually assaulted group reported alcohol abuse or dependence as compared to 13.8% of the nonassaulted group). However, when demographic variables were controlled with a matching procedure, the sexually assaulted were more likely to report a history of alcohol abuse or dependence after their first assault (15.7% of sexually assaulted as compared to 6.8% of nonassaulted) as well as before their first assault (4.9% of sexually assaulted as compared to 2.8% of nonassaulted). In addition, the sexually assaulted were 2.3 times more at risk for development of alcohol abuse or dependence *after* the assault than the nonassaulted, as well as 1.8 times more likely to report alcohol abuse or dependence *before* the assault. Given these risk ratios, it appears that alcohol abuse or dependence is more

highly related to assault as a consequence than as a precursor. Although these results did not consider only CSA victims, the authors found that those assaulted in childhood (15 years or younger) were more likely to develop a substance abuse disorder than those first assaulted in adulthood.

One study using a community sample was found which does not provide support for the relationship between CSA and subsequent alcohol use or abuse. Harrison, Fulkerson, and Beebe (1997) investigated the relationship between substance use and physical and sexual abuse in a sample of 122,824 public school students in Grades 6, 9, and 12. Information was obtained using the Minnesota Student Survey. Questions assessing sexual abuse included: Has any adult or older person outside the family ever touched you sexually against your wishes or forded you to touch them sexually? Has any older or stronger member of your family ever touched you sexually or had you touch them sexually? Questions regarding substance use were identical to the Monitoring the Future survey lifetime and annual substance use prevalence questions (Johnston et al., 1994).

The relationship between CSA and alcohol use during adolescence was investigated with 6th graders, 9th graders, and 12th graders. However, no statistical comparisons were conducted between abuse victims and nonvictims for rates of substance use. Of female children surveyed, approximately 4.9% of sixth graders reported only sexual abuse, while 2.3% reported both sexual and physical abuse. Of sixth graders, 4.3% of the sexually abused girls and 10.3% of the physically and sexually abused girls reported use of one substance, compared to 4.9% of physically

abused and 1.2% of the non-abused girls. Approximately 1.2% of the sexually abused girls and 6.7% of the physically and sexually abused girls reported multiple-substance use, compared to 0.4% of physically abused and 0.1% of nonabused girls.

Nine percent of 9th graders reported only sexual abuse, while 4.5% reported both sexual and physical abuse. Of ninth graders, 19% of sexually abused girls and 20.4% of the physically and sexually abused girls reported use of one substance, compared to 11.6% of non-abused girls and 18.6% of physically abused girls. Almost four percent (3.8%) of sexually abused girls reported multiple-substance use, compared to 9.8% of physically and sexually abused girls, 4.1% of physically abused girls and 1.0% of non-abused girls.

Almost twelve percent (11.7%) of twelfth grade girls reported child sexual abuse only, while 3.6% reported both physical and sexual abuse. Of twelfth graders, approximately 27.6% of sexually abused and 27.5% of physically and sexually abused girls reported use of one substance, compared to 28.6% of physically abused girls and 25.2% of non-abused girls. Eight percent of physically and sexually abused girls reported multiple-substance use, compared to 3.3% of sexually abused girls, 2.4% of physically abused girls, and 1.1% of non-abused girls.

These findings are difficult to interpret because statistical comparisons between the different abuse groups were not computed. In addition, it is difficult to discern the relative importance of alcohol use as it was combined with use of marijuana and other illicit substances. However, given the information presented, it appears that CSA victims are not more likely to use one or multiple substances as compared to

girls with other abuse histories. Although differences are present between girls with CSA and nonabused girls, girls who have experienced both sexual and physical abuse appear to be at the greatest risk for use of one or more substances.

Summary. The majority of community studies found evidence of the relationship between CSA and alcohol abuse or alcohol related problems. The one study that did not provide support (Harrison et al., 1997) has numerous methodological problems including poor assessment of CSA, unclear definitions and assessment of alcohol problems, and lack of statistical comparisons. However, despite that the majority of studies here support the association between CSA and alcohol problems, all have methodological problems or a small sample. Given these weaknesses, further research regarding this relationship with large community samples is desired.

Clinical Samples. Singer, Patchers, and Hussy (1989) investigated the relationship between substance abuse and sexual abuse among 96 male and female psychiatrically hospitalized adolescents. Information regarding CSA was obtained through official records, reports of family members, and/or self-report. A control group of hospitalized adolescents was screened for possible abuse through individual interviews, family interviews, and records. Patients were matched for age, race, gender, and primary psychiatric diagnosis. A definition of CSA was not described. Subjects completed a questionnaire to measure drug and alcohol use patterns. This information was combined with information from the subject's parents, school personnel, and an interview by a certified drug counselor. Approximately 49.5% of

the patients were identified as sexually abused, while 50.5% were not abused. Differences with respect to frequency of alcohol use were found, with 43% of CSA victims drinking at least once a week, compared to 31% of nonvictims. In addition, 44% of CSA victims reported being drunk at least three times in the past two months, while only 16% of nonvictims reported this level of drunkenness. Finally, the temporal relationship between the onset of CSA and the onset of alcohol/drug abuse was investigated. Results indicated that 55% had been sexually abused prior to first drink or first drug use; 23% had been sexually abused in the same year that they reported the first drink or first drug use; and 23% had been sexually abused subsequent to first drink or first drug use.

Singer, Song, and Ochberg (1994) investigated the relationship between substance abuse and sexual abuse in a population of 260 psychiatrically hospitalized adolescents. Both male and female patients were interviewed. Alcohol and drug abuse was assessed with two questions: (1) How many times were you drunk in the past two months? and (2) How many times were you high on drugs in the past two months? Answers were rated on an 8-point scale (0=none to 7=seven times or more). A composite to these two-item scores was generated as the measure of the substance abuse variable. Sexual abuse was determined through official records, reports of family members, and self-disclosures. Self-disclosures were facilitated by the use of a screening protocol that included completion of a sexual abuse questionnaire followed by a clinical interview. The definition of CSA was not described. Findings revealed that sexual abuse had both direct and indirect effects on

alcohol or drug abuse. Sexually abused adolescents were more likely to abuse mood-altering substances than nonabused adolescents. Further, CSA victims reported greater perceived benefits of alcohol or drug use, as compared to nonvictims. In fact, sexual abuse was the most powerful of the exogenous variables in predicting alcohol or drug abuse (more powerful than gender or parental alcohol abuse).

Pribor and Dinwiddie (1992), investigated the association of childhood incest and psychiatric illness in a sample recruited from family service agencies and self-help groups which specialized in programs for sexually abused women. Fifty-two women who had experienced incest and 23 comparison subjects were compared for rates of alcohol abuse and dependence using a computerized version of the NIMH Diagnostic Interview Schedule (DIS) based on the DSM-III. Incest was defined as unwanted sexual contact between the participant and a relative too close to marry, and was assessed during a structured clinical interview. Incest victims were more likely to have alcohol abuse or dependence (28.8%) as compared to psychiatric comparison subjects (4.3%). Alcohol abuse and dependence of incest victims were also compared to lifetime prevalence rates of women in the general population using data from another study, which combined alcohol and substance abuse and dependence. When compared to women in the general population, incest victims were again more likely to have substance abuse or dependence (28.8% compared to 4.99%) than women in the general population.

Zierler, Feingold, Laufer, Velentgas, Kantrowitz-Gordon, and Mayer (1991) investigated the relationship between CSA and behaviors affecting risk of HIV

infection in a sample of individuals involved in an HIV testing and counseling program. Information regarding alcohol use and CSA was obtained with a questionnaire. Of the 101 women who participated, 19.8% reported a history of CSA and 8.9% reported sexual abuse as a teenager, with CSA defined as being raped or forced to have sex as a child or as a teenager. Heavy alcohol use was defined as usual consumption of at least one bottle of wine, five cans of beer, or one pint of hard liquor when drinking. Female victims were more likely to report heavy alcohol use (30% of CSA victims as compared to 14.6% of nonvictims). In addition, female victims were twice as likely as nonabused women to report a history of heavy alcohol consumption at some period during their lifetimes.

Rohsenow, Corbett, and Devine (1988) investigated the association between CSA and substance abuse in female patients who were admitted to an inpatient chemical dependency rehabilitation program. It was unclear how many patients were included in the study. Sexual abuse was defined as direct physical contact by a perpetrator at least five years older (or otherwise more powerful) than the victim. In addition, the participant was considered sexually abused only if she considered the experience dysphoric (then or currently) and if the victim did not feel the event was resolved in some way during childhood. This definition was chosen to be conservative in order to identify only cases with serious unresolved issues. Approximately 81% of adolescent females and 76% of adult females reported child sexual abuse. No control group was employed.

Briere and Runtz (1987) investigated post sexual abuse trauma in a clinical

sample of 152 adult women requesting crisis counseling. Sexual abuse was operationally defined as any self-reported sexual contact (e.g., fondling to intercourse) experienced by a client before the age of 15, initiated by someone five or more years her senior. This did not include aversive experiences between same-age peers or victimization during later adolescence. The definition of alcoholism was not described. It is unclear whether information was obtained through use of questionnaires or interviews. Sixty-seven (44.1%) of the clients had a history of CSA. Sexual abuse victims were more likely than nonabused clients to have a history of alcoholism (26.9% of CSA victims as compared to 10.5% of nonvictims).

Allers and Benjack (1991) examined the incidence of childhood sexual and physical abuse in a sample of 52 HIV-infected adults. Forty-five participants were male, seven were female. A semi-structured research interview was designed to assess history of childhood abuse as well as alcohol or other drug abuse. The definition of sexual abuse was similar to that used by Bass and Davis (1988). Sexual abuse was defined as one or more of the following events during with the perpetrator was at least five years older than the individual: touched or rubbed in sexual areas, forced or manipulated into watching pornographic movies or listening to seductive, graphic sexual talk; fondled, kissed, or held in a way that made them feel uncomfortable; forced to watch sexual acts or look at adult genitalia; bathed in a way that felt intrusive; forced to pose for sexual or seductive photographs; forced to participate in sexual activities (i.e., oral, vaginal, or anal intercourse). Approximately 65% of the participants reported a history of sexual abuse, all of

whom also reported childhood physical abuse. Of participants who reported sexual abuse, 86% reported a history of alcohol or other drug abuse, compared to 44% of participants with no child abuse history.

The prevalence of victimization and PTSD among women with substance use disorders was examined by Dansky, Saladin, Brady, Kilpatrick and Resnick (1995). Two samples were obtained and compared, one a telephone sample consisting of a subset of participants in the 1989 *National Women's Study*. This sample consisted of 4,008 women age 18 or greater in a national household probability sample (telephone sample) of the United States. Of these women, 70 reported that they had received inpatient and/or outpatient treatment for a substance use disorder and were included in analyses. An in-person sample consisted of 73 women in the adult chemical dependency treatment program at the Center for Drug and Alcohol Programs (CDAP). Information regarding victimization, substance use and PTSD was obtained through structured interviews. Prevalence rates of rape, molestation and sexual assault were examined for women in both samples. Approximately 60.3% of the in-person sample and 54.3% of the telephone sample indicated experiencing rape, 30.1% of the in-person sample and 31.4% of the telephone sample reported experiencing attempted sexual assault, and 21.9% of the in-person sample and 25.7% of the telephone sample reported experiencing molestation. Although the rates of sexual assault are high in this sample, it is unknown whether a relationship exists between victimization and substance use in general, or specifically for alcohol or other drugs. In addition, the age during which victimization took place is unknown. It appears that

women with childhood and adult sexual assault experiences were included in the same group. Finally, it is unknown whether women with substance use disorders were more likely to report a history of sexual assault, as a comparison group of women without a substance disorder history was not included.

Several studies using clinical samples are available which do not support the association between CSA and subsequent alcohol use or abuse. Brown and Anderson (1991) investigated the long-term effects of childhood sexual and physical abuse in a sample of male and female psychiatric patients. Participants included 947 active-duty and retired military members and their dependents. Less than one half (41%) of the participants were women. Sexual abuse was defined as any self-reported sexual contact--ranging from fondling to sexual intercourse--experienced by a patient on or before age 18 and initiated by someone five or more years older or by a family member at least two years older. This definition includes exploitative sexual contact with minor children between 16 and 18 years of age and incestuous contact between siblings of different developmental ages (e.g., 16, 20). History of abuse was elicited by means of broad questions, such as: Before you were 18 years old, did anyone touch you or engage you in a sexual way without your permission? An affirmative or ambivalent response was followed by a more detailed series of questions to obtain specific recollections of events and the perpetrators. Of the 947 participants, 86 patients (9%) reported sexual abuse (with or without physical abuse), and 68 (7%) reported sexual abuse alone. More women (83%) than men (17%) reported sexual abuse. No differences were found for diagnosis of alcohol use disorder between the

sexual abuse (17%), physical abuse (28%), combined (43%), and no child abuse groups (21%). Sexually abused participants were not more likely than participants with other abuse histories to have an alcohol disorder. However, participants reporting physical or combined abuse were more likely to be diagnosed with an alcohol use disorder than sexually abused participants or participants with no abuse history.

