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Childhood Sexual Abuse as an Antecedent of Problem Drinking and Sexual Dysfunction in Women

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CHILDHOOD SEXUAL ABUSE AS AN ANTECEDENT OF PROBLEM DRINKING AND SEXUAL DYSFUNCTION IN WOMEN

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This dissertation meets the standards for appearance, conforms to the style and format requirements of the Graduate School of the University of North Dakota, and is hereby approved.

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Date 10-8-91

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ABSTRACT

A number of studies have linked childhood sexual abuse to problems with alcohol and sexual dysfunction in adult women. Moreover, some researchers suggest temporal sequences in which either (a) early sexual abuse increases women's risks of sexual dysfunction, which in turn leads to increased alcohol use, or (b) the reverse, in which sexual abuse contributes to excessive drinking, which in turn impairs sexual functioning.

Most studies of these issues to date have had serious methodological problems (e.g., small samples, often from clinical populations lacking control groups). Additional limitations have been the limited range of variables measured and the lack of longitudinal data.

This study was designed to overcome many limitations of earlier research. The study attempted, first, to determine if there is an association between childhood sexual abuse and adult alcohol abuse and sexual dysfunction in women, and, second, to test two potential temporal sequences of this relationship using path analysis. Subjects were 143 problem drinkers and 157 nonproblem drinkers from a large national sample of women in the U.S. The longitudinal data were gathered in 1981 and 1986 via structured personal

interviews and private questionnaires for information of a more sensitive nature (e.g., sexual experience and sexual abuse).

Results indicate that child sexual abuse predicts adult problem drinking and to a lesser degree sexual dysfunction. However, the temporal sequences among these variables are less clear. Child sexual abuse was a stronger predictor of both 1981 and 1986 problem drinking and 1986 sexual dysfunction among nonproblem drinkers than among problem drinkers. Often lacking a direct effect of its own among problem drinkers, child sexual abuse did predict a number of mediating variables (e.g., depression, suicidal thoughts or attempts, distrust, early sexual relations), some of which led to problem drinking in 1981. A surprising finding was that among problem drinkers, problem drinking in 1981 led to less sexual dysfunction in 1986 rather than more. Differences in predictors of problem drinking onset as compared with chronicity were discussed as a possible explanation for the different patterns among nonproblem and problem drinkers.

CHAPTER I

INTRODUCTION

Recent studies suggest that, even using a relatively conservative definition of sexual abuse, well over one-third of the female children in the United States have experienced sexual abuse by age 18 (D. Russell, 1983; Wyatt, 1985). These early traumatic experiences appear to put women at risk for a variety of longterm consequences, including depression, anxiety, low self-esteem, suicidal behavior, involvement in conflicted or violent relationships, revictimization in adulthood, and others (S. Russell & Wilsnack, 1991).

The study reported here focuses on two additional potential longterm consequences of childhood sexual abuse: alcohol abuse and sexual dysfunction. Findings of clinical studies and a more limited number of general population studies--reviewed in detail in the next chapter--suggest a connection between childhood sexual abuse and adult alcoholism, and between childhood sexual abuse and adult sexual dysfunction. Some authors (e.g., Hayek, 1980) have suggested that early sexual abuse may increase women's risks of sexual dysfunction, which in turn is "self-medicated" by alcohol. However, the reverse sequence is also

hypothetically possible, in which sexual abuse contributes to excessive drinking which in turn impairs sexual functioning. Undoubtedly self-reinforcing cycles can then develop in which heavy drinking used to cope with sexual distress can lead to further deterioration of sexual functioning (Wilsnack, 1984).

Most of the studies of these relationships to date have had serious methodological limitations. Clinical studies of alcoholic women or sexual abuse victims in treatment have typically involved small numbers of women in treatment for multiple, relatively severe problems. The small sample sizes and the frequent lack of control groups limit the reliability and representativeness of the results of these studies. Furthermore, the fact that multiple problems (e.g., alcohol abuse and sexual dysfunction) have frequently been interacting in complex ways over a long period of time at the point when women seek treatment, makes it difficult to determine temporal sequences and cause-effect relationships important for treatment and prevention.

The few available studies of relationships between childhood sexual abuse and adult alcohol abuse or sexual dysfunction among women in the general population have, for the most part, involved community or regional samples (two of the most important have been conducted in California), with unknown generalizability to other geographic regions. Additional problems have been the limited range of variables

measured, and the lack of longitudinal data on possible changes in effects of childhood sexual abuse, or possible interactions with other mediating or moderating variables, over time.

The present study was designed to overcome many limitations of earlier research. The data came from a relatively large sample of women from throughout the United States, increasing the generalizability of conclusions. The longitudinal design of this study permits exploration of temporal/causal relationships that could not be analyzed in earlier cross-sectional studies. Finally, the large longitudinal data set contains measures of an unusually broad range of demographic, personality, social-environmental, and life-historical variables, allowing the examination of not only simple relationships among childhood sexual abuse, adult sexual dysfunction, and adult alcohol abuse but also more complex configurations that include additional background and mediating variables that may alter the interrelationships among the three primary variables of interest.

Experimental Hypotheses

The major aim of this study, then, was to determine if there is an association between childhood sexual abuse and adult alcohol abuse and sexual dysfunction in women. If such associations were established, the second aim was to test two possible temporal relationships among childhood

sexual abuse, alcohol abuse, and sexual dysfunction. The primary hypotheses to be tested were:

1. Early experiences of sexual abuse predict adult alcohol abuse, and
2. Early experiences of sexual abuse predict adult sexual dysfunction.

Since each of these hypotheses received some support, two additional hypotheses were tested:

3. Early sexual abuse predicts adult sexual dysfunction, which predicts subsequent alcohol abuse, and
4. Early sexual abuse predicts adult alcohol abuse, which predicts subsequent sexual dysfunction.

Due to the time-ordered nature of Hypotheses 3 and 4, path analysis (designed specifically to handle such data) was the statistical method chosen to investigate these relationships. (See Method section, Subsequent Stages of Data Analysis, for a description of path analysis.)

Hypotheses (3) and (4) are illustrated in path models A and B in Figure 1.