Briere and Zaidi (1989) examined drug and alcohol use in a sample of 50 nonpsychotic female patients in a psychiatric emergency room. Information regarding alcohol abuse and drug use was obtained from patient charts (using DSM-III-R diagnostic criteria). CSA was defined as any sexual contact, ranging from fondling to intercourse, that occurred before age 17 and was initiated by someone 5 or more years older. Given this definition, 70% met the criteria for CSA. Results revealed that women with a history of CSA were more likely than nonvictims to use drugs (57% of victims versus 27% of nonvictims), but were not more likely to report alcohol abuse (37% of victims versus 20% of nonvictims reported alcohol abuse).

Harrison, Hoffmann and Edwall (1989) investigated the drug use patterns among sexually abused adolescent girls. All 444 adolescent girls were in treatment for chemical dependency. Participants were categorized as being sexually abused by answering the following questions: Has anyone in your family ever been sexual with you? Has anyone else ever sexually abused you? Based on responses to these questions, 52.7% (n=234) were identified as nonvictims, 27% (n=120) were identified as extrafamilial victims, 10.6% (n=47) as intrafamilial victims, and 9.7%

(n=43) as intrafamilial and extrafamilial victims. Methods used to obtain information regarding alcohol use was not described. No difference in frequency of alcohol use were found between nonvictims (12.9%) and CSA victims (extrafamilial 14.3%, intrafamilial 19.1%, and both 20.9%). However, sexual abuse victims in general initiated substance use at an earlier age than nonvictims. Intrafamilial victims and victims of both intra- and extrafamilial abuse were more likely to use alcohol before age 11 than nonvictims and extrafamilial victims.

The inability of Harrison et al. (1989) to find a relationship between CSA and alcohol abuse may be due to several factors. CSA victims and nonvictims were compared only for frequency of daily alcohol use; different patterns may emerge if quantity is considered together with frequency. Information regarding tolerance, withdrawal symptoms and other symptoms of alcohol abuse and dependence may help reveal differences between CSA victims and nonvictims. Finally, 58 participants denied sexual abuse during the standard interview, but their counselors indicated that abuse was reported prior to or during treatment. These patients were excluded from analyses. In addition, 95 cases where the patient left treatment before completing the interview were excluded. Excluding these cases may have obscured the relationship between CSA and alcohol abuse.

Carmen, Rieker, and Mills (1984) explored the relationship between physical and sexual abuse and psychiatric illness, including alcohol abuse. Information regarding sexual abuse history and abuse of alcohol was obtained through investigation of inpatient psychiatric records. Violence was defined as any form of

serious physical or sexual abuse described in the discharge summary or in the record. These events included child abuse, incest, marital violence, and assault or rape occurring outside of the family. Instances in which abuse was suspected but not confirmed in the records were not coded as violence. Of 123 females, 52.8% were identified as abused (either physically, sexually, or both), while 47.2% were identified as nonabused. No relationship was found between child abuse and abuse of alcohol. However, one cannot discern that alcohol abuse is unrelated to CSA, as the abused group included both physically and sexually abused subjects.

Juvenile Detention. Although not necessarily a clinical sample in a psychiatric sense, juvenile detention centers appear more similar to clinical settings than those in the general community. One study was located which examined the relationship between sexual abuse and alcohol use among youths in a juvenile detention center (Dembo, Dertke, Borders, Washburn, & Schmeidler, 1988). Participants consisted of 145 male and female adolescents, (between 10 and 18 years of age), with a mean age of 15. The majority of participants were Caucasian. CSA was assessed during an interview derived from Finkelhor (1979). CSA was defined as having a sexual experience before the age of 13 with a person over the age of 18, having a sexual experience with an adult which took place between the ages of 14 and 17, which involved force or fear, or having a sexual experience with a parent or stepparent. Given this definition, 60% of the female adolescents reported being sexually victimized one or more times in their lives. When the experience of CSA was examined in relationship to alcohol use, Dembo and colleagues failed to find a

relationship between these factors (even when gender was considered). However, the failure to identify a relationship between CSA and alcohol use may be due to the nature of this sample. The authors reported that the detainees in their sample reported a much higher level of alcohol use than similarly-aged youths surveyed by the National Institute on Drug Abuse (NIDA) study in 1982. Given these overall high rates, all youths in this sample may be more likely to drink, and drink at higher levels, distinctions given victimization history may not be possible.

Other Clinical Samples. The effects of CSA on the development of alcoholism was examined by Miller, Downs, Gondoli, and Keil (1987) who compared a sample of 45 alcoholic women selected from local treatment agencies and Alcoholics Anonymous groups and a group of 40 non-alcoholic women selected randomly from a household population. The non-alcoholic women were screened using the Michigan Alcoholism Screening Test as well as the Quantity-Frequency Index for alcohol consumption. Sexual abuse was defined as both contact and noncontact experiences that occurred prior to the age of 18; sexual experiences with peers or boyfriends that were not coercive or threatening were excluded.

Women in the alcoholic sample (67%) were more likely to have experienced sexual abuse as compared to women in the nonalcoholic group (28%). In addition, a greater percentage of alcoholic women (71%) reported having at least one parent with alcohol-related problems as compared to non-alcoholic women (23%). Half (51%) of the alcoholic women reported having fathers with alcohol-related problems as compared to 13% of the non-alcoholic group. However, most importantly, the

presence of CSA significantly contributed to the discrimination between alcoholic and non-alcoholic women, even when current age, present income source, and the presence of a parent with alcohol-related problems were in the equation. In fact, sexual abuse had nearly as strong a contribution to the discriminant function score as does presence of a parent with an alcohol-related problem, which suggests that both CSA and parental alcoholism are predictors of alcoholism in women. This study has particular strengths, including screening control subjects for alcohol abuse and considering the role of parental alcohol problems in development of alcoholism.

In a latter study conducted by Miller, Downs, and Testa (1991) the interrelationship between childhood victimization and women's alcohol use was investigated. Childhood violence included physical aggression by parents as well as childhood sexual abuse (both intrafamilial and extrafamilial). Four hundred seventy two women between the ages of 18 and 45 participated in in-depth interviews. CSA was assessed for experiences prior to age 18. Interview questions were similar to those of Finkelhor (1979) and Sgroi (1982). Sexual experiences were classified according to three subscales: exposure, touching (contact), and penetration. To determine whether women had alcohol-related problems, DSM-III-R criteria were used as assessed by the Diagnostic Interview Schedule (DIS). Additional information was obtained with the Michigan Alcoholism Screening Test (MAST).

The study was designed to test whether the relationship between childhood victimization and alcohol problems in women is important for any level of alcohol problems or whether the relationship is predominantly found in women with the most

serious alcohol-related problems. Victimization rates revealed that women in alcoholism treatment (severe alcohol problems) reported higher rates of exposure, contact sexual abuse and penetration than women with minor alcohol problems and a random control sample of women with no alcohol problems. Specifically, for women in alcoholism treatment, 54% reported exposure, 60% reported contact sexual abuse, and 47% reported penetration. For women with minor alcohol problems, 13% reported exposure, 17% reported contact abuse, and 7% reported penetration. For women with no alcohol problems, 26% reported exposure, 21% reported contact abuse, and 9% reported penetration. No differences were found between women with minor alcohol problems and women with no alcohol problems. In addition, it was examined whether the relationships between childhood victimization and women's alcohol-related problems are related specifically to alcohol problems or whether this relationship is more important to treatment seeking for a range of mental health and personal problems. Women in treatment for alcohol problems were compared to women in treatment with no alcohol problems and a random household sample. Victimization rates revealed that women in alcoholism treatment reported higher rates of exposure, contact sexual abuse and penetration than women in treatment with no alcohol problems and a control sample of women. Specifically, for women in alcoholism treatment, 58% reported exposure, 60% reported contact sexual abuse, and 44% reported penetration. For women in treatment with no alcohol problems, 43% reported exposure, 41% reported contact abuse, and 27% reported penetration. For women in the control group, 26% reported exposure, 21% reported contact

abuse, and 9% reported penetration. Women in treatment for alcohol problems had higher rates of all forms of CSA as compared to women in treatment with no alcohol problems and the control group. In addition, women in treatment without alcohol problems had higher rates for all forms of CSA than women in the control sample. Differences in CSA experiences between women in alcoholism treatment and women from the general population exist even when controlling for demographic and family background variables (such as parental drinking). The authors conclude, however, that the important relationship may not be between CSA and heavy drinking per se, but rather between CSA and serious alcohol-related problems that require treatment.

Kovach (1986) investigated the presence of post-traumatic stress disorder symptoms in a sample of alcoholic women, specifically to see if a history of incest was related to PTSD symptoms. Incest was defined as any reported sexual contact with someone whom the subject perceived to be closely related (i.e., blood relatives, step- or adoptive relatives) or unrelated individuals who functioned in a parental or familial role, such as guardians or foster parents or siblings. Alcoholism was defined as participation in Alcoholics Anonymous (i.e., self-description by the subjects). Of 117 female members of Alcoholics Anonymous, 29 (24.8%) reported a history of incest. No comparison group, of either non-alcoholic women or alcoholic women not in treatment, was employed.

Summary. Investigation of the association between CSA and subsequent problems with alcohol with clinical samples provides some support for this relationship. The majority of studies described here offer full or partial support for

the association between CSA and alcohol abuse or dependence. Many studies that lend only partial support do so because both males and females were included in the study, because alcohol and drug abuse/dependence was combined, or because CSA was included with adult abuse experiences. Studies which failed to find a clear relationship between alcohol abuse/dependence and CSA usually employed small samples, and one study combined child sexual and physical abuse. Small samples and combining different types of abuse may mask true differences. In addition, this section has reviewed studies which include participants from settings such as general counseling services, psychiatric inpatient wards, inpatient treatment for chemical dependency, and 12-step groups. Given the diversity of clientele from these settings, as well as the differences between such patients and women in the community, generalizability of findings from clinical samples is limited.

College Samples. Only one study with college participants was located. Sedney and Brooks (1984) surveyed 301 college women to examine factors associated with a history of CSA. Information regarding sexual abuse and alcoholism was obtained in questionnaires. A specific definition of alcoholism was not described. Sixteen percent of the subjects reported some kind of sexual experience with another person while growing up; however, the definition of CSA was unclear. Activities included exposure, touching, oral-genital contact, masturbation and intercourse. No significant differences were found between women with a history of sexual abuse (intrafamilial, extrafamilial and combined) and nonvictims. Nine percent of intrafamilial victims reported alcoholism, compared to 6% of extrafamilial victims,

8% of all sexual abuse victims and 6% of nonvictims.

Conclusion: Child sexual abuse and alcohol use and abuse. The link between CSA and subsequent alcohol use or abuse has been found in clinical and community samples. However, no support for this association was found with the one available study using a college sample (Sedney & Brooks, 1984). Despite support for the relationship between CSA and alcohol problems, much of the evidence is mixed. The differences in findings, however, may be due to differences in methodology. Methodology had great variability across the studies reviewed here.

In addition, many of these studies suffer from methodological problems. These problems may be as simple as neglecting statistical comparisons between CSA victims and nonvictims (e.g., Harrison et al., 1997), or failure to screen comparison groups for alcohol abuse, dependence or alcoholism (e.g., Pribor & Dinwiddie, 1992).

Different methods for assessing CSA and alcohol problems contribute to mixed support for this relationship, and make comparisons of these studies difficult. In fact, some studies do not specify how CSA is defined (e.g., Sedney & Brooks, 1984; Singer et al., 1989; Singer et al., 1994). Other definitions of CSA are more narrow than those conventionally used in research on the effects of CSA. For instance, Pribor and Dinwiddie (1992) include only incest victims, Zierler et al. (1991) included only experiences of intercourse, while Rohsenow et al. (1988) include only women with at least 10 abusive experiences, which they must have considered dysphoric. These types of definitions will underestimate the prevalence of CSA.

Methods of assessing abuse experiences are also important, as previous research has shown that methods of inquiring about such experiences influence prevalence rates. For instance, it is recognized in this area of research that one does not ask an individual if she has been abused as many victims of CSA, adult rape or battery do *not* consider themselves victims (Koss, 1993). Rather, a preferred method is to ask whether certain experiences occurred or not, and allow the investigators to label such experiences as abusive. Thus, although many studies may use definitions of CSA that are consistent with other researchers in the area, use of questions including phrases such as "abuse" or "victim" may result with an underestimate of prevalence rates (e.g., Harrison et al., 1989; Silverman et al., 1996). Related, some studies did not obtain information regarding CSA through an interview or questionnaire but from patient charts (e.g., Briere & Zaidi, 1989). This method may result in an underestimation of the prevalence of CSA, as such experiences may not be routinely investigated.

Similar problems are present for defining alcoholism or problems with alcohol. For instance, the definition of alcoholism is unclear in some studies (e.g., Briere & Runtz, 1987; Sedney & Brooks, 1984). Other studies (e.g., Harrison et al., 1989) fail to describe how information was obtained regarding alcohol use. In addition, some researchers include alcohol along with other drugs (e.g., Harrison et al., 1997; Singer et al., 1994) so it is unknown whether a relationship would remain between CSA and alcohol problems if only alcohol were considered.

Other weaknesses include methods used to recruit subjects and response rates.

During recruitment Pribor and Dinwiddie (1992) informed potential participants of the information requested (about sexual experiences) which may bias participation rates. Other studies are plagued by poor survey response rates, including as low as 45% (Mullen et al., 1996) which may also result in a biased sample. Some findings regarding the relationship between CSA and alcohol use are unclear because samples have included both male and female participants (e.g., Allers & Benjack, 1991; Brown & Anderson, 1991; Burnam et al., 1988; Singer et al., 1989; Singer et al., 1994). Because results were not presented separately by gender it is unknown whether such relationships would remain if only women were considered. Related, one study (e.g., Burnam et al., 1988) combined adult and child abuse experiences together, so it is unclear whether the relationship between CSA and alcohol use would remain if only CSA experiences were considered. Finally, two studies (e.g., Singer et al., 1989, Singer et al., 1994) included only adolescents, thus it is unknown whether their findings can be applied to adults.

Finally, many of the above studies suffer from common weaknesses such as a small sample size (e.g., Allers & Benjack, 1991; Briere & Runtz, 1987; Briere & Zaidi, 1989; Carmen et al., 1984; Dembo et al., 1988; Kovach, 1986; Miller et al., 1987; Peters, 1984; Pribor & Dinwiddie, 1992; Zierler et al., 1991), and retrospective reporting of CSA. Retrospective reporting of CSA was found in all studies, which may make information less accurate, especially for CSA experiences, given that individuals may not remember previous childhood abuse experiences. Findings from small samples may be biased and have limited generalizability.

Generalizability is also affected by the type of samples used. Many studies are limited by the use of clinical samples, particularly women in substance abuse treatment, which reduces the generalizability of conclusions.

Alcohol Consumption and Adult Sexual Assault

Alcohol and Adult Sexual Assault Theory

Findings in the sexual assault literature have revealed that heavy alcohol consumption by women may place them at greater risk for sexual assault. Given this, the literature regarding the relationship between alcohol consumption and adult sexual assault will be reviewed.

It must be recognized that responsibility for rape and other acts of violence ultimately lies in the hands of the perpetrator. If perpetrators would choose not to rape or commit other violent acts, then information regarding risk factors for such experiences would be less important. However, until society becomes less tolerant of acts of violence against women, and recognizes that perpetrators are the ones responsible, research regarding risk factors, including the behavior of the victim, is extremely important. Women can be empowered by learning about certain factors and behaviors that may put them at risk for sexual assault.

The role of women's alcohol consumption in sexual victimization has been the subject of much research (for review see Testa & Parks, 1996). Previous research has established that drinking alcohol, being drunk or being an alcoholic may place a woman at risk for rape (Russell, 1984). Use of alcohol by the rape victim as well as the perpetrator has been identified as a situational variable which may increase the

likelihood of rape and other forms of sexual assault (Marx, Van Wie, & Gross, 1996). When alcohol use is assessed with rape survivors, often more than half of these women report using alcohol before the assault (Frinter & Rubinson, 1993; Harrington & Leitenberg, 1994; Miller & Marshall, 1987; Ward, Chapman, Cohn, White & Williams, 1992). Other studies have found that women who have experienced rape engage in higher levels of alcohol consumption during dates than women who have not been raped (Muehlenhard & Linton, 1987). In addition, previous research supports a relationship between general alcohol consumption (not specifically in the assault situation) and an increased likelihood for sexual assault or rape (Canterbury, Grossman, & Lloyd, 1993; Corbin, Bernat, McNair & Calhoun, 1996; D'Ercole & Struening, 1990; Erickson & Rapkin, 1991). Theories regarding why alcohol use may increase risk for sexual assault involve several factors. These factors include the setting in which alcohol consumption takes place, perceptions of women who drink alcohol, and the cognitive and motor impairments due to alcohol use.

Setting. One theory proposed by Testa and Parks (1996) to explain the link between women's alcohol use and sexual assault is that a woman who drinks may be more likely to encounter potential perpetrators than a woman who is not drinking as a result of the setting in which she consumes alcohol. Women who drink may often frequent bars or fraternity parties, settings which may increase risk for rape. Research by Fagan (1993) revealed that bars have many characteristics that facilitate aggression: people who are not well-acquainted, lack of social controls, and many

young, intoxicated males. Fillmore (1984) found that frequency of going to bars was associated with multiple social victimization (e.g., obnoxious behavior, property damage, and violence), an effect stronger for women than men. Further, going to bars appeared to increase the probability of social victimization regardless of the woman's own drinking level. College fraternity parties also appear to be a potentially risky setting for sexual victimization. Norms for such parties involve a high degree of alcohol consumption, assumed sexual activity (Norris, Nurius, & Dimeff, 1996), and use of alcohol as a tool for gaining sexual mastery (Martin & Hummer, 1993). In addition, fraternity members have been shown to be overrepresented as perpetrators of sexual assault (Frinter & Rubinson, 1993). Further, sorority members are more likely to have been raped and to have experienced nonconsensual sex while under the influence of alcohol compared to nonsorority members (Kalof, 1993). Testa and Parks (1996) suggest that increased vulnerability to sexual victimization results from settings in which women drink alcohol because these settings (bars, parties, dates) include men who are also drinking, and, thus, more likely to aggress.

Perceptions of women who drink. Another theory involves the men's perception of women who drink. Testa and Parks (1996) state that there is considerable evidence that women who drink are at increased risk of sexual victimization because of the way they are perceived by men. Men perceive drinking women as more sexually responsive (George et al., 1995), and are less likely to view forced or coerced sex with an intoxicated woman as rape (Norris & Cubbins, 1992). Russell (1984) proposed that women who are alcoholics may be perceived by men to

be "asking for it" by being available, vulnerable, "bad" women (Russell, 1984, p. 168). Beliefs regarding women who drink in dating situations may also adversely affect the victim. Abbey (1991) has suggested that women who consume alcohol on a date may be viewed as fair game by their assailants. For instance, intoxication by the female may be interpreted by some males as evidence of her willingness to engage in sex (Koss & Dinero, 1989). Further, views such as assuming that sexual activity is likely to follow a date where drinking is present were common among college students (Norris & Cubbins, 1992).

Cognitive and Motor Impairment. The link between alcohol consumption and sexual victimization has been theorized to be the result of a direct effect on cognitive and motor impairment, which prevents the woman from recognizing, escaping, or resisting sexual aggression (e.g., Nurius & Norris, 1995). Studies have demonstrated that alcohol consumption can have an adverse effect on general impairment of cognitive and motor functioning (Naranjo & Bremner, 1993; Peterson, Rothfleisch, Zelazo, & Pihl, 1990). For instance, Peterson et al. (1990) found that functions that were impaired by a high dose of alcohol included planning, verbal fluency, and complex motor control. Impairment of these behaviors could inhibit the ability of a woman to successfully resist sexual assault. High doses of alcohol also decreases the ability to judge facial expressions (Borrill, Rosen, & Summerfield, 1987).

Alcohol also appears to affect the way that people attend to or process information (Testa & Parks, 1996). Intoxicated women may tend to focus on the social aspects of the drinking situation and remain unaware of subtle danger cues

(Testa & Parks). Richardson and Hammock (1991) also suggest that alcohol consumption may impair a woman's ability to receive cues that could warn her that an assault is likely. Further, alcohol consumption may impair a woman's cognitive or motor functioning, decreasing her ability to resist a sexual assault (Muehlenhard & Linton, 1987). The consumption of alcohol may also impair resistance to sexual aggression once it begins. Alcohol is known to blunt responses to unpleasant stimuli (Strizke, Patrick, & Lang, 1995). Thus, an intoxicated woman may have a mild rather than a strong reaction to an aggressive act, and because of this, be less likely to attempt to alter the situation or to resist. Abbey (1991) also reasoned that intoxication may make a woman less aware of how her partner is responding to her, and consequently, she may continue to act in ways the man perceives as provocative although she does not desire sexual intercourse.

Alcohol consumption may also have a detrimental effect on use of effective resistance strategies. Norris, Nurius, and Dimeff (1996) found that estimated blood alcohol level in social situations was significantly and negatively correlated with estimated likelihood of using verbal assertiveness and with estimated likelihood of using physical resistance. Verbal assertiveness at the time of an aggressive incident has been shown to decrease likelihood of completed rape (Amick & Calhoun, 1987). Alcohol consumption negatively affects this resistance strategy. Abbey (1991) also found evidence that when women drink, their communication skills and coping responses decrease.

These factors may help explain why the use of alcohol by women may increase

their risk for sexual victimization for several reasons. Inability to protect oneself or escape violent situations may be caused by cognitive and motor impairment induced by alcohol. However, other factors, such as perceptions and beliefs of men about women who drink may be detrimental to women's safety as well.

Review of Empirical Literature

Many studies have revealed an association between alcohol consumption and date or acquaintance rape. Most available studies use college samples, fewer studies were located which investigated alcohol consumption and rape with a community sample. College settings can be beneficial when investigating acquaintance or date rape and its correlates, as colleges and universities contain large populations of women between 16 and 24 years of age. Women in this age group have been found to be the most susceptible to acquaintance rape (Benson, Charlton, and Goodhart, 1992). In addition, college samples may also be desired when the relationship between alcohol consumption and rape is investigated. However, despite the advantages of college samples, exclusive use of this population limits generalizability. Another limitation to generalization of findings from this review is that studies located almost exclusively concern acquaintance or date rape (excluding stranger rape experiences).

Two types of studies investigating the relationship between sexual assault and alcohol consumption were found. The majority of studies investigating this association examined alcohol consumption only in the dating situation. Other studies examined the relationship between sexual assault and general levels of alcohol

consumption (not necessarily in the assault situation).

Sexual Assault and Alcohol Consumption in the Dating Situation

Investigation of alcohol consumption while in a specific dating or assault situation is important, as use of alcohol is commonly thought to place women at risk for sexual assault. All studies that investigated sexual assault and alcohol consumption in a dating situation used college participants. Muehlenhard and Linton (1987) investigated the incidence and risk factors for rape and sexual aggression in dating situations. Three-hundred forty-one college women completed questionnaires regarding dating experiences. Participants were asked to describe their most recent date, whether each person used alcohol or drugs and how intoxicated each got, and other detailed information, including whether they had ever experienced unwanted sexual activity either in high school or in college. Unwanted sexual activity was defined as when the female did not want to engage in some sexual activity, and she made this clear to the male either verbally or nonverbally, but he did it anyway. Unwanted sexual activity ranged from kissing to sexual intercourse.

Results indicated that 77.6% of the women had been involved in some form of sexual assault, and 14.7% had been involved in unwanted sexual intercourse. When recent dates were compared to sexually aggressive dates, significant differences were found for rates of light and heavy drinking. Of women who had been sexually assaulted, 31.6% admitted using alcohol or drugs but acted/felt totally sober or acted/felt a little tipsy or buzzed, compared to 47.7% of women on recent dates (non-assaulted women). However, larger differences emerged regarding heavy drinking,

defined as using alcohol or drugs and acting/feeling moderately or extremely intoxicated; 21.1% of sexually assaulted women reported heavy drinking as compared to 5.1% of women on recent dates (non-assaulted women). Because merely using alcohol or drugs was not related to sexual aggression, but heavy usage was more common on sexually aggressive dates than on recent dates, Muehlenhard and Linton suggested that heavy alcohol or drug use by the female placed her at risk for sexual aggression. However, findings also revealed that the perpetrator, as well as the victim, were often using substances heavily during sexual aggression. Thus, heavy alcohol or drug use by *either* person is a risk factor for sexual aggression.

Koss, Gidycz, and Wisniewski (1987) investigated the incidence and prevalence of sexual victimization in a national sample of 3,187 college women. Information regarding sexual victimization was obtained through use of the Sexual Experiences Survey (SES; Koss & Gidycz, 1985; Koss & Oros, 1982). One question on this survey specifically asks: Have you ever had sexual intercourse when you didn't want to because a man gave you alcohol or drugs? Eight percent of respondents indicated that they had had such an experience. In addition, the yearly incidence of the same experience was investigated; 91 women (3%) reported intercourse due to alcohol or drugs, for a total of 159 incidents in a one-year time span.

Miller and Marshall (1987) investigated the prevalence of coercive sex in a university setting. Coercive sex was defined as an interaction that begins between a man and a woman in the context of a social event or gathering and ends with one

participant forcing the other to participate in sexual activity against his or her will. Participants included 323 female undergraduate and graduate students at two large state universities. Information was gathered in survey format using a questionnaire designed by the researchers. Approximately 15% of female respondents indicated that they had engaged at least once in unwanted sexual intercourse, and over half (60%) of the college females who had experienced coercive sex said that it happened when they had been using alcohol or other drugs.