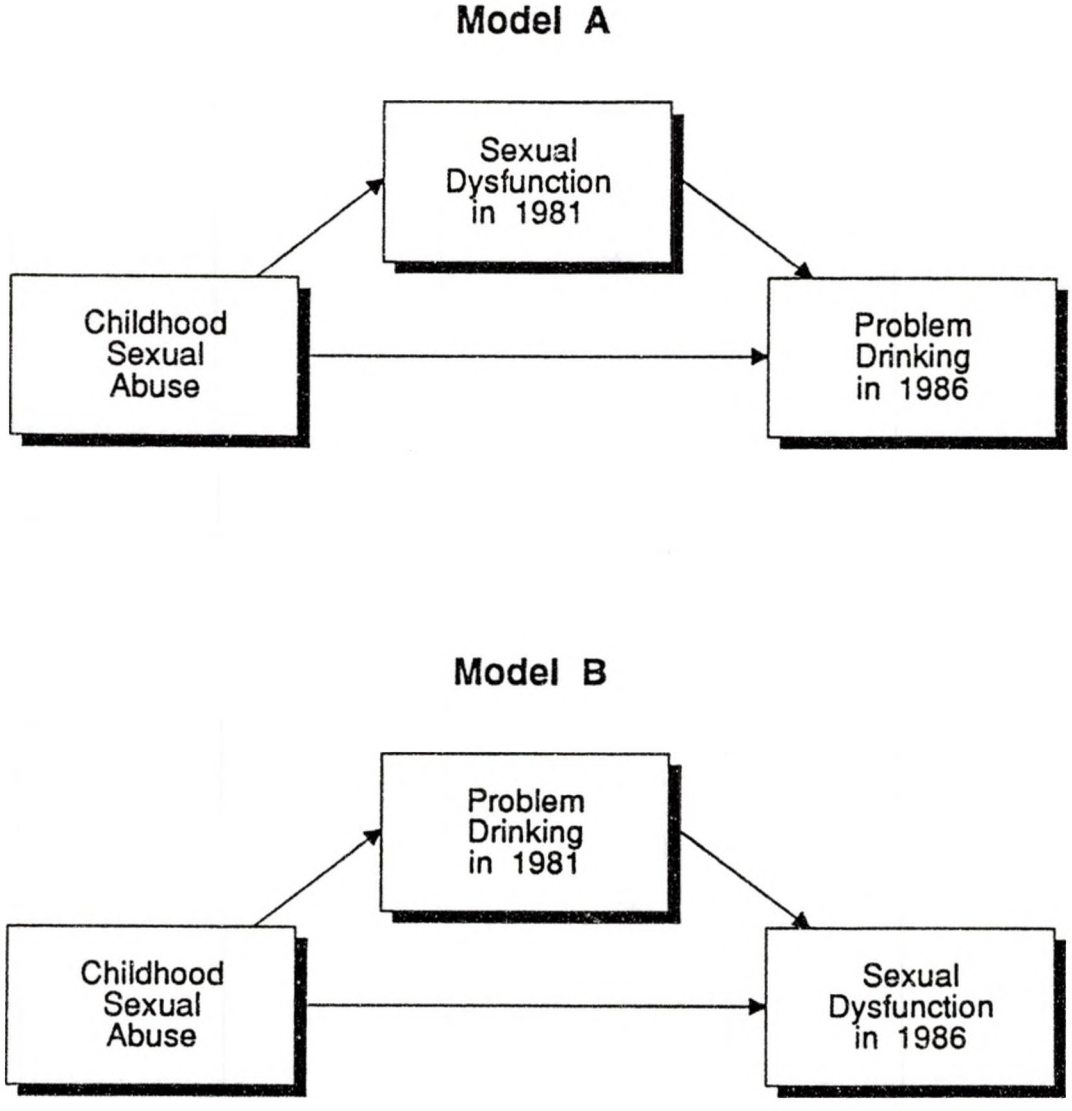

Figure 1. Path Analytic Models of Childhood Sexual Abuse to be Compared in Predicting 1981 Sexual Dysfunction and 1986 Problem Drinking, and Predicting 1981 Problem Drinking and 1986 Sexual Dysfunction.

CHAPTER II

LITERATURE REVIEW

Prevalence and Problems of Definition of Child Sexual Abuse

The incidence of childhood sexual abuse among alcohol dependent women appears to be substantially higher than those rates found in the general population (Wilsnack, 1984), suggesting that being sexually abused in childhood may increase women's risks of subsequent alcohol abuse. This finding being rather recent, it is the objective of this section to review the significant literature addressing this finding and the literature which attempts to discover the reasons why the experience of child sexual abuse might predispose a woman to alcohol abuse. In other words, what are the intervening variables, if any, between the experience of child sexual abuse and the development of alcohol abuse in adult women?

Child Sexual Abuse: Problems of Definition

The definition of child sexual abuse varies widely among researchers. Many factors must be taken into consideration, among which are: the relationship of the perpetrator to the child (family member vs. nonfamily member; acquaintance vs. stranger); the age difference between the perpetrator and the child (the standard age

difference is five years in order to be classified as adult-to-child abuse); whether or not the abuse involved force or violence; whether the abuse involved actual sexual contact vs. voyeurism, exhibitionism, or propositions; whether and when the sexual abuse caused distress (at the time of the abuse or later in life), and if so, how much distress and how long-lasting it was.

Many studies of child sexual abuse are weak methodologically, and failure to define the term clearly is one of these flaws. Even if the term is clearly defined, the numerous definitions used in different studies make comparisons difficult. Other flaws include the small numbers of subjects, usually from clinical samples, and the lack of control groups. These flaws make comparisons across studies and interpretation of already questionable results difficult.

Efforts have been made to minimize definitional ambiguities when describing studies within this dissertation. The terms "childhood sexual abuse" and "child sexual abuse" as used here refer to a category which includes both extrafamilial and intrafamilial sexual abuse experiences. The term "incest" refers specifically to intrafamilial sexual abuse.

Prevalence of Child Sexual Abuse in the General Population

The apparent rate of childhood sexual abuse in the United States is substantial. As studies become more

rigorous, the numbers go up rather than down. In a well-designed and rigorous regional study, Diana Russell (1983) used trained female interviewers and a conservative definition of childhood sexual abuse which included only physical contact experiences. She found that 38% of the women in a random San Francisco sample (with all races represented proportional to their population distribution in the area) had had at least one experience of childhood sexual abuse before the age of 18. When she expanded her definition to match those of several other researchers and included unwanted noncontact sexual experiences, such as exhibitionism and sexual advances or propositions that did not involve actual sexual contact, 54% of the respondents reported at least one sexual abuse experience before the age of 18.

Russell obtained these results while using a conservative definition of extrafamilial child sexual abuse which excluded teenage girls' common experiences of unwanted petting and intercourse in dating situations. However, because sex between relatives is taboo in this culture, unwanted petting and intercourse with relatives reported by fourteen- to seventeen-year-old girls were included in the definition of incestuous abuse. Sixteen percent of the sample of 930 women reported at least one experience of incest before the age of 18. Twelve percent of the sample had been abused by a relative before the age of 14.

Wyatt (1985), using rigorous methods similar to Russell's, including well-trained female interviewers matched carefully by demographics to the interviewees, attained similar estimates of childhood sexual abuse from a random sample of white and Afro-American women in the Los Angeles area. Forty-five percent of the women in this sample reported at least one experience of sexual abuse involving sexual contact before the age of 18. Twenty-one per cent reported sexual abuse by a family member before the age of 18. When Russell adjusted the age range of her sample to match the age range of the women that Wyatt studied (18 to 36 years old), Russell's and Wyatt's rates were strikingly similar (D. Russell, 1986), with no more than a three percent difference between their findings.

The only study with a representative national sample, conducted via telephone interviews by the Los Angeles Times in July of 1985, obtained a prevalence rate of 27% for sexual abuse occurring before the age of 18 (Timnick, 1985). This falls well below both Russell's and Wyatt's figures, especially since the L.A. Times included noncontact sexual experiences in their definition. Yet Russell believes that this figure is remarkably high considering the under-reporting that is known to occur with telephone interviews (Peters, Wyatt, & Finkelhor, 1986; D. Russell, 1986).