Harrington and Leitenberg (1994) surveyed 942 female college students to examine the relationship between alcohol consumption and sexual aggression. Victimization status was investigated with the Sexual Experiences Survey (SES; Koss & Oros, 1982). Victims must have been at least 16 years of age at the time of the assault, report sexual contact other than kissing, and report that the perpetrator had used threats or physical force. Approximately 25% of the women were victims of sexual aggression involving an acquaintance. An additional 1% experienced sexual aggression by a stranger, but were excluded from analysis because the perpetrator was not an acquaintance. The majority of victims (55%) indicated that they were at least somewhat drunk at the time of the assault.

Yegidis (1986) investigated the incidence of date rape and other forms of forced sexual behavior among 648 college students. Information was gathered in questionnaire format, with students being asked about their experiences with forced sexual activities while dating. Force was operationalized on a continuum ranging from verbal persuasion to use of a weapon. Sexual activities were defined as

fondling, oral sex, intercourse and "other." Results revealed that 22% of women had been forced to engage in some form of unwanted sexual activity, and 7.8% reported forced sexual intercourse. Of women reporting unwanted sexual activity, 37.7% reported being forced by alcohol or drug use. However, drugs and/or alcohol were used by the victim or perpetrator or both in nearly all incidents of victimization.

Himelein (1995) investigated risk factors for sexual victimization during dating in a longitudinal study of college women. The 10-item Sexual Experiences Survey (SES; Koss & Gidycz, 1985; Koss & Oros, 1982) was adapted to measure sexual victimization in dating by adding the phrase "on a date with a man" to each item of the SES. Dating was operationally defined as a mutually planned or spontaneous social activity with someone of the opposite sex-- attending a movie, going for a walk, leaving a party with someone, meeting someone in a bar, playing tennis with someone, or going parking to name just a few. Victimization in dating was categorized as no victimization, low, moderate or severe (rape) victimization. Three questions were derived from the protocol of Koss and Dinero (1989) to measure alcohol use: frequency of use of alcohol, amount usually drunk, and perceived degree of intoxication. Questions were edited to refer specifically to alcohol use in dating situations. Information from these questions were added together to form one overall index of alcohol use. Three-hundred thirty women (85% response rate) entering the first year of college participated in data collection at Time 1, while 100 volunteers (48% response rate) participated at follow-up (Time 2). Results indicated that 38% of participants had been sexually victimized in dating situations prior to entering college,

and 29% had been sexually victimized in dating situations since entering college. Victimization experiences in college (r=.22) and before college (r=.26) were correlated to greater use of alcohol in dating situations.

Frinter and Rubinson (1993) investigated the relationship between alcohol, fraternity and sports team membership and acquaintance rape in a sample of 925 undergraduate women. Information was obtained with surveys (62% response rate). Sexual victimization was measured with a survey which included several questions to determine the extent of sexual victimization, and additional questions were asked regarding the most sexually stressful incident the woman had experienced since in college. Sexual assault was defined as an act of sexual penetration by the use or threat of force. Sexual abuse differed from sexual assault primarily in that penetration was not achieved. Overall, 27.1% of the respondents reported being involved in at least one incident of sexual assault, attempted sexual assault, sexual abuse, or battery, intimidation or legal restraint. Nine percent reported completed sexual assault, 6.6% reported attempted sexual assault, 6.4% reported sexual abuse, and 5.5% reported battery, intimidation or illegal restraint. Of women who were victims of attempted or completed sexual assault, 55.3% indicated that they had been drinking. In addition, 21.4% of the women reported that they thought the man planned the incident and encouraged them to drink beyond their tolerance.

Ogletree (1993) investigated the prevalence of sexual coercion and help-seeking behavior in a sample of 656 college women. Sexual coercion was defined as attempted rape or sexual intercourse that occurred subsequent to the use of menacing

verbal pressure, misuse of authority, threat of force or use of force. Information regarding sexual coercion was obtained using the Sexual Experiences Survey (SES; Koss & Oros, 1982; Koss, Gidycz & Wisniewski, 1987). Results showed that 42% of the women had been victims of sexual coercion in dating situations while in college. The link between alcohol and sexual victimization was also found, as 31% of the women indicated that they had experienced unwanted intercourse because a date gave them alcohol or drugs.

Finley and Corty (1993) investigated the prevalence of sexual assault on a college campus, specifically to determine the prevalence of sexual assault involving force, alcohol and psychological pressure. The definition of sexual assault used for this study was unclear, although the authors mentioned the legal definition as including sexual penetration accomplished via force or threat of force, or when the victim is unable to understand the nature of the act or is unable to give informed consent (victim is unconscious, intoxicated, mentally retarded, or in some other way unable to give knowing consent). Information was obtained with a modified form of the Sexual Experience Survey (Koss & Oros, 1982) and questions focused on the students' experiences during the entire time that they were enrolled in college and on campus. Of 247 women surveyed, approximately 12.1% of women in their first year and 15.5% of upper class students reported sexual assault due to use of alcohol. Overall, 14.2% of respondents indicated that they had experienced sexual assault due to use of alcohol.

Mills and Granoff (1992) investigated date and acquaintance rape among a

sample of college students. A questionnaire was used to assess sexually assaultive experiences, including the question: Have you ever felt taken advantage of sexually when you were under the influence of alcohol or drugs? Of the 113 female undergraduate participants, 2.6% reported having that experience once, while 9.7% reported having the experience on multiple occasions.

Unwanted sexual experiences among middle school and high school students were investigated by Erickson and Rapkin (1991). Approximately 1200 male and female students from the Los Angeles metropolitan area participated. Ethnicity of the student sample consisted of 42% non-Hispanic white, 24% Hispanic, 13% Asian, and 13% African-American. Questions regarding unwanted sexual experiences were open-ended: Did you ever have a sexual experience (or sexual intercourse) with someone when you did not want to? If yes, how old were you at the time? Please describe what happened. Respondents were asked the frequency of unwanted experiences and their relationship to the person with whom they had the experience. The survey also included questions about drug and alcohol use. An index score was created to summarize the respondent's frequency of use of alcohol and illegal drugs. A value was assigned to each based on self-reported use (0 = never or rarely; 1 = occasionally; 2 = once a week; 3 = several times a week; and 4 = daily). Approximately 18% of female students reported having had an unwanted sexual experience. Based on age, 27% of the forced experiences could be labeled as a childhood sexual abuse experience (before age 13). Thirty-one percent of female students reported forced intercourse or rape, while 17% reported an unwanted sexual

experience due to the influence of drugs or alcohol.

Ward, Chapman, Cohn, White and Williams (1992) investigated the incidence of unwanted sexual experiences on one college campus. The authors developed their own questionnaire which measured unwanted sexual contact, unwanted attempted sexual intercourse, and unwanted completed sexual intercourse. Sexual contact was defined as attempted or actual kissing, fondling or touching someone in a sexual or intimate way. Attempted intercourse was defined as any form of attempted sexual penetration. Completed sexual intercourse was defined as any form of sexual penetration, including vaginal intercourse, oral sex, and anal intercourse. Unwanted was defined as those situations in which the woman was certain at the time that she did not want to engage in the sexual experience and either communicated this in some way (said no, protested, said she didn't want to, physically struggled or cried) or else was intimidated or forced. Of the 524 female participants, 34% reported unwanted sexual contact, 20% reported unwanted attempted intercourse and 10% reported unwanted completed intercourse. Alcohol was used by the woman in 57% of unwanted contact experiences, 54% of attempted intercourse experiences, and 65% of unwanted intercourse experiences. Reported alcohol use by males was also very high (over 75% in all cases).

Sexual Assault and General Alcohol Consumption

As stated previously, other studies have investigated the association between sexual assault and general levels of alcohol consumption. Findings regarding general alcohol consumption and sexual assault are important. Because it is commonly

believed that it is drinking in a dating situation that is dangerous, other potentially risky behaviors associated with general alcohol use may be overlooked. For instance, women who drink heavily may be more likely to place themselves in potentially dangerous situations (e.g., being at bars alone, drinking with intoxicated men) more frequently than casual drinkers. Thus, even if a woman is not intoxicated, she may be at risk because of other situational variables influenced by her heavy alcohol use.

Canterbury, Grossman, and Lloyd (1993) investigated the drinking behaviors and lifetime incidents of date rape among high school graduates entering college. Date rape was defined as forced sexual intercourse which occurs when a dating partner refuses to comply with his/her date's request to cease making sexual advances or unwanted sexual intercourse which occurs when the dating partner is irrational, semi-conscious, unconscious or unable to respond as a result of alcohol and/or other drug intoxication. Information was gathered with surveys, and date rape information was elicited by the question: Were you ever forced into having sex with someone you were dating? In a sample of 1,038 female students, 3.3% of respondents reported being survivors of date rape. Women who had experienced date rape (50%) reported drinking more often than women with no rape experience (24.4%).

Risk factors for sexual assault including alcohol expectancies and consumption were investigated by Corbin, Bernat, McNair and Calhoun (1996) with a college sample of 238 women. Sexual assault was assessed with the Sexual Experiences Survey (Koss et al., 1987), and participants were classified into three groups: no assault (41.1%), sexual coercion (35.6%), or attempted/completed rape (23.3%).

Results revealed that women who had experienced attempted or completed rape consumed more alcohol on a weekly basis, (approximately 14 drinks per week) than did non-victimized women (less than 9 drinks per week). In addition, sexually assaulted women were also more likely than non-victimized women to engage in sexual behavior after consuming alcohol.

Erickson and Rapkin (1991; reviewed above) also investigated the relationship between sexual assault and general alcohol consumption. When risk-taking behaviors were compared for students who had and had not experienced unwanted sex, those who had such experiences were more likely to report use of alcohol, as well as a drug or alcohol problem, as compared to students with no victimization experience. In addition, students who had an unwanted sexual experience scored higher on the substance use index than those who had no victimization experiences.

General alcohol consumption and sexual victimization in childhood, adolescence and adulthood was investigated by Gidycz, Hanson and Layman (1995) and was discussed previously in the revictimization section. In addition to investigating revictimization, Gidycz and colleagues also examined factors which may influence revictimization, including alcohol. Information regarding the quantity of alcohol typically consumed and the frequency of drinking to the point of intoxication were combined to form a composite measure. Path analysis examined the relationship among alcohol use, childhood, adolescent, and adult sexual victimization and other variables. A relationship ($r=.28$) was found between alcohol use and adolescent victimization (after age 14), however no relationship was found between alcohol use

and child victimization or adult victimization.

Fewer studies using a community sample were located which investigated the association between alcohol consumption and sexual assault. Two studies examined this relationship in homeless populations. D'Ercole and Struening (1990) examined victimization experiences among a representative sample of 141 homeless women in New York city. The majority (67%) of the participants were African-American, however information regarding ethnicity of the remaining participants was not reported. Information was obtained during interviews, which included questions regarding sexual and physical assault. Approximately 46% of the women reported being battered or physically abused, 43% reported being raped, and 23% reported being molested as a child by an adult. A history of sexual or physical assault was related to hospitalizations for alcohol or drug related problems. In addition, history of sexual or physical assault was a significant predictor of alcohol problems, and accounted for a unique 3% of the variance.

Padgett and Struening (1992) also investigated the relationship between victimization and mental health problems in a survey of 1,260 homeless adults in New York city. The sample included 949 men and 311 women, the majority of which were African American. Information regarding sexual assault and alcohol dependence was obtained from interviews. Approximately 10% of the women in this sample reported experiencing sexual assault. For women, sexual victimization was correlated with alcohol dependence ($r=.24$) as defined by DSM-III-R criteria and scores of the Short Michigan Alcoholism Screening Test ($r=.24$).

Kilpatrick, Acierno, Resnick, Saunders and Best (1997) examined the relationship between substance use and physical and sexual assault in a national probability sample of 3,006 women. Several hypotheses were investigated, including the theory that substance abuse leads to assault, the theory that assault leads to substance use, and the theory that substance use and assault have a reciprocal relationship. Information was obtained through structured telephone interviews. The longitudinal study spanned two years, and consisted of an initial interview, a follow-up interview one year later, and a final follow-up interview two years later. Women ranged in age from 18 to 34 years of age, and were predominantly Caucasian.

Kilpatrick and colleagues (1997) found that exclusive alcohol abuse (as opposed to alcohol abuse along with drug use) at time of the initial interview did not increase odds of new assault at either follow-up interview (one or two years later), even after controlling for the effects of demographic variables and assault history. However, the occurrence of a new assault between the initial interview and the two-year follow-up interview increased the risk of exclusive alcohol abuse at the two-year follow-up interview by 2.77, even after controlling for demographic variables, assault history and alcohol abuse at initial assessment. The hypothesis that alcohol abuse leads to assault was not supported, however, the theory that assault leads to alcohol abuse was supported. Although Kilpatrick and colleagues did not find evidence that exclusive alcohol use was a risk factor for adult assault, it is important to note that sexual and physical assault were included together as assault. Therefore, it is unknown whether a relationship between sexual assault only and alcohol abuse would

be supported in this study.