Some mention should be given to Alfred Kinsey's (1953) estimates for the prevalence of child sexual abuse since his

study was national in scope and has been influential. Kinsey found that only 2 to 3% of his sample had experienced incestuous abuse before the age of 14, and 24% had experienced any type of child sexual abuse (extrafamilial or intrafamilial abuse) before the age of 14. Both statistics include noncontact experiences. Kinsey's results are questionable for several reasons, including the use of all white, predominantly middle-class volunteers rather than a random sample. According to Herman (1981) and D. Russell (1986), the strongest reason for questioning the validity of the Kinsey study is its demonstrated bias against recognizing incest as abusive. According to these scholars, Kinsey's minimization of childhood sexual abuse can be seen in his choice of words. For example, he appeared to prefer the term "sexual contact" to sexual abuse or incest; and he referred to the adults as "partners" who "approached" preadolescent girls rather than as perpetrators. He also used all male interviewers and devoted only a fraction (6 pages, according to D. Russell) of the 761-page text of Sexual Behavior in the Human Female (1953) specifically to adult-child sexual contacts.

Clearly, a well-informed, well-designed national prevalence study is still necessary in order to provide the most accurate estimate of the rates of child sexual abuse in this country. However, given their methodological superiority to the available national study, it appears that

Russell's and Wyatt's regional studies provide our most accurate prevalence estimates at this time. Russell's is probably most useful because her results are based on a representative regional sample, which would more closely approximate the make-up of the general population than would Wyatt's, which was purposefully designed to study Afro-American and white women only.

Prevalence of Child Sexual Abuse Among Alcohol Dependent Women

Prevalence of Child Sexual Abuse in Alcohol Treatment Populations

A relationship between alcohol use/abuse in adult women and a history of childhood sexual abuse has been suggested by clinicians' anecdotal evidence, informal surveys, and small studies in the middle to late 1970's. Only very recently have there been attempts at more systematic investigations to confirm this relationship.

One of the first systematic studies of this sort was conducted by Benward and Densen-Gerber in 1975. The investigators surveyed young women in treatment for alcohol and other drug abuse at residential therapeutic communities over a seven-state region and found that 44% reported a history of incest. Another study (Weber, 1977) found that 70% of 500 drug-abusing adolescent females in treatment reported having been sexually abused as children.

In 1979, Hammond and colleagues reported that 40% of 44 middle- and late-stage female alcoholic outpatients (11% nonwhite) reported a history of incest. For the purposes of their study they defined incest as "sex play with a relative." They also reported that 39% of their sample had been raped as adults.

Similarly, Murphy and colleagues (1980) found that 54% of 74 women alcoholics from several inpatient and halfway house facilities reported being raped either as a child or as an adult. They do not distinguish how many of these 74% were childhood sexual abuse victims. The women in the total sample were primarily white (23% nonwhite) and from lower-middle socioeconomic groups.

One of the first studies to use a control group was reported by Covington in 1982. She matched 35 alcoholic women with 35 nonalcoholic controls on age, education, marital status, and educational background. Subjects were 70 middle-class, Caucasian-American women from San Diego and Orange Counties in California, with an average age of 38. Alcoholic subjects were volunteers from Alcoholics Anonymous (AA) groups and recovery and hospital treatment programs. Covington found that 34% of the 35 alcoholic women had a history of incest as compared to 17% of the 35 controls. She also found that overall 74% of the alcoholic women reported at least one sexual abuse experience, either rape,

molestation, or incest, compared to 50% of the nonalcoholic controls.

In addition to the prevalence of sexual abuse, Covington also studied physical and emotional abuse, as well as the severity of abuse. She found that the alcoholic women's experience of abuse tended to differ in quantity, quality, and extent from that experienced by their nonalcoholic counterparts. The alcoholic women sexually abused as children had a wider variety of perpetrators; experienced more occasions of abuse; had more multiple instances; and endured the abuse for longer periods of time than did the control group.

Covington cites several informal surveys of female substance abusers done in 1982 which corroborate her own results. At an Eagleville, Pennsylvania, treatment program, 73% of women in treatment reported having been sexually abused (rape, incest, and molestation), while 47% reported a history of incest. At Phoenix General Hospital in Arizona, 63% of the women in treatment for substance abuse reported either rape or incest before the age of 14.

Another study was conducted by Schaefer and Evans at Chrysalis, an outpatient chemical dependency treatment program for women in Minneapolis. Staff members reported that 53% of the 75 women entering treatment over a two-year period had experienced incest or other childhood sexual abuse prior to age 21 (Evans & Schaefer, 1980; Schaefer &

Evans, 1982). The authors also report earlier informal surveys of Minnesota chemical dependency treatment centers which found the incidence of incest to be 40 to 50% among their clientele. These same authors joined with a third (Sterne, Schaefer, and Evans, 1983) in a more elaborate study involving a control group. They found that 39% of the sample of 100 chemically dependent women reported histories of incest, compared to 24% of a control group.

Roth and colleagues (1981) found that 12% of 65 outpatients in a women's alcoholism treatment program in rural Maine reported a history of incest. Twenty-nine percent reported having been raped. Galbraith (1982) notes that additional women in this sample acknowledged incest and rape later in treatment despite negative responses during the intakes. Perhaps this disclosure was prompted by growing trust in their alcohol counselor.

A study by Kovach (1983) of 117 women volunteers from Alcoholics Anonymous in the greater Detroit area found that 29% had experienced incest. Kovach defined incest 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" (p.35). (Other than this distinct category, nonfamilial childhood sexual abuse statistics were unfortunately not gathered.) She defined

alcoholism as "participation in Alcoholics Anonymous, i.e., self-description by the subjects" (p.35). Six of the 117 women could not remember if they had a history of incest or not.

Kovach's study was designed primarily to investigate post traumatic stress disorder as a possible link between incest and the development of alcoholism. She found sufficient evidence to investigate this linkage further: almost 40% of the alcoholic women with childhood incest histories could be classified as having post traumatic stress disorder.

More recently, Rohsenow et al. (1988) found that 77% of women in treatment for alcohol dependence reported a history of incest or other childhood sexual abuse. Subjects were adult women admitted to an inpatient chemical dependency rehabilitation program in Maine between January and March of 1986. For the same period of time and using the same definition of childhood sexual abuse, 70% of the adolescent females admitted to the Maine program reported childhood sexual abuse.

Rohsenow and colleagues, unlike many investigators, made their definition of childhood sexual abuse explicit. Their definition was purposefully conservative and required that: contact was physical as opposed to exposure or verbal requests; the abuse occurred at age 16 or younger; the perpetrator was at least five years older or in a more

powerful position than the victim; the abuse was experienced as dysphoric at the time or later; and subjects did not experience the event as having been resolved in some way during childhood (e.g., having been protected in some way).

It is noteworthy that Rohsenow and colleagues report that unsystematic inquiry about childhood sexual abuse in women in chemical dependency treatment yielded a much lower rate (20%) than the rate (77%) acquired by routine, systematic inquiry over time, sometimes well into therapy. Adding credibility to this finding of increased rates of disclosure with more inquiry is a study by Peters and colleagues (Peters, Wyatt, & Finkelhor, 1986) which found that the different methods of inquiry into a history of childhood sexual abuse accounted largely for the wide variation in reported occurrence.

One of the best-designed studies of childhood sexual abuse to date was carried out by Miller and colleagues (Miller, Downs, Gondoli, & Keil, 1987). Using carefully trained interviewers in face-to-face interviews, these investigators found that 67% of the women in their alcoholic sample had experienced childhood sexual abuse, compared to 28% of a nonalcoholic control group. Like Rohsenow et al., they stated their definition of childhood sexual abuse clearly. It included "any unwanted sexual contact [physical as well as nonphysical invitations or exposure] with a person at least five years older than the respondent, or

with any family relative, regardless of age difference" (p.157).

The alcoholics in this study were 45 women identified through women's treatment groups at alcoholism outpatient treatment agencies and through AA groups in Erie County, New York. Slightly more than one-fourth were obtained from treatment agencies with the rest coming from AA groups. These researchers were careful to define what they meant by "alcoholic." For the purpose of their study, subjects were defined as alcoholic if they had at some time participated, or were currently participating, in treatment for alcoholism.

The control group of 40 nonalcoholic women was selected from a random household sample. The rate of childhood sexual abuse reported by the control group was 28%, almost identical to that found by the Los Angeles Times (27%).

This study gives us more information than most. Miller et al. compared the sexual abuse experiences of the alcoholic women with those of the control group women in their sample and, like Covington, found that the alcoholic women's sexual abuse tended to be more severe than that experienced by the nonalcoholic control group. The alcoholic women with a history of childhood sexual abuse reported a greater number of different types of sexual abuse experiences (verbal requests, fondling, intercourse) and endured sexual abuse over a longer period of time than did

the nonalcoholic women with childhood sexual abuse experiences. Also noteworthy is that a history of childhood sexual abuse discriminated between the alcoholic and control groups even when controlling for demographic variables and parental drinking.

Miller et al. report that even though alcoholic women were more likely than controls to report having a parent with alcohol-related problems, relatively few of the child sexual abuse incidents were committed by a parent. They propose that the vulnerabilities to child sexual abuse may be attributable to environmental or psychological factors in homes in which a parent had alcohol-related problems.

A more recent study by the same author and two colleagues (Miller, Downs, & Testa, 1990) extends the earlier work by adding an additional comparison group, women who were not alcoholic but who were outpatients at mental health treatment centers. Results again strongly supported the contribution of childhood sexual abuse to subsequent alcohol abuse. Alcoholic women were significantly more likely than the general population or than nonalcoholics who had been treated for other emotional problems to have experienced any type of sexual abuse (contact and noncontact combined) as children. Seventy-one percent of the alcoholic women, 53% of the nonalcoholics in treatment, and 40% of the general population controls had experienced child sexual abuse. As in the earlier study, alcoholic women reported a

greater number of different types of child sexual abuse experiences--exposure or solicitation, touching/fondling, and intercourse--than either the general population comparison group or the treatment controls. Alcoholic women reported significantly higher levels of sexual abuse that involved intercourse than did the general population sample but not greater levels than the nonalcoholics in treatment.

Miller and colleagues gathered qualitative data in addition to the quantitative information in order to help explain the meaning of their results. The descriptive accounts by the women themselves suggest that victimization experiences lead to negative feelings about themselves and their lives, including lack of control, setting the stage for substance abuse as a coping strategy.

In summary, the reported rates of intrafamilial sexual abuse among women who have been or are being treated for alcohol and other drug dependence vary from 12% to as high as 50%, with most studies falling between 34% and 50%, as compared to the estimated rate of 16% in the general population (D. Russell 1986). The combined rate of extrafamilial and intrafamilial child sexual abuse among chemically dependent women varies from 53% to 77% in contrast to a rate of 38% (D. Russell 1986) in the general population. The higher rates of sexual abuse among alcohol dependent women than among women in the general population

strongly suggest that experiencing sexual abuse as a child may predispose a woman to alcohol dependence as an adult.

Prevalence of Child Sexual Abuse in Nonclinical Samples

Nonclinical studies of childhood sexual abuse among women experiencing problems with alcohol and other drug abuse in the general population are rare. These studies are important because the generalization of results are not limited to women in treatment. In addition, results from clinical samples can be inflated by other factors which, when combined with their problems with alcohol, caused these women to seek treatment (e.g. low self-esteem, depression). This, in turn, makes cause-effect relationships difficult to disentangle.

This researcher and colleagues (Russell, Wilsnack, Klassen, & Deitz, 1988), in a 1981 national survey and 1986 followup survey of problem drinking and nonproblem drinking women in the United States, found that 23% per cent of the problem drinkers as compared to 10% of the nonproblem drinkers reported a history of childhood sexual abuse (intrafamilial and extrafamilial abuse) before the age of 18. Sexual abuse was defined as sexual activity the person did not want. Whether it involved contact or not was left up to the subject, and the abuse could have been intrafamilial and/or extrafamilial. Problem drinkers were operationally defined as having at least two of the following in 1981: average consumption of one or more

ounces of ethanol (roughly two drinks) per day; one or more drinking-related problems in the past 12 months; and one or more symptoms of alcohol dependence in the past 12 months. Nonproblem drinkers were defined as women who consumed more than one drink per month in 1981, but who met none of the three problem drinking criteria.

Sexual abuse data in this study were obtained by a self-administered handout given as part of a larger personal interview study, and reflect predictably lower rates than those obtained by more expensive methods using personal interviewers specifically trained in sexual abuse issues. Despite this fact and the fact that the study was designed primarily to investigate the use and abuse of alcohol by women, not sexual abuse, it is more than noteworthy that childhood sexual abuse had occurred to more than twice as many women in the problem drinking category as women in the nonproblem drinking category.

Prevalence of Alcohol Dependence Among Women With Histories of Child Sexual Abuse

Prevalence of Alcohol Dependence in Clinical Samples of Victims of Child Sexual Abuse

Looking at the problem from a slightly different perspective are those studies which focus on women identified by their history of childhood sexual abuse, rather than their history of alcohol dependence. While it is well-substantiated that a significant number of women in

treatment for alcohol dependence have a history of childhood sexual abuse, is the reverse true? Are women with histories of childhood sexual abuse more likely than other women to abuse alcohol or other drugs?

One such study was reported in 1981 by Judith Herman, one of the pioneers of the study of child sexual abuse. She reports that at some time during their lifetime, 20% of the women in her clinical sample of female incest victims became alcohol or drug dependent.

Another such study by Briere and Runtz (1987) sheds further light on this question. These investigators designed a clinical study of 152 consecutive women requesting appointments at the crisis counseling department of a local community mental health center. They found that 44% of these clients reported a history of childhood sexual victimization and that 27% of the childhood sexual abuse victims had a history of alcoholism, compared with 11% of those with no sexual abuse history.

Sexual abuse was conservatively defined by Briere and Runtz as including any self-reported sexual contact (fondling to intercourse) occurring before the age of 15 and initiated by someone at least five years older than the victim, therefore not including aversive experiences with same-age peers, victimization during later adolescence, or "exposure only" events. Briere and Runtz are less clear about their definitions of alcoholism and substance abuse.