Conclusion: Alcohol consumption and adult sexual assault. The vast majority studies reviewed here found evidence that alcohol (both general consumption and use in the situation) may play a contributing role in the occurrence of sexual assault and rape. Overall, between 2.6% and 65% of women experiencing unwanted or forced sexual intercourse were using alcohol at the time of or before the assault. Although one study found very low rates, the majority of studies found that at least 30% (or more) of women experienced unwanted or forced sexual intercourse when alcohol was consumed. In addition, rape experiences were correlated with alcohol use in dating situations (Himelein, 1995), as well as with heavy intoxication by women in dating situations (Canterbury et al., 1993; Muehlenhard & Linton, 1987).

Despite the support for this relationship, several weaknesses in this body of literature can be identified. One obvious limitation of many studies is the focus on acquaintance or date rape experiences (e.g., Canterbury et al., 1993; Harrington & Leitenberg, 1994; Miller & Marshall, 1987; Mills & Granoff, 1992; Muehlenhard & Linton, 1987), while information regarding rape by strangers is omitted. Thus, much of the information presented here may not be generalized to women not in college settings or who were assaulted by a stranger. In addition, all studies (with the exception of Muehlenhard & Linton, 1987) do not include a comparison group of non-assaulted women who have also been consuming alcohol in a dating situation. Without such information it is not possible to determine whether alcohol use contributed to sexual aggression, as rates of drunkenness during sex among women

who were not sexually assaulted were not collected. However, only one study acknowledged this problem (Harrington and Leitenberg, 1994).

Assessment and definition of sexual assault is also important, as methods of assessment and definitions of abuse have an impact on prevalence rates, and ultimately, on who is considered abused. The definition of adult sexual assault was unclear in one study (e.g., Finley & Corty, 1993). In addition, many investigators (e.g., Canterbury et al., 1993; Miller & Marshall, 1987; Mills & Granoff, 1992; Ward et al., 1992; Yegidis, 1986) do not use standardized measures to assess adult sexual assault. Some developed their own questionnaires but fail to report information regarding psychometric properties. Finally, one study (Kilpatrick et al., 1997) combined information from both sexual and physical assault.

Finally, many of the studies presented here have obtained large samples, but some studies do have samples smaller than could be desired (e.g., Corbin et al., 1996; Finley & Corty, 1993). Findings from small samples may be biased and have limited generalizability. Generalizability is also affected by the large number of studies using college samples, while only one study was located which involved women from the community.

Despite these weaknesses, there appears to be ample evidence to assume that alcohol consumption is a risk factor for sexual victimization. Studies investigating use of alcohol in dating situations as well as those examining general alcohol consumption support this assumption. Recent research appears to have placed more focus on alcohol use in the situation rather than general alcohol consumption. This

may be problematic, however, as much research supports the idea that other factors (setting, perceptions of women who drink) related to general alcohol consumption may be more important than actual level of intoxication of the woman. Testa and Parks (1996) suggest that at least some of the risk of victimization associated with alcohol consumption among women may be explained by the setting in which drinking occurs, as well as men's perception of a woman who drinks. Thus, studies which focus on drinking in dating situations, while important, may fail to incorporate information regarding these other important factors which may help explain the relationship between alcohol consumption and sexual aggression. Future research will benefit from studies which include information regarding general alcohol consumption as well as use in specific situations.

Summary

Although no studies have been designed specifically to investigate the relationship between CSA, alcohol use and adult sexual assault, review of the empirical and theoretical literature supports the idea that a link between these three areas can be established. The association between CSA and adult sexual abuse or revictimization has some support. Studies designed especially to investigate revictimization would further substantiate this relationship. In addition to revictimization, alcohol abuse or dependence and problems with alcohol have been associated with a history of sexual abuse in childhood. This review provides evidence that women with CSA experiences are more likely than women with no CSA history to engage in heavy alcohol consumption as well as abuse alcohol.

In addition, numerous studies have established alcohol consumption as a potential risk factor for sexual assault. However, many of these studies concentrate on alcohol use in dating situations, while the risks of high levels of alcohol consumption in general are investigated less often. Failure to examine the importance of levels of drinking in general maybe detrimental, however. As discussed earlier, a woman who drinks alcohol can be at greater risk for sexual assault not simply because she is intoxicated on a date, but because she may frequent other situations which place her at greater risk due to the presence of intoxicated men. In addition, the effects of cognitive and motor impairment associated with alcohol intoxication makes women less able to detect and escape potentially dangerous situations.

As stated previously, considering alcohol use as a form of emotional avoidance has important implications for understanding the compulsive high-risk sexual behavior seen in some CSA victims. Individuals with a history of CSA may use drugs and alcohol while engaging in sexual activities in order to avoid intrusive or unpleasant affect and memories related to the abuse experience (Briere, 1992). However, because substance use impairs judgment regarding decisions to engage in sexual experiences as well as safe sexual practices, the end result may be higher risk for subsequent assault.

Thus, given that women with a history of CSA have been found to have higher levels of general alcohol consumption, and given that these women also have an increased probability for adult sexual assault, investigation of these three factors simultaneously appears warranted. As discussed previously, few theories regarding

the etiology of revictimization have been empirically tested. This study proposes, however, that high levels of general alcohol consumption by CSA victims may be one possible explanation for revictimization, as such behavior increases risk for sexual assault in adulthood.

Statement of Purpose

Given the weaknesses in previous studies it was the purpose of this study to examine the relationship between CSA and adult sexual assault, between CSA and alcohol use, between alcohol use and adult sexual assault, and between all three factors. Several hypotheses were tested. It was hypothesized that women who experience CSA would be more likely than women with no history of CSA to experience adult sexual assault by acquaintances and/or boyfriends, strangers and husbands. In addition, it was hypothesized that CSA survivors would have higher levels of general alcohol consumption and problems with alcohol than nonvictims. Similarly, it was hypothesized that adult sexual assault survivors would have higher levels of general alcohol consumption and problems with alcohol as compared to nonassaulted women. Finally, it was hypothesized that a history of CSA and the presence of alcohol problems would each predict adult sexual assault, but that when these factors were considered together even greater risk for adult sexual assault would arise.

This study was designed to provide a methodologically sound, well-controlled examination of these issues. First, this study employed a well-operationalized definition of CSA similar to that used by other researchers. In addition, commonly

used assessment measures were used to assess adult sexual assault and alcohol problems. This aided in comparison of this study's findings to previous research. The method used to detect CSA and adult sexual assault was also an improvement upon previous studies. Women were not asked if they have ever been raped or sexually abused, rather questions concerned actual unwanted sexual activities. Thus, a woman could be identified as experiencing CSA and/or adult sexual assault regardless of whether she considered herself to be a victim.

In addition, information regarding adult sexual assault included the relationship of the perpetrator to the victim, an improvement over the current literature. Many studies of sexual assault in college populations focus on acquaintance rape. However, rape by different perpetrators most likely does not always involve the same circumstances, factors or effects. Compared with stranger rape, acquaintance assault is more likely to occur indoors, to involve drinking by both parties, and to involve less violence but more verbal threats (Bownes, O'Gorman & Sayers, 1991). The acquaintance rapist is more likely to kiss the victim, verbally abuse her throughout the assault, commit rape repeatedly, and demand secrecy after the attack (Bownes et al.). However, contrary to the usual assumption that violence by strangers is more serious than assaults by intimates, research has also found that marital rape is often repetitive and accompanied by severe physical violence during sex (Koss et al., 1994). Thus, given previous research, it appears that the role of alcohol is different for sexual assault by different perpetrators, which necessitates the study of the alcohol - sexual assault relationship with different perpetrators. Although it is recognized that many

forms of sexual assault have an impact on the victim, this study focused on the effects of sexual assault in the form of unwanted intercourse to aid in comparing findings to the current literature.

This study extended findings in the current literature by investigating the association between sexual assault and general levels of alcohol consumption rather than alcohol use exclusively in the dating situation. Because it is commonly believed that it is drinking in a dating situation that is dangerous, other potentially risky behaviors associated with general alcohol use may be overlooked. For instance, women who drink heavily may be more likely to place themselves in potentially dangerous situations (e.g., being at bars alone, drinking with intoxicated men) more frequently than casual drinkers. Thus, even if a woman is not intoxicated, she may be at risk because of other situational variables influenced by her heavy alcohol use.

Use of an objective, valid and reliable questionnaire to measure alcohol consumption and problems with alcohol improved upon previous studies which did not use standardized measures. Further, control groups of nonvictims were used for comparisons regarding adult sexual assault and alcohol use, and statistical comparisons were conducted between these groups. This study improved on some found in the literature by obtaining a relatively large sample of college women. And, although generalizability of these findings may be criticized due to use of a college sample, investigation of these issues likely benefit from this type of sample given previous findings in the area of sexual assault and alcohol consumption. This study adds to the literature regarding the relationship between general alcohol use and adult

sexual assault, as the majority of studies have focused on alcohol consumption only in the dating situation. Finally, this study further extends previous findings by examining all three factors, CSA, problems with alcohol and adult sexual assault simultaneously, in contrast to previous studies which investigate the relationship between only two of these three factors. Findings from this study can be used to develop models to help explain the relationship between sexual violence in childhood and in adulthood.

III. METHOD

Participants

Seven hundred thirty-four women were recruited from psychology classes for a study examining the effects of childhood experiences on current adjustment and functioning. Class credit was given for participation in the study.

For purposes of this study, CSA was assessed using the Life Experiences Questionnaire (described below). CSA was assessed by a series of eight questions asking participants whether or not as a child (under age 17), they had any sexual experiences, and a number of specific follow-up questions about such experiences. Experiences range from someone exposing themselves to the participant, to having engaged in intercourse with someone. Subjects were 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. CSA was defined as contact abuse only (excluding noncontact experiences such as exhibitionism). In addition, the abuse must have met at least one of the following criteria: (1) abuse perpetrated by a relative, (2) greater than five year age difference between the victim and perpetrator, or (3) if less than five year age difference between the victim and perpetrator, threat or force is involved. In addition, participants were asked to indicate on the LEQ whether they believed their sexual experience was sexual abuse. Several participants reported experiences which did not meet the criteria described above, but labeled their experience as CSA. These women were also considered CSA survivors. With CSA

defined in this manner, 131 women were labeled as experiencing CSA, and 589 were labeled as nonvictims. An additional fourteen women failed to provide enough information to be classified and were excluded from analyses.

The 720 participants ranged in age from 17 to 49 years, with a mean age of 19.65 years (SD=3.53). Of these women, 92% reported they had never been married, 4.9% were currently married, 0.9% were cohabitating, and 2.3% were divorced or separated. The majority of the women in this sample were European American (84.3%), while 3.2% were African American, 1.4% were Hispanic, 6.5% were Native American, 3.3% were Asian or Asian American, and 1.3% included other groups such as Pacific Islander or reported belonging to two racial groups. Socioeconomic status was assessed using the two-factor index of social position (Myers and Bean, 1968) and ranged from upper to lower class, with the average participant falling in the middle class.

Measures

Life Experiences Questionnaire (LEQ). The LEQ is a self-report instrument which includes questions regarding demographic information, childhood sexual experiences and other potentially traumatic events (e.g. childhood physical abuse). Subjects were instructed to report all sexual experiences occurring to them before the age of 17. Experiences occurring after age 17 were reported on the corresponding adult sexual assault instrument described below. Thus, if abuse began before age 17 but continued after a subject's 17th birthday, the subject reported the abuse only on the Life Experiences Questionnaire, and not on the adult abuse measure.

The LEQ is a revised version of the Past Experiences Questionnaire (PEQ; Messner et al., 1988), a self-report instrument with demonstrated reliability. Two-week test-retest reliability on a sample of 145 women completing the LEQ is good (Long, 1998). Percent agreement on items related to the identity of perpetrator (intrafamilial versus extrafamilial, 94%, $\underline{X}^2(1)=26.83$, $\underline{p}<.0001$), duration of abuse (abuse lasting less than one month, between one and six months, longer than six months, 88%, $\underline{X}^2(4)=44.60$, $\underline{p}<.0001$), whether abuse was contact versus noncontact (97%, $\underline{X}^2(1)=16.99$, $\underline{p}<.0001$), self-perception of whether CSA was experienced (yes, no, not sure, 89%, $\underline{X}^2(2)=23.11$, $\underline{p}<.0001$), the nature of the sexual abuse (vaginal or anal intercourse, penetration of the vagina or anus by objects, oral-genital contact, genital fondling, nongenital fondling, 80%, $\underline{X}^2(16)=81.59$, $\underline{p}<.0001$), and presence or absence of force (71%, $\underline{X}^2(1)=6.45$, $\underline{p}<.01$) all indicate a reliable scale. Similar results are seen in reliabilities for items such as the age of onset of abuse ($\underline{r}=.99$, $\underline{p}<.0001$), the age of the perpetrator ($\underline{r}=.96$, $\underline{p}<.0001$), and the age difference between victim and perpetrator ($\underline{r}=.96$, $\underline{p}<.0001$).

Modified Sexual Experiences Survey (MSES). The Modified Sexual Experiences Survey (MSES) is a modified version of the Sexual Experiences Survey (SES; Koss & Gidycz, 1985) and was used to assess adult sexual assault status. This modified questionnaire asks a series of yes/no questions assessing whether or not specific types of sexual activities have been completed with the participant since the age of 17. Information regarding the relationship to the perpetrator as well as the method of coercion was assessed. Although several different forms of unwanted

sexual contact were assessed, only unwanted sexual intercourse was examined in the present study.

The modified SES extended the number of questions of the Koss and Gidycz (1985) version; experiences of unwanted sexual intercourse were explored in detail. Three items identical to those on the SES examine the different methods of coercion used by the perpetrator when unwanted sexual intercourse was experienced (e.g., continual arguments and pressure, misuse of authority, and threat or use of physical force). Unwanted sexual intercourse due to inability to consent due to alcohol use was also assessed, however, the phrasing of questions involving the use of alcohol or drugs were modeled after those used by Muehlenhard, Powch, Phelps, and Giusti (1992). Questions regarding other completed acts were included in the questionnaire that were not examined in this study. This questionnaire differs from that used by Koss et al. (1985) in that no questions were asked regarding attempted acts, rather only completed acts were assessed. The same set of 10 questions were administered three times to assess sexual assault by three different types of perpetrators, (e.g., stranger, acquaintance, husband).

Internal consistency of .74 (for women) has been reported for the SES, and the test-retest agreement rate between administrations one week apart was 93% (Koss & Gidycz, 1985). The accuracy and truthfulness of self-reports on the SES have been investigated. The Pearson correlation between a woman's level of victimization based on self-report and her level of victimization based on responses related to an interviewer several months later was .73 (Koss and Gidycz, 1985). In addition, only

3% of women (2 out of 68) who reported experiences that met legal definitions of rape were judged to have misinterpreted questions or to have given answers that appeared to be false.

Participants were instructed to report all experiences from the age of 17 to the present; however, if such experiences began before the age of 17 and continued after the respondent turned 17, then those experiences would be reported only on the LEQ, and not on the MSES. A participant was labeled as experiencing adult sexual assault if she reported unwanted vaginal or anal intercourse by any perpetrator due to continual arguments or pressure by the perpetrator, due to misuse of authority by the perpetrator, due to the woman's inability to consent given alcohol use, or due to threat or use of physical force by the perpetrator.

Michigan Alcoholism Screening Test (MAST). The Michigan Alcoholism Screening Test (MAST), developed by Selzer (1971), is a 25-item yes-no self-administered questionnaire. Questions concern the effects of alcohol upon the respondents' interpersonal relationships, work performance, and health. The individual's behavior and not the quantity of alcohol consumed is examined. Answers are weighted based upon their discriminating power and summed; the total score may range from 0 to 53. According to Selzer's validation studies, a score of zero to three is indicative of normal drinking, four indicates borderline drinking patterns suggestive of alcoholism, and a score of five or more indicates established alcoholism. A participant was labeled as having alcohol problems if her total MAST score was five or more, and was labeled as not having alcohol problems if her total MAST score was

three or less.

In a review of the validity and reliability of the MAST, Gibbs (1983) found that the average rate of agreement to actual diagnosis was 76%. In studies where the MAST was inaccurate, it tended to over-diagnose alcoholism. The average ratio of false positives to false negatives was approximately 3.5 to 1 (Gibbs, 1983). Gibbs reported that only tests internal consistency were available; alpha ranged from 0.83 to 0.93, the average was 0.87. However, others have reported test-retest reliability coefficients to be 0.86 or greater (Zung, 1982).

The MAST has been used with a variety of different populations. Although used extensively within the psychiatric community (Brady, Foulks, Childress & Pertschuk, 1982), it has been used with college students. Favazza and Cannell (1977) reported in one sample that approximately 19% of college students scored greater than 5 and 4% scored greater than 10; in another sample, 29% scored greater than 5 and 8% scored greater than 10.

In addition to the original MAST items, three questions were added to assess the frequency of drinking behavior, average quantity of alcohol consumed, and typical beverage consumed. To investigate frequency, respondents were directed to indicate on average how often they consume alcoholic beverages: never, less than three times per month, one-two times a week, three-four times a week, five-six times a week, or every day. Participants also indicated the average quantity of alcohol consumed by reporting the typical number of drinks consumed when they do drink. A drink was defined as one can of beer, one glass of wine, one mixed drink or one shot of liquor.

The respondent indicated the average number of beers, glasses of wine or wine coolers, mixed drinks or shots she consumed in one sitting. Information regarding frequency and quantity were combined to form a quantity-frequency index. This index was formed by multiplying frequency data with the average alcohol consumption total in order to approximate the average overall consumption per month. For example, if the respondent indicated that she never drank, then her consumption total was multiplied by zero for a quantity-frequency score of zero. If the respondent indicated that she drank approximately one to two times per week, her consumption total was multiplied by six (the mean of four times per month and eight times per month). If the respondent indicated that she drank three to four times per week, her consumption total was multiplied by fourteen (the mean of twelve times per month and sixteen times per month), and so on.

Procedure

All questionnaire data was obtained in group sessions conducted by psychology graduate students. After informed consent was obtained and confidentiality assured, participants completed the LEQ, MSES, and MAST. The LEQ and MSES were administered to participants in a fixed manner arranged to assess abuse chronologically from childhood and adulthood. The MAST was randomly arranged before and after the abuse questionnaires.

IV. RESULTS

Overall, 18.2% (N=131) of the women who participated reported experiences that met criteria for childhood sexual abuse. Of the 131 CSA survivors in the study, 52.5% reported abuse by a relative (intrafamilial abuse), while 47.5% reported extrafamilial abuse. Force or threats of force was reported by 39.2% of CSA survivors. With regard to the nature of abuse, 31.7% reported vaginal or anal intercourse, 2.4% reported penetration of the vagina or anus by objects, 12.2% reported oral-genital contact, 30.1% reported genital fondling, and 23.6% reported nongenital fondling. (Note. Women were classified according to the most severe level of contact experienced). When survivors were asked to indicate the length of abuse, 51.6% reported abuse lasting less than one month, 15.1% reported abuse lasting between one and six months, and 33.3% reported abuse lasting longer than six months. Age of onset of abuse ranged from two to sixteen years old, with the average age of onset being nine years old.

Rates of adult sexual assault revealed that 25.3% (N=176) of women reported experiencing unwanted sexual intercourse with an acquaintance, 2.3% (N=15) reported experiencing unwanted sexual intercourse with a stranger, and of women who had ever been married (N=47), 29.8% (N=14) reported unwanted sexual intercourse with a husband. When alcohol use by the victim was examined as a cause of the adult sexual assault, 10.1% (N=70) of women reported sexual assault by an acquaintance, 1.2% (N=8) reported sexual assault by a stranger, and 6.4% (N=3) reported sexual assault by a husband. Experiences which met the legal definition for

rape (unwanted intercourse due to force or threat of force, or due to inability to consent due to alcohol use) were also examined, and revealed that 12.8% (N=91) of the women reported experiencing rape by a boyfriend or acquaintance, 1.7% (N=12) reported rape by a stranger, and of women who had ever been married, 12.7% (N=7) reported rape by a husband. Rates of revictimization indicated that 6.6% (N=46) of the sample reported both CSA and acquaintance sexual assault, approximately 1% (N=5) reported both CSA and stranger sexual assault, and 14.9% (N=7) reported both CSA and husband sexual assault.

The CSA victimization groups were compared on several demographic variables and did not differ with regard to race, $X^2(5, N=718) = 7.79$, ns. However, a difference was found between victimization groups for marital status (never married versus ever married), $X^2(1, N=695) = 29.55$, $p < .001$. CSA survivors (19.7%) were more likely to have ever been married as compared to women with no history of CSA (5.3%). Differences were also found between victimization groups for age, $t(715) = 5.35$, $p < .0001$, such that CSA survivors were older (M = 21.1, SD = 6.10), as compared to nonvictims (M = 19.3, SD = 2.53), and for socio-economic status, $t(680) = 4.27$, $p < .0001$, such that CSA survivors (M=34.88, SD=15.84) reported lower socio-economic levels than nonvictims (M=28.85, SD=13.64). (Note. Higher scores indicate lower socio-economic status). Given the differences between victimization groups on martial status, age and socio-economic status, these variables were included in planned analyses as covariates if significant differences were found between victimization groups.

The adult sexual assault victimization groups were also compared on several demographic variables. Acquaintance assault survivors and nonassaulted women did not differ with regard to race, $\underline{X}^2(5, N=693) = 7.99$, ns. However, a difference was found between acquaintance assault victimization groups for marital status (never married versus ever married), $\underline{X}^2(1, N=670) = 25.62$, $\underline{p} < .001$. Acquaintance assault survivors (17.3%) were more likely to have ever been married as compared to nonassaulted women (5.0%). A difference was also found between acquaintance assault survivors and nonassaulted women for age, $\underline{t}(690) = 5.24$, $\underline{p} < .0001$, such that acquaintance assault survivors were older ($\underline{M} = 20.89$, $\underline{SD} = 5.36$), as compared to nonassaulted women ($\underline{M} = 19.28$, $\underline{SD} = 2.61$), and a trend difference was found for socio-economic status, $\underline{t}(656) = 1.75$, $\underline{p} < .08$, such that acquaintance assault survivors ($\underline{M}=31.78$, $\underline{SD}=14.06$) reported lower socio-economic levels than nonassaulted women ($\underline{M}=29.54$, $\underline{SD}=14.26$). (Note. Higher scores indicate lower socio-economic status).

Stranger assault survivors and nonassaulted women did not differ with regard to race, $\underline{X}^2(5, N=652) = 8.20$, ns. However, a difference was found between stranger assault victimization groups for marital status (never married versus ever married), $\underline{X}^2(1, N=630) = 19.90$, $\underline{p} < .001$. Stranger assault survivors (40.0%) were more likely to have ever been married as compared to nonassaulted women (7.6%). Similarly, a difference was found between stranger assault survivors and nonassaulted women for age, $\underline{t}(649)=7.77$, $\underline{p}<.0001$, stranger assault survivors were older ($\underline{M}=26.6$, $\underline{SD}=10.99$) as compared to nonassaulted women ($\underline{M}=19.54$,

SD=3.11). However, no difference was found between stranger assault survivors and nonassaulted women for socioeconomic status t(617)=0.89, ns (stranger assault survivors M=33.29, SD=14.68, nonassaulted women M=29.95, SD=14.19).

Husband assault survivors and nonassaulted women were not compared on marital status given that husband analyses included only women who had ever been married (N=47). No difference was found between women who had been sexually assaulted by a husband and nonassaulted women with regard to race, $X^2(5)=6.17$, ns, or with regard to socioeconomic status, t(40)=1.65, ns (husband assault survivors M=44.0, SD=12.45, nonassaulted women M=35.37, SD=16.24). A difference was found between women sexually assaulted by a husband and nonassaulted women for age, t(45)=2.27, $p<.03$, such that husband assault survivors (M=32.29, SD=8.64) were older than nonassaulted women (M=26.39, SD=7.92). Given that differences were found between survivors and nonassaulted women for sexual assault by different perpetrators, these demographic variables were included in planned analyses as covariates if significant differences were found between victimization groups.

CSA and Adult Sexual Assault

The relationship between CSA and adult sexual assault was examined to establish the presence of revictimization. It was hypothesized that CSA survivors would be more likely than nonvictims to experience unwanted sexual intercourse in adulthood. This hypothesis was tested by three 2x2 Chi Square analyses (CSA victimization status X presence versus absence of adult unwanted sexual intercourse), one for each type of perpetrator: acquaintance, stranger and husband. Results were

mixed. CSAS were more likely to report experiencing unwanted intercourse by a boyfriend or acquaintance, $\underline{X}^2(1, N = 695) = 10.62$, $\underline{p} < .001$. Approximately 36.8% of CSAS reported this experience as compared to 22.8% of nonvictims. However, no difference was found between CSAS and nonvictims for unwanted intercourse by strangers, $\underline{X}^2$ (1, N = 654) = 2.63, ns. Approximately 4.4% of CSAS reported unwanted intercourse by a stranger as compared to 1.9% of nonvictims. No difference was found for unwanted intercourse by a husband (this analysis included only women who had ever been married), $\underline{X}^2$ (1, N=47) = 0.23, ns. Approximately 33.3% of CSAS reported unwanted intercourse by a husband as compared to 26.9% of nonvictims.

It was also hypothesized that CSA survivors would be more likely than nonvictims to experience unwanted sexual intercourse due to inability to consent due to alcohol use. This hypothesis was tested by three 2X2 Chi Square analyses (victimization status X presence versus absence of adult unwanted sexual intercourse due to alcohol), one for each type of perpetrator: acquaintance, husband, and stranger. No differences were found between victimization groups for unwanted intercourse with strangers or husbands due to alcohol use, $\underline{X}^2(1, N=657) = 0.30$, ns, and $\underline{X}^2(1, N=47) = 0.17$, ns, respectively. Of CSAS, 1.8% reported unwanted intercourse by a stranger as compared to 1.1% of nonvictims, and 4.8% of CSAS reported unwanted intercourse by a husband as compared to 7.7% of nonvictims. However, a trend towards conventional levels of significance was found for unwanted intercourse with a boyfriend or acquaintance due to alcohol use, $\underline{X}^2(1, N=696) =$

3.18, $p < .08$, with 14.4% of CSAS reporting this experience as compared to 9.1% of nonvictims.