This study was designed primarily to examine the incidence and longterm effects of childhood sexual abuse. The investigators discovered that, compared to nonabused clients of the same mental health center, women with a history of childhood sexual abuse showed more dissociation, sleep disturbance, tension, sexual problems, and anger as well as greater use of psychoactive medications and more frequent suicide attempts and revictimization, in addition to the greater substance abuse mentioned above.

In a nonrandom clinical study of 28 self-selected adolescent incest victims in treatment for incest in an agency in Dane County, Wisconsin, Flanigan and colleagues (Flanigan, Potrykus, & Marti, 1988) compared alcohol and marijuana use in this group to that in the general population of adolescents. They found that incest victims were more likely to be classified as moderate to heavier drinkers, and were more often classified as misusers of both alcohol and marijuana than other adolescents. Moderate drinkers were defined as drinking small amounts at least once a week or drinking large amounts (5+ drinks) no more than once a month. Heavier drinkers were defined as drinking large amounts at least once a week. They based their definition of incest on one used by Kovach (1983) which included unwanted or inappropriate sexual experiences within families or coercion by an adult or older child who

uses his/her position of power or authority to engage in sexual behavior with a child.

Flanigan et al. also found that incest victims began to use both alcohol and marijuana at an earlier age than other adolescents. Corroborating this finding is Kovach's (1983) finding that female alcoholics who were victims of incest began drinking at a younger age than other female alcoholics.

These studies agree in their conclusions and answer the earlier question affirmatively. Not only do women in treatment for alcohol dependence have higher rates of childhood sexual abuse than their nonalcoholic counterparts, but victims of childhood sexual abuse have higher rates of alcohol use, abuse, and dependence than do women in the general population or women in treatment for problems other than sexual abuse.

Findings from studies of alcohol and drug problems among psychiatric patients with childhood sexual abuse histories are less clear, according to Miller et al. (1990). While Singer, Petchers, and Hussey (1989) reported higher levels of alcohol and drug use and more frequent drunkenness among sexually abused as compared to nonabused psychiatric patients, Goldston, Turnquist, and Knutson (1989) failed to find differences in alcohol and drug use among female psychiatric patients with and without child sexual abuse histories.

Alcohol Dependence in Victims of Child Sexual Abuse in the General Population

Studies of alcohol dependence among childhood sexual abuse victims in the general population are rare, as were general population (nonclinical) studies of childhood sexual abuse among alcohol dependent women. However, Peters (1984) found in a carefully designed community study that 17% of victimized women had symptoms of alcohol abuse compared with 4% of nonvictimized women, and 27% abused at least one type of drug compared with 12% of nonvictimized women. Again, the statistics suggest a link between a history of sexual abuse as a child and problems with alcohol or other drugs as an adult.

What Accounts for the Connection Between Child Sexual Abuse and Alcohol?

To the author's knowledge, no studies have been designed to determine systematically and exhaustively the variables responsible for the connection between childhood sexual abuse and subsequent alcohol abuse and dependence. Only two or three pioneering studies have ventured into the territory of trying to explain the connection. However, each restricted its investigation to a few variables which were hypothesized to be responsible for the childhood sex abuse-alcohol connection. This section reviews these few studies.

Some studies have compared the characteristics of alcoholic women with and without histories of incest for the purpose of learning more about the alcoholic incest victim. Hayek (1980) conducted one of the first studies of this sort. She administered a structured questionnaire to 60 female members of Alcoholics Anonymous (30 incest victims, 30 nonincest), all of whom had been sober at least one year.

Hayek found several differences between the groups. The alcohol dependent incest subjects were more likely than the alcohol dependent nonincest subjects to: (a) have mothers who were unresponsive to fathers, (b) be attracted to but not respectful of their fathers, (c) have families characterized by conflict, (d) experience more sexual dysfunction (dyspareunia with intercourse, and vaginismus), (e) feel guilt from the past at the onset of drinking, (f) begin drinking at a younger age, and (g) feel uncomfortable during sexual encounter if alcohol was not available to drink. Hayek concluded from this evidence that incest can be an important etiological factor as well as an important treatment issue.

In a later study, described in part earlier in this chapter, Kovach (1983) compared 117 alcoholic women with and without incest histories, all members of Alcoholics Anonymous. She used three self-administered questionnaires designed to investigate the relationship between the childhood incest experience and the development of

alcoholism in women. In the process of investigating the contribution of post traumatic stress disorder to the development of alcoholism in incest victims, she discovered several differences between alcoholic women with histories of incest and alcoholic women without incest histories. Many of these differences support Hayek's findings. In particular, Kovach found that alcoholic incest women as compared to their alcoholic nonincest counterparts: (a) perceived more trauma in life, (b) experienced a drinking problem earlier in life, (c) more frequently experienced sexual dysfunction, and (d) experienced higher levels of some symptoms of anxiety during sobriety.

Hurley (1990) chose to approach the problem by comparing incest victims who had developed alcoholism with incest victims who had not, to try to discern why some develop alcoholism and some do not. She studied 10 alcoholic and 9 nonalcoholic adult female incest survivors' perceptions of three areas of their lives: early life recollections; sexuality; and life forces since adolescence which motivated them to seek help. The most important finding in this study for shedding light on the alcohol - incest connection may be the difference in the women's perceptions of the effects of alcohol and drinking. Alcoholic incest survivors perceived alcohol to be effective in altering their feelings, facilitating social contacts, and enhancing self-esteem and sexual functioning. In

contrast, nonalcoholic incest survivors perceived alcohol as a threat to their ability to be in control.

A fourth study is less rigorous and has no control group but may still help shed some light on this issue, given how little information is available at this time. This survey (mentioned earlier in this review) by Sterne, Schaefer, and Evans (1983) was intended to be a needs assessment for women clients in treatment for chemical dependency at Chrysalis Mental Health Center. The women were asked to prioritize 10 items most critical to their recovery. These women had been in treatment several times before and were unable to maintain successful recovery. The 10 categories to be rated were: chemical use, personal awareness, health, family, social, legal, occupational, economic, and sexuality, and one category was left open to be specified by the client. The area of sexuality was rated above the area of chemical use and second only to personal awareness.

Many of these women stated that they had not dealt with their sexuality in prior treatments and reported this to be one of the main reasons for returning to chemical use. The women said that they returned to chemical use in order to protect themselves from painful feelings surrounding their sexuality in areas such as sex dissatisfaction/dysfunction and sex abuse/incest (Sterne et al., 1983).

Sterne and colleagues followed this needs analysis with a sexuality questionnaire. Seventy-one percent of clients in treatment reported using alcohol with sexual activity, while only 29% said that they rarely or never used alcohol with sexuality. Ninety-two percent of the clients reported being unable to reach orgasm.

In summary, if one were to make an educated guess from the few available studies which investigated the link between childhood sexual abuse and the development of alcoholism in women, it appears that the likely choice would involve sexuality. Three of Hayek's seven findings (b, d, and g) had to do with sexuality; sexuality was a common theme in both Kovach's and Hurley's findings; and Sterne, Schaefer, and Evan's study lends strong support to the hypothesis that sexuality is a culprit in this unfortunate cycle. Of course, the evidence is sparse, and such a hypothesis can be only that until more studies are done. However, the available evidence strongly suggests that a clearer look at the relationships among childhood sexual abuse, sexuality, and the development of alcoholism in adult women is warranted.

CHAPTER III

METHOD

Sampling and Data Collection

Data for this study came from a 1981 national survey of women's drinking and a 1986 five-year followup survey of two subsamples. The 1981 data were gathered from a nationally representative sample by professional interviewers trained by the National Opinion Research Center (NORC).

A probability sample of the U.S. adult female population aged 21 and over was stratified with two drinking levels: abstainers and light drinkers versus moderate and heavy drinkers. (Institutionalized individuals were not included in the sample.) Four thousand thirty-two (4032) individual households were screened for eligible respondents. Ten-minute interviews were used to determine women's drinking levels and their subsequent eligibility for the study. NORC interviewers requested interviews from every woman who drank four or more drinks per week (moderate-to-heavy drinking), from every woman reporting a history of drinking-related problems, and from one of every four women reporting light drinking or abstention. The final 1981 sample consisted of 917 women--500 moderate to heavy drinkers, 39 former problem drinkers, and 378 light

drinkers and abstainers--plus 396 men for purposes of comparison. The completion rate for the women ranged from 83% to 89%, and was 66% for the men.

The five-year followup survey involved locating two subsamples of women identified as either Problem Drinkers (PDs) or Nonproblem Drinkers (NPDs) in the 1981 survey. Problem Drinkers were operationally defined as women who in 1981 evidenced at least two of the following indicators: (a) self-reported average consumption of one or more ounces of ethanol per day, (b) one or more drinking-related problems in the past 12 months, and (c) one or more symptoms of alcohol dependence in the past 12 months. Nonproblem Drinkers were defined as women who consumed more than one drink per month in 1981 but met none of the three problem-drinking criteria. These criteria yielded a total followup sample of 377 women consisting of 178 PDs and 199 NPDs. Of this group, a substantial number (300) of women were successfully located and reinterviewed: 143 Problem Drinkers and 157 Nonproblem Drinkers. A small percentage (6.0%) of the followup sample were unable to be reached due to death, illness, or being out of the country (5 PDs and 16 NPDs). The final followup sample represents 80.3% (143 of 178) of all PDs in the 1981 sample and 78.9% (157 of 199) of all 1981 NPDs. Of the 917 women in the 1981 survey, not included in the followup sample were 290 women who reported abstaining from alcohol at least 30 days before the 1981

survey, 110 women who drank one drink per month or less in the 12 months preceding the survey (infrequent drinkers), and 140 women who drank more than one drink per month but who reported only one of the three problem drinking indicators.

Followup respondents were located by NORC staff using information collected during the 1981 survey (e.g., name, phone number, address, and similar information about a close friend or relative). Methods of locating included verification of 1981 addresses and phone numbers with directory assistance. When this was unsuccessful, personal visits to addresses with no phones, talking with neighbors, visiting schools and churches and other neighborhood or community organizations, and locating public records (e.g., birth, death, and marriage) at City Halls or County Clerk's offices were employed.

In the original 1981 survey, women in the moderate-to-heavy drinking category were systematically oversampled in order to assure a larger number of women in the heavier drinking range than had been studied in previous surveys. Due to the lower rates of heavy drinking among women compared to men, other surveys that have sampled women generally have had insufficient numbers of heavy drinking and problem drinking women for meaningful multivariate analyses (S. Wilsnack et al., 1991). Statistical weighting was necessary to correct for this oversampling as well as

for variations in completion rates (see R. Wilsnack et al., 1984). Further weighting adjustments were made for the 1986 followup data after determining that Black women and women from lower income levels were underrepresented due to higher nonresponse rates than were typical for the overall subsamples (S. Wilsnack et al., 1991). More detailed information on research design and statistical weighting can be found in R. Wilsnack et al. (1984) and S. Wilsnack et al. (1986, 1991).

A structured personal interview averaging 1 1/2 to 2 hours was used to gather the data in 1981 and a 75-minute interview in the 1986 survey. The 1981 interview included questions about current drinking behavior, lifetime changes in alcohol consumption, contexts of drinking, problems and symptoms caused by alcohol consumption, and attitudes and beliefs about drinking. Other information included demographic characteristics, family history, self-concept, social roles, social support, stressful life experiences, symptoms of anxiety and depression, physical health, sexual experience, obstetrical and gynecological problems, use of drugs other than alcohol, and participation in antisocial behavior.

All interviews for both surveys were conducted in strict privacy. In order to maximize self-disclosure in potentially sensitive areas (e.g., sexual experience, sexual abuse, and antisocial behavior), privacy even from the

interviewers was assured by allowing interviewees to self-administer a written questionnaire which they then placed in a sealed envelope. (See Klassen et al. (1989) for description of methods for obtaining optimal information on sexual experience.)

To facilitate longitudinal comparisons of women's drinking behavior, the 1986 questionnaire was designed to be as similar as possible to the 1981 survey instrument. About one half of the 1986 questionnaire was made up of questions taken directly from the 1981 survey. Questions in other areas were added to clarify and broaden findings from the 1981 study. Areas in which questions were added include characteristics of women's employment, drinking behavior of significant others, satisfaction with social roles, sexual experience and sexual abuse in childhood and adulthood, conflict resolution in significant relationships, and others.

The followup questionnaire was pretested with 12 respondents. This resulted in some changes (e.g., combining the childhood and adult sexual abuse sections) necessary to shorten the questionnaire administration time. The 1981 questionnaire was pretested with 100 women. Because of the sensitive nature of the information to be collected, interviews for both surveys were conducted by women interviewers. Some of the 1986 interviewers had participated in the 1981 study and all had previous

experience with NORC. Survey-specific training involved group conference calls and individual one-on-one mock phone interviews with a Field Manager. Field Managers were trained via self-study materials and telephone conference calls with the main NORC office in Chicago.

Measures

Sexual Abuse

Self-administered questions about sexual abuse included: the first and last age at which abuse occurred, the frequency with which it occurred, with whom it occurred, and how the respondent presently feels about the experience (see Appendix A, Handout #4 for specific questions and format). The development of a sexual abuse measure for the present study, based on these questions, is described in detail later in this and the next chapter.

Sexual Dysfunction

Questions about sexual dysfunction, also self-administered, were based on Kaplan's (1974, 1979) classification of major female sexual dysfunctions. Respondents were asked about: primary (lifetime) lack of sexual interest or arousal, vaginismus, and primary and secondary lack of orgasm with a partner. (See Appendix A, Questions 156 A, C, E, & H.)

The Sexual Dysfunction Index used in this study summed lifetime lack of sexual interest, lifetime lack or low frequency of orgasm with a partner (less than 50% of times

with partner), and vaginismus. Scores ranged from 0 to 3. The dysfunction index for 1986 was a dichotomous measure (0 vs. 1 or more) because this version had shown stronger relationships to childhood sexual abuse and drinking variables than had the four-category measure in preliminary path analyses (described later).

Drinking Measures

Questions about the quantity and frequency of beer, wine, and liquor consumption were used to estimate respondents' average daily intake in ounces of ethanol per day in the 30 days preceding the survey. (See Appendix A, Questions 95 through 105 for specific questions; see S. Wilsnack et al. (1991) for estimating procedures.) As in previous national surveys (e.g., Clark & Midanik, 1982; Johnson, 1982), respondents reporting an average of two or more drinks of beer, wine, or liquor (1 oz. or more of ethanol) daily were classified as heavier drinkers. Respondents reporting 0.22 to 0.99 oz. of ethanol per day were classified as moderate drinkers. Lighter drinkers were respondents who reported that they had drunk at least once in the past 30 days but whose average daily consumption was less than 0.22 oz. Abstainers were those respondents who reported never having drunk alcohol or at least not having drunk during the past year.

Standard lists of drinking-related problems and symptoms of alcohol dependence (from previous surveys by

Cahalan (1970) and others) were used, with new questions added to measure problems that may be more characteristic of women (e.g., interference by drinking with housework, drinking-related problems with children). An index of problem consequences of drinking included: driving while feeling intoxicated, starting fights, damage to job performance, problems with children, home accidents, and damage to intimate relationships. (See Appendix A, Questions 115-119, 122-125.) An index of five alcohol dependence symptoms included: memory lapses (blackouts), rapid drinking, morning drinking, inability to stop drinking before becoming intoxicated, and inability to stop or reduce alcohol consumption over time. (See Appendix A, Questions 130-134.) Both indexes summed the number of either consequences or symptoms reported for the 12-month period preceding the survey.

In addition, a composite Problem Drinking Index (PDI) summed the occurrence within the past 12 months of: (a) any episode of intoxication, (b) any problem consequence, and (c) any alcohol dependence symptom. Individual questions measured the frequency of heavy episodic drinking (six or more drinks in a day) (see Appendix A, Question 106) and the frequency of intoxication ("feeling drunk") in the past 12 months (see Appendix A, Question 108).

Procedure

Developing the Child Sexual Abuse Measure

Initial responses to questions about sexual abuse experience ("someone tried to make you have sexual activity you really did not want") did not distinguish sexual abuse occurring during childhood from abuse occurring in adulthood. Therefore, it was necessary to create a variable specifically for abuse occurring during childhood. A cross-tabulation of "first age of sexual abuse" by "last age of sexual abuse," with the latter including a category for those who were not abused more than once, made it possible to calculate the number of women who were abused only as children (N=43), those abused only as adults (N=30), and those abused as children and later as adults (N=10). Given the question response format, it was not possible to determine the number of times a woman was abused if more than two, or, if she was abused more than once, whether it was by the same perpetrator or by multiple perpetrators. Data did not provide distinctions between peer-age perpetrators contrasted with perpetrators at least five years older than the respondent. Only the age of first and last abuse experience was available. Perpetrators were not distinguished for each experience, so perpetrators could be identified by relationship to the victim only if she had had only one abuse experience. It would have been preferable to have sufficiently detailed information to distinguish and

eliminate from the definition of child sexual abuse, abuse that occurred on dates by peers had this been possible.

The data also did not allow individual incidents of sexual abuse to be identified as having familial vs. nonfamilial perpetrators. However, this was partly overcome in the development of a severity measure based on type of perpetrator (described below).

Even with these and other limitations, several options remained in this rich data base. For instance, in determining the age cutoff distinguishing child sexual abuse from adult abuse, the decision was made to follow the traditional age cutoff established in the literature. Therefore, the child sexual abuse variable was limited to any sexual abuse that occurred before the age of 18.

Three child sexual abuse measures were initially developed. Each consisted of two categories. At first it seemed most appropriate to approximate the experimental method as closely as possible. The "pure" ("experimental") child abuse category would have consisted of those women who had <u>only</u> childhood abuse experiences (N=43), eliminating 10 women who had histories of both child and adult sexual abuse. Only those women having <u>no</u> sexual abuse experiences as an adult or as a child would be in the "no abuse" ("control") category. Thirty additional women with adult sexual abuse experiences only would have been eliminated from the total sample. Another drawback to using this

measure of child sexual abuse, besides the loss of a substantial number of cases bound to affect the representativeness and robustness of the results, would have been the limited ability to compare the results with other studies. Other researchers had not chosen to investigate child sexual abuse using these categories. For these reasons, this measure was not pursued further.

A second measure was developed which excluded women with both child and adult sexual abuse experiences (N=10) from the child sexual abuse category but included them in the "all other" category, thus preserving the entire sample. The third measure, which was finally adopted for use in the exploratory bivariate analyses, had one category for women with "any child sexual abuse" (including those with a later adult sexual abuse experience) and a second "all others" category which consisted of all remaining women in the sample, including those with histories of adult sexual abuse only. This measure best approximated the measure used by prominent and well-respected researchers in the field, making comparisons with their findings an option. Also, it allowed the full sample to be used, strengthening the study's statistical power and allowing for more statistical manipulations than would have been possible with smaller numbers of cases. Decisions were also influenced by exploratory analyses in which a measure was developed with categories for child abuse, adult abuse, and both, and

cross-tabulated with different measures of consequences and demographic and early life variables. A general pattern was noted in which women with child sexual abuse experiences only tended to have higher rates of problems than did women with adult sexual abuse only. However, women with both types of abuse tended to have the most problems. This validated one hypothesis that sexual abuse experiences have a greater impact on adult women when they occur in childhood and another hypothesis which states that the greatest impact occurs when childhood abuse is followed by subsequent revictimization in adulthood (Browne & Finkelhor, 1986).

One concern was that including the 10 women who had experienced both child sexual abuse and adult sexual abuse in the child sexual abuse group might exaggerate the effects of childhood sexual abuse. However, it seemed likely that this modest exaggeration would be offset by including the adult sexual abuse cases (N=30) in the "all other" category.

Data Analysis

Initial Bivariate Analyses

In order to become more familiar with the data, a substantial number of cross-tabulations were examined using the dichotomous child sexual abuse variable described above: "any child sexual abuse" vs. "all others." Variables were chosen for which measures were available in the data and which had been shown in the literature to have some association with childhood sexual abuse.

These variables were: six drinking variables; questions about several types of drug use other than alcohol; four measures of self-esteem and self-confidence; three measures of locus of control; a clinical measure of depression (questions adapted from the NIMH Diagnostic Interview Schedule (DIS) (Robins et al., 1981)); measures of individual symptoms of depression from the DIS, such as low mood, thoughts of death and suicide, and attempts at suicide; questions about conflict and physical abuse in intimate relationships; questions about sexual experience, sexual dysfunction, and sexual preference. The sexual balance in relationships (e.g., who initiates sex, satisfaction with frequency of sex) was also examined. (See Appendix B, subheadings on tables for description of questions.)

Results of these initial bivariate analyses can be found in Appendix B. Later these cross-tabulations were expanded with several additional variables and served as the pool from which were chosen the most likely intervening variables (mediating the effects of child sexual abuse on later sexual dysfunction and/or problem drinking) for the multi-stage path analyses.

One of the most important findings from these initial exploratory bivariate analyses was the unexpected phenomenon that the nonproblem and problem drinker subsamples were showing different patterns. This provided the impetus for

analyzing the two subsamples separately. Given the two distinct subsamples, it became clear that the statistical weighting of the data would need to be recalculated for each subsample separately. This was done by a consultant from the National Opinion Research Center personally familiar with the data and responsible for the sampling design employed.

Subsequent Stages of Data Analysis

These developments led to the expansion of the original plan for examining two models in a path analytic design (Chapter I) to doing this twice, once for the nonproblem drinker subsample and once for the problem drinker subsample. The models were designed with the advantages and limitations of path analysis in mind, in particular, the requirement of postulating temporal order of variables in stages of predictors, where necessary; the assumption that causal relationships are measured by standardized regression coefficients, or Betas; and the assumption that either the variable relationships would fit a linear multivariable model or it would be possible to find ways to approximate linearity when necessary (Alwin & Hauser, 1975; Duncan, 1966). Path analysis is similar to multiple regression in theory, determining relationships of several predictor variables at once to a dependent variable. However, it allows for the incorporation within the model of different time-ordered stages, some of which the researcher is left to

determine by hypothetical postulation. The resulting calculations convey the many effects each variable in a given stage has on all subsequent variables and the final dependent variable. When the effects of a given predictor on the dependent variable are calculated with all earlier and same-stage predictors in the equation, but without reference to subsequent, or intervening predictors these are called total effects. When such effects are calculated taking into account also all variables in later stages of the model they are called direct effects. For a given predictor, the net total indirect effects are calculated as the difference between total and direct effects. This arithmetic of total, direct, and indirect effects, based on the multiple regression results described, is called decomposition of effects, in path analysis (Alwin & Hauser, 1975). All effects are unidirectional and are represented by arrows in a path diagram of regression results. A path model tends to be complex, with the intention of approximating real life and the multiple effects any number of variables may have on one another.

The original, simple three-variable path diagram models were evaluated in their four forms (i.e., child sexual abuse-->1981 sexual dysfunction-->1986 problem drinking, and child sexual abuse-->1981 problem drinking-->1986 sexual dysfunction, among nonproblem drinkers and problem drinkers). This produced six path models each for the

nonproblem and problem drinker subsamples with child sexual abuse and 1981 sexual dysfunction as primary predictors of each of six 1986 drinking measures as dependent variables. For the problem drinker subsample, it also produced 12 models predicting 1986 sexual dysfunction, given six 1981 drinking measures, plus the fact that two alternative 1986 measures of sexual dysfunction were evaluated. For the nonproblem drinker subsample there were only eight models predicting 1986 sexual dysfunction to be evaluated, since the definition of the nonproblem drinker subsample dictated that two of the 1981 drinking measures--problem consequences and dependence symptoms--were in effect nonvariables (all nonproblem drinkers' 1981 scores on these measures had to be zero).

A careful assessment of the results in these 32 simple path diagrams and their associated decomposition of effects tables allowed several useful conclusions. Of the two 1986 measures of sexual dysfunction, the one in dichotomous form was found to be a better measure, as indicated by its general tendency to be found in more path models with overall significant R^2's. In addition, the modest levels at which the simple child sexual abuse measure--the dichotomous (yes-no) form described earlier--participated in the model suggested that it would be important to develop measures of the <u>severity</u> of childhood sexual abuse which would bring with them greater variance than the dichotomous measure,

which in turn might produce stronger effects in the path models being evaluated. Another conclusion became increasingly clear, that early-life background specifier predictors and post-abuse intervening or mediating variables might play an important role in increasing the variance that could be explained in the projected path analyses.

Four measures of the severity of child sexual abuse were evaluated for linearity relative to subjective report, and they were also evaluated in terms of the same path models used in the first strategy focused on the simpler dichotomous version of the child sexual abuse variable. The value and substance of the former evaluation is reported in the Results chapter.

The results of these evaluations (the 32 simple path diagrams and their associated decomposition of effects tables, and examinations of linearity) led to the conclusion that only one of the drinking measures, the Problem Drinking Index, and one of the severity measures, the Family Perpetrator of Child Sexual Abuse, would be used in further analyses. The bivariate explorations described earlier identified many important longterm consequences of childhood sexual abuse, over and above the concerns of this study of adult sexual dysfunction and problem drinking. For the present purposes it was decided that only those consequences would be used which could be analyzed as intervening or mediating variables with respect to the effects of the

childhood abuse, and which could be postulated to have their effects after the abuse and before or during the development of 1981 problem drinking or sexual dysfunction. In addition to such intermediate variables, there seemed also to be some early-life background specification variables, in general, and respondents' ages in particular, which would need to be evaluated for inclusion in this first or "exogenous" stage of the model. These variables were included if they showed a relationship to child sexual abuse and were postulated to precede child sexual abuse. The results, and the introduction and winnowing of early life (first stage) and intervening (third stage) predictors, are described in detail in the Results section that follows.

CHAPTER IV

RESULTS

Hypotheses 1 and 2

Simple bivariate analyses confirmed Hypothesis 1 and to a lesser extent, Hypothesis 2 (see Tables 1-3). Regarding Hypothesis 1, more than twice as many women who were problem drinkers in 1981 (23%) reported histories of child sexual abuse as women who were nonproblem drinkers in 1981 (10%) (Table 1). Another confirmation of Hypothesis 1 was gained when the data were examined longitudinally, in addition to the former retrospective analysis. Among those women who were not problem drinkers in 1981, a history of child sexual abuse predicted the <u>onset</u> of one or more indicators of problem drinking by 1986 by a factor of 2 1/2 (51% to 19%) (Table 2). Regarding Hypothesis 2, childhood sexual abuse showed a strong (50% vs. 27%) but nonsignificant tendency ($p<.10$) to predict sexual dysfunction among nonproblem drinkers, and problem drinkers showed a nonsignificant difference in the same direction (33% vs. 29%, ns). Since both hypotheses received some support, both relationships were examined further in three-variable path models A and B.

Table 1

Percentages of 1981 Nonproblem Drinkers and Problem Drinkers Reporting Histories of Childhood Sexual Abuse

Childhood Sexual Abuse	1981 Nonproblem Drinkers (N=157)	1981 Problem Drinkers (N=143)
Yes	10.2%	23.1%
No	89.8%	76.9%
	100.0%	100.0%

$X^2 = 8.18$, df = 1, $p < .005$.

Table 2

1986 Problem Drinking Index Scores Among 1981 Nonproblem Drinkers With and Without Histories of Childhood Sexual Abuse

	1986 Problem Drinking Index Scores		
Childhood Sexual Abuse	0	1 or More	
Yes	48.9%	51.1%	100.0% (16)
No	80.8%	19.2%	100.0% (141)

Note. Percentages are based on weighted data, taking into account unequal probabilities of inclusion at several levels of sample selection. For significance tests, weights were adjusted by constant ratios to produce weighted Ns (in parentheses) equal to the actual numbers of respondents in specific categories.

$p < .01$, one-tailed.

Table 3

Sexual Dysfunction Among Problem Drinking and Nonproblem Drinking Women Histories of Child Sexual Abuse

Sexual Dysfunction Index Scores	Problem Drinkers		Nonproblem Drinkers	
	No Child Sexual Abuse	Any Child Sexual Abuse	No Child Sexual Abuse