CSA and Alcohol Problems

The relationship between CSA and alcohol problems was examined. It was hypothesized that CSA survivors would have higher levels of alcohol-related problems than nonvictims. No differences were found between CSA survivors and nonvictims for any alcohol indices. When the total MAST score was compared for CSA survivors and nonvictims no difference was found between the groups, $t(692) = 0.47$, ns, (CSA survivors, $M=3.61$, $SD=3.88$; nonvictims, $M=3.45$, $SD=3.35$). Women were also categorized as having alcohol-related problems or as not having such problems based upon Seltzer's criteria (1971). However, no difference was found between victimization groups, $X^2(1, N=611) = .03$, ns. Approximately 31.6% of CSA survivors met criteria for alcohol problems as compared to 32.4% of nonvictims.

Related, it was hypothesized that CSA victims would consume more alcohol on a more frequent basis than nonvictims. This hypothesis was tested with several analyses. First, a 2x3 Chi Square analysis was conducted (victimization status X frequency of drinking alcohol - never, less than three times per month, once or more per week) to compare the frequency of alcohol consumption for CSA survivors and nonvictims; results revealed no difference between victimization groups, $X^2(2, N=698) = 2.06$, ns. Approximately 16.7% of CSA survivors and 22.4% of nonvictims reported never drinking, 47.6% of CSA survivors compared to 45.3% of

nonvictims reported drinking less than three times per month, and 35.7% of CSA survivors compared to 32.3% of nonvictims reported drinking at least once per week. Second, a t-test compared the amount of alcohol typically consumed as reported by CSA survivors and nonvictims; no difference was found between victimization groups, $t(663) = .90$, ns, (CSA survivors, $M=4.20$, $SD=3.94$; nonvictims, $M=3.87$, $SD=3.62$). Third, a t-test compared the quantity-frequency index scores for CSA victims and nonvictims; no difference was found between the victimization groups, $t(663) = 0.57$, ns, (CSA survivors, $M=21.40$, $SD=39.40$; nonvictims, $M=19.24$, $SD=36.70$).

Adult Sexual Assault and Alcohol Problems

The relationship between adult sexual assault and alcohol problems/general alcohol use was examined for assault by the three different types of perpetrators: acquaintances, strangers and husbands. Alcohol problems were investigated using the total MAST score, a consumption index, a frequency index and a quantity-frequency index. Women were also categorized as having alcohol-related problems or as not having such problems based upon Seltzer's criteria (1971).

When alcohol problems were examined for survivors of sexual assault by an acquaintance, results were mixed. No difference was found between assault survivors and nonassaulted women on the quantity-frequency index scores, $t(641) = 1.29$, ns (acquaintance assault survivors, $M=22.83$, $SD=38.98$; nonassaulted women, $M=18.50$, $SD=36.26$). Similarly, no difference was found between acquaintance assault survivors and nonassaulted women for rates of alcohol problems, $X^2(1,$

N=592) = .78, ns; 34.7% of acquaintance assault survivors reported alcohol problems as compared to 30.8% of nonvictims. However, a significant difference was found between acquaintance assault survivors and nonassaulted women for levels of alcohol consumption, $t(641) = 2.69$, $p < .01$ (acquaintance assault survivors $M=4.60$, $SD=3.39$; nonassaulted women $M=3.71$, $SD=3.75$), and a trend towards significance was found for total MAST scores, $t(676) = 11.84$, $p < .07$ (acquaintance assault survivors, $M=3.92$, $SD=3.69$; nonassaulted women, $M=3.34$, $SD=3.44$). In addition, survivors of acquaintance sexual assault also reported consuming alcohol on a more frequent basis than nonassaulted women, $X^2(2, N=675) = 13.51$, $p < .001$. Only 11.6% of survivors of acquaintance sexual assault reported never drinking as compared to 24.5% of nonassaulted women, 49.1% of acquaintance assault survivors reported drinking less than three times per month as compared to 44.6% of nonassaulted women, and 39.3% of acquaintance assault survivors reported drinking once a week or more as compared to 30.8% of nonassaulted women.

Given the significant findings above, relationships for continuous dependent variables were reanalyzed using analysis of covariance (ANCOVA) to control for the demographic variables of age, marital status and socio-economic status. No difference was found between acquaintance assault survivors and nonassaulted women for levels of alcohol consumption, $F(4, 586) = 1.21$, ns, once covariates were included in the model. The overall model examining problem drinking (total MAST scores) was significant when covariates were included, $F(4, 610) = 2.40$, $p < .05$, although the effect of victimization group was not. The only significant predictor was

age, $F(1, 610) = 5.48$, $p < .02$.

Alcohol problems were also examined for survivors of sexual assault by a stranger. No differences were found between survivors of stranger sexual assault and nonassaulted women for any comparisons, including the total MAST scores, $t(636) = .09$, ns (stranger sexual assault survivors, $M=3.60$, $SD=4.27$; nonassaulted women, $M=3.52$, $SD=3.52$), the total consumption of alcohol, $t(600)=.41$, ns (stranger sexual assault survivors, $M=3.57$, $SD=2.87$; nonassaulted women, $M=3.98$, $SD=3.70$), or the quantity-frequency scores, $t(600)=.97$, ns (stranger sexual assault survivors, $M=29.07$, $SD=57.83$; nonassaulted women, $M=19.32$, $SD=36.62$). No differences were found between survivors of stranger assault and nonassaulted women for alcohol problems, $X^2(1, N=561) = .01$, ns, 33.3% of stranger assault survivors had alcohol problems as compared to 32.1% of nonvictims; or for frequency of alcohol use, $X^2(2, N=634) = 1.49$, ns, 20% of assault survivors compared to 20.5% of nonassaulted women reported never consuming alcohol, 33.3% of assault survivors compared to 47.0% of nonassaulted women reported drinking less than three times per month, and 46.7% of assault survivors compared to 32.5% of nonassaulted women reported drinking at least once per week.

Lastly, alcohol problems were examined for survivors of sexual assault by a husband. Only women who reported ever being married ($N=47$) were included in these analyses. No differences were found between survivors of sexual assault by a husband and nonassaulted women for any comparisons, including total MAST scores, $t(45)=1.00$, ns (husband sexual assault survivors, $M=3.36$, $SD=4.52$; nonassaulted

women, M=2.24, SD=2.98), total consumption of alcohol, t(39)=1.53, ns (husband sexual assault survivors, M=4.41, SD=4.42; nonassaulted women, M=2.83, SD=2.26), or quantity-frequency scores, t(39)=.74, ns (husband sexual assault survivors, M=8.17, SD=8.55; nonassaulted women, M=5.76, SD=9.89). In addition, no differences were found between survivors of husband sexual assault and nonassaulted women for alcohol problems, $X^2(1, N=43) = .01$, ns, 15.4% of husband assault survivors had alcohol problems as compared to 16.7% of nonassaulted women; or for frequency of alcohol use, $X^2(2, N=43) = .63$, ns, 15.4% of husband assault survivors compared to 16.7% of nonassaulted women reported never consuming alcohol, 61.5% of assault survivors compared to 70% of nonassaulted women reported drinking less than three times per month, and 23.1% of assault survivors compared to 13.3% of nonassaulted women reported drinking at least once per week.

CSA, Alcohol Problems and Adult Sexual Assault

In order to investigate the relationship between CSA, alcohol problems and adult sexual assault, logistic regression analysis was conducted. Three analyses were conducted, one for each type of perpetrator: acquaintance, stranger, and husband. Adult sexual assault was the criterion variable and CSA status and the total MAST score were predictor variables. It was hypothesized that both CSA and alcohol problems would be significant predictors of unwanted sexual intercourse in adulthood.

In logistic regression, a model containing certain effects and/or patterns of interaction is specified. The goodness of fit of these models to the data was then

tested. A nonsignificant chi-square value indicates that the expected frequencies generated by the model are not significantly different from the observed frequencies in the actual data set; that is, a nonsignificant chi-square value indicates that the proposed model fits the data well. Goodness of fit was examined for each set of analyses.

The first model examined the relationship between CSA, MAST total scores and sexual assault by an acquaintance. Given the relationship between victimization groups and the demographic variables of age, marital status, and socio-economic status, these demographic variables were included in the analyses along with CSA status and total MAST score. The model for sexual assault by an acquaintance was found to generate expected frequencies that were significantly different than observed frequencies, $\underline{X}^2(424)=500.18$, $\underline{p}<.01$, indicating that the model did not fit the data well. Given this, data were not examined further.

The model was also examined for sexual assault by a stranger. Again, the demographic variables of age, marital status and socio-economic status were included in the analyses along with CSA status and total MAST score. The model for sexual assault by a stranger was not found to significantly differ from observed frequencies, $\underline{X}^2(403)=107.53$, $\underline{p}=1.00$, indicating that the model did fit the data well. The results of logistic regression indicated that the best fitting model included only the variable of age, $\underline{b}=-0.15$, $\underline{X}^2(1)=6.03$, $\underline{p}<.01$. Neither CSA victmization status nor the MAST total score were significant predictors of sexual assault by a stranger.

Lastly, the model was examined for sexual assault by a husband. Only women

who reported ever being married (N=47) were included in this analysis. Again, the demographic variables of age and socioeconomic status were included in the analyses along with CSA status and total MAST score. The proposed model for sexual assault by a husband was not found to significantly differ from observed frequencies, $X^2(37)=43.49$, $p=.21$, indicating that the model did fit the data well. However, no individual predictors reached conventional levels of significance. Demographic variables, CSA victmization status and the MAST total score were not significant predictors of sexual assault by a husband.

V. DISCUSSION

This study attempted to bridge the gap between the child sexual abuse literature and adult sexual assault literature by developing a model to explain revictimization. Evidence of child to adult revictimization was found for adult sexual assault by an acquaintance or boyfriend, although no evidence was found for revictimization by strangers or husbands. CSA survivors were also somewhat more likely than nonvictims to report that such experiences with acquaintances involved alcohol use. These findings replicate those currently in the literature and are similar to those obtained in previous studies at the same university (Messman-Moore & Long, 1997). Given that revictimization was found only for adult sexual assault by an acquaintance, it appears that consideration of the victim-perpetrator relationship is important when examining rates of child to adult victimization.

Preliminary analyses provided some evidence for a relationship between adult sexual assault by an acquaintance or boyfriend and alcohol consumption. However, differences found between victimization groups were no longer significant when demographic factors were considered. The link between adult sexual victimization by an acquaintance and difficulties with alcohol replicates findings of previous studies (Canterbury, Grossman & Lloyd, 1993; Corbin, Bernat, McNair & Calhoun, 1996; Erickson & Rapkin, 1991). No evidence for this relationship was found for sexual assault by a stranger or husband. Survivors of adult sexual assault by an acquaintance reported drinking at greater frequencies than nonassaulted women, consuming greater amounts of alcohol when they drank, and exhibiting greater numbers of alcohol-

related problems. Acquaintance assault survivors reported consuming an average of four and a half drinks as compared to nonassaulted women who consumed approximately three and a half drinks on average. Additionally, acquaintance assault survivors were more likely than nonassaulted women to report drinking on a weekly basis as compared to nonassaulted women, and were less likely to report never drinking alcohol as compared to nonassaulted women. These findings are similar to those obtained in other studies conducted with college women (Canterbury, Grossman & Lloyd, 1993; Corbin, Bernat, McNair & Calhoun, 1996; Erickson & Rapkin, 1991).

It should be noted, however, that when demographic variables were controlled, differences found between victimization groups were no longer significant. This may suggest that alcohol consumption is less important that other factors in determining whether sexual assault occurs. For instance, in the present study, demographic rather than adult victimization variables accounted for differences in the consumption levels and problems associated with alcohol use reported by assaulted and nonassaulted women. It may be that drinking problems of the nature assessed in this study are not often present in young college women and develop later in life. Thus, differences in alcohol-related problems and consumption levels may be relevant factors in sexual assault for older women. Age was correlated with adult sexual assault for all perpetrators, such that older women were more likely to experience adult sexual assault than younger women. These findings are similar to those of Urquiza and Goodlin-Jones (1994). Age may be important because it is associated with other

important factors often connected to sexual assault such as the setting in which drinking takes place. It can be assumed that women who are older are more likely to frequent bars, settings which increase risk for rape given that people are not well-acquainted and given the presence of young, intoxicated males (Fagan, 1993). In addition, older women likely have a higher number of dating and sexual partners than younger women, another risk factor for acquaintance rape. Marital status may also be important given the assumption that married women have been involved in long-term relationships, and may even have higher numbers of dating or sexual partners. Another interpretation may be that the level of consumption by the woman may not be as important as compared to factors such as a woman's frequency of drinking among intoxicated males which could increase likelihood of assault (Testa & Parks, 1996). In light of the present findings, it seems that level of alcohol consumption by a woman may be important only in the context of other factors.

Results of this study failed to provide evidence of a link between alcohol problems/alcohol consumption and CSA history. However, given there are mixed findings in the child sexual abuse literature regarding CSA and subsequent alcohol problems, it is not surprising that this particular relationship is a problematic link. In the only study located which examined this issue with college women (Sedney & Brooks, 1984), no difference was found between CSA survivors and nonvictims for alcoholism. Evidence for the relationship between CSA and alcohol difficulties is more strongly supported by community (Mullen et al., 1996; Peters, 1988; Silverman et al., 1996) and clinical samples (Briere & Runtz, 1987; Pribor & Dinwiddie, 1992;

Singer et al., 1989, 1994; Zierler et al., 1991). In fact, after examining the relationship between CSA and subsequent alcohol problems, Miller and colleagues (1993) concluded: "the connections may not be relevant to heavy drinking, *per se*. Rather these connections appear specific to alcohol-related problems of sufficient severity to require treatment" (p. 115). The findings of Pedersen and Skrondal (1996) support these conclusions.

Lack of support for the relationship between CSA and alcohol problems may also be due to the characteristics of a college sample, and the relatively high-functioning young women who participated. It is very likely that college women do not exhibit the degree of serious alcohol problems that might be found in older women from community or clinical samples. It is important to note that the majority of participants were freshman students, many of whom were not of legal age to drink alcohol, and many reported that they did not consume alcohol on a regular basis. In fact, 21.7% of women in this study reported never drinking alcohol, and almost half (45.5%) reported drinking less than three times per month. Thus, almost 70% of women in this study reported consuming alcohol on an infrequent basis. However, despite the relative infrequency of alcohol consumption in this sample, the levels of alcohol-related problems reported by these women are comparable to those found in other college populations. Overall, approximately 32% of women reported problems indicative of established alcoholism in this sample. Favazza and Cannell (1977) found rates of established alcoholism ranging from 19% to 29%. Thus, although 32% of women reported alcohol-related problems, the number of women with a severe level

of alcohol-related problems is substantially less than rates for community samples, which may prevent establishing a relationship between adult sexual assault and alcohol-related problems.

Finally, it was the purpose of this study to investigate the relationship between CSA, alcohol-related problems and later adult sexual assault experiences. Results of this investigation failed to provide support for the idea that the factors of CSA and alcohol-related problems additively predict women's adult sexual assault status. The inability to link the experience of childhood sexual abuse, alcohol problems and adult sexual assault may be due to investigation of alcohol use only, rather than alcohol and other substances. Many studies lump alcohol and drug use together as substance use. Many studies find that substance use, including drugs and alcohol, rather than exclusive alcohol use is a significant risk factor for sexual assault. Kilpatrick and colleagues (1997) have identified a reciprocal relationship between victimization and substance abuse (including drugs and alcohol), such that substance use increases risk for assault, and the experience of assault increases the likelihood of substance use. Drug use is often accompanied by alcohol use, and it may be that when the relationship is found between CSA and alcohol use or between sexual assault and alcohol use, drug use has not been screened, and many women identified as having alcohol difficulties are also using other substances. Thus the important factor may be substance use, rather than exclusive alcohol use. Thus, it may be that substance use, rather than alcohol use is the factor of importance, not only in the relationship with CSA, but also in relation to adult sexual assault.

Another factor which may preclude finding a relationship between CSA, alcohol-related factors and adult sexual assault is investigation of alcohol-related problems rather than alcohol consumption in other specific situations. Based on the theory of self-medication (Dansky, Brady & Roberts, 1994), one may speculate that CSA survivors who use alcohol to cope with anxiety and distress regarding past sexual abuse are likely to engage in alcohol use in situations which elicit such anxiety (i.e., the dating situation). Thus, assessing general levels of alcohol use and problems with alcohol in general may not identify problematic alcohol use in specific situations which generate anxiety. Similarly, many studies which find a relationship between adult sexual assault and alcohol use examine alcohol use in the context of a dating situation (Himelein, 1994; Muehlenhard & Linton, 1987; Ward et al., 1992), while this study primarily examined typical levels of general alcohol consumption. Women were asked whether they had experienced unwanted sexual intercourse due to alcohol use, however, specific information including alcohol consumption levels and degree of intoxication by the victim *in the assault situation* was not obtained in the current study. Related, another problem may be a focus on typical or average alcohol consumption by the woman. It is not unlikely that sexual assaults take place after a period of heavy binge drinking, thus even though the victim's *typical* level of alcohol consumption is low, victimized women may be more likely to engage in binge drinking. Thus, it may not be that general alcohol consumption, or even average level of alcohol consumption that is only important factor, but that consideration of periodic heavy drinking is needed as well.

It has been proposed that women with a history of CSA may use substances as a means to cope with negative emotions and psychological distress following sexual abuse in childhood (Briere, 1992, 1997; Polusny & Follette, 1995). As the purpose of this paper suggests, adult sexual assault has been associated with increased substance use. Studies typically find higher rates of alcohol-related problems and consumption among CSA survivors, but ignore revictimization status. However, given the absence of a relationship between CSA and alcohol problems in the present study and the link between alcohol problems and adult rape, it may be speculated that the problems and difficulties with alcohol exhibited by sexually assaulted women is a consequence of the adult sexual assault rather than a precursor and/or risk factor for such an assault. Of course, it is not unlikely that the difficulties with alcohol could originate following CSA and persist after the adult assault (Burnam et al., 1988). However, this does not appear to be the case in this study given that no relationship was substantiated between the experience of CSA and alcohol difficulties. The findings here are similar to those of Kilpatrick and colleagues (1997) who failed to find evidence that alcohol abuse leads to assault.

Although theoretically alcohol and substance use are tied to sexual victimization both in childhood and adulthood, results of this study may suggest that such use may not be the important factors to explain why revictimization occurs. Other factors, perhaps general risk-taking behaviors or low self-esteem, may be important to help explain revictimization. In addition, other sequelae of CSA may be helpful to investigate as possible links between child and adult victimization, such as

dissociation, or the impact of CSA on learning history which may result in inappropriate dating and sexual behaviors, acceptance of rape myths, and sex-role stereotypes. In the present study, alcohol factors were important in the case of sexual assault by an acquaintance, but were not important for assault by a stranger or husband. Given this, the relationship between assault victim and perpetrator also appears important when searching for possible explanatory factors. Finally, identification of risk factors for revictimization may be aided by examination of victim selection techniques by the perpetrators of sexual violence.

Despite the failure to demonstrate relationships between the factors of interest, this study improved upon previous methodology in the literature in several ways. First, a well operationalized definition of childhood sexual abuse similar to those used by other researchers was used. In addition, a well-standardized and widely used assessment measure, the Sexual Experiences Survey (SES) was modified and used to detect adult sexual assault. The Michigan Alcoholism Screening Test (MAST), also a well-standardized measure with established reliability and validity, was used to identify alcohol problems. The study of adult sexual assault was also improved by investigating unwanted sexual intercourse with different perpetrators (acquaintances, strangers and husbands) in order to examine the effect of alcohol factors for each type of assault. This study also improved upon past research by obtaining a large sample size as well as using a control group of nonvictims for statistical comparisons.

However, despite these strengths and improvements upon previous literature, several limitations of the present study can be identified. It is important to note that

the correlational design of the present study prevents causal interpretation of findings. Alcohol use could be a precursor or consequence of sexual assault in adulthood, and only prospective designs can examine the role of alcohol more closely. Retrospective reporting of CSA and adult sexual assault can be problematic given that participants may be unable to remember instances of abuse or may inaccurately recollect such experiences given more recent life experiences. This study is also limited in generalizability by its population of college students who are predominantly young and European American. The young age of respondents in this sample may be particularly problematic given the focus on revictimization. Because adult abuse was assessed for only a three year period for many of the participants (the average participant was approximately twenty years old and adult sexual assault was assessed from age 17), relatively little time had passed during which alcohol-related problems could develop or an adult assault could have taken place. However, findings in the literature of sexual assault indicate that college populations are appropriate for study of sexual assault and its effects given the high rates of assault (particularly for acquaintance rape) for college-aged women (Benson, Charlton, & Goodhart, 1992). Despite this, studies of revictimization would likely benefit from use of community samples with participants who are older.

In addition, although minority groups were represented in this sample, they were not represented adequately. Generalizability is also affected by the college sample. It may be assumed that college women are relatively high-functioning given their status as a college student. Thus, the present findings may not be applicable to

women in the general community or within clinical samples. Finally, examination of sexual assault by a husband was limited given the small sample of women who had ever been married. It is unclear whether significant differences would be found between victimization groups if a larger sample of women who had ever been married was obtained.

Although limitations exist, the results of this study have implications in the clinical realm. Clinicians must be aware that survivors of CSA are at increased risk for sexual assault in adulthood, especially by acquaintances, and realize that heightened psychological distress may arise from repeated assault experiences (Messman-Moore, Long & Siegfried, 1998). Education and prevention with survivors of sexual assault in childhood and adulthood is necessary. Mental health professionals must be aware that alcohol could be a factor as a precursor but especially as a consequence of sexual assault in women. It is not unlikely for victims of assault to use alcohol as a means to cope with negative emotions and psychological distress (Briere, 1992, 1997), and professionals should help these women become survivors by teaching more adaptive coping strategies. Therapists also need to address the issue of self-blame with assault survivors, especially if the victim's alcohol use was a factor during assault. Janoff-Bulman (1979) proposed that there are distinct types of self-blame. Behavioral self-blame focuses on behavior, while characterological self-blame focuses on character or personality. It can be conceded that one is more able to control and change behavior than one's character traits. Thus, it is behavioral self-blame in the absence of characterological self-blame that is adaptive and should be

promoted by the therapist (Janoff-Bulman & Thomas, 1989), especially if the victim's alcohol use is a contributing factor to the sexual assault.

The present findings have important implications for future research. Investigation of possible explanatory variables involved in revictimization has recently become a focus of researchers in the area of victimization (Gidycz et al., 1995). Researchers should continue to make efforts to answer the question, "Why does revictimization occur?" Given that a relationship between the experience of childhood sexual abuse and alcohol problems was not substantiated in this study, future research should focus on this question with women from a community sample. Community samples are important given their relative heterogeneity as compared to college samples, including a wide range of participant life experiences as well as characteristics such as age, marital status and socio-economic level. If the relationship between CSA and alcohol problems is still not found in a sample of community women, focus may need to shift from the importance of alcohol to a broader range of substance use. Of course alcohol, and even substance use, may not be the important factors to explain why revictimization occurs. Other factors, perhaps general risk-taking behaviors or low self-esteem, may be important to help explain revictimization. In addition, other sequelae of CSA may be helpful to investigate as possible links between child and adult victimization, such as dissociation, or the impact of CSA on learning history which may result in inappropriate dating and sexual behaviors, acceptance of rape myths, and sex-role stereotypes. Findings here also indicate that future research needs to consider the relationship between assault

victim and perpetrator when examining explanatory and risk factors. In the present study, alcohol factors were important in the case of sexual assault by an acquaintance, but were not important for assault by a stranger or husband. Certainly there is reason to believe that assaults perpetrated by acquaintances, strangers and husbands would involve very different circumstances and factors.

Of course future research needs to focus not only on the victim of sexual assault, but the perpetrator as well. Investigations have examined and should continue to focus on factors related to sexual assault perpetrators including their knowledge of sexual assault, beliefs regarding interpersonal violence and behaviors and personality characteristics of rapists. The responsibility for such behavior should always lie with the perpetrator of violence, and not with the victim. Investigating victim behavior or factors that may help explain the relationship between childhood sexual abuse and adult sexual assault is not meant to blame her for violence she has experienced. Rather, it is hoped that through acknowledging CSA as a risk factor for sexual assault, and identifying other risk factors, women may be able to prevent the occurrence of future victimization. However, it is recognized that no amount of preventative action by women will totally stop interpersonal aggression until men come to understand the repercussions of such violence. Ultimately the goal is not to prevent future assaults or to help victims cope with the effects, but to educate society that violence against women and children is not acceptable.

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APPENDIXES

APPENDIX A

IRB Form

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

Terri L. Messman Moore

Candidate for the Degree of

Doctor of Philosophy

DISSERTATION: ALCOHOL USE BY SURVIVORS OF CHILD SEXUAL ABUSE: ONE POSSIBLE EXPLANATION FOR REVICTIMIZATION

MAJOR FIELD: Psychology

EDUCATION

1992 B.A. University of Nebraska-Lincoln. Major: Psychology.

1994 M.S. Oklahoma State University. Major: Psychology (Clinical). Thesis: Child sexual abuse and its relationship to revictimization in adult women. Major Advisor: Patricia J. Long, Ph.D.

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PROFESSIONAL MEMBERSHIPS

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Southwestern Psychological Association, Student Affiliate
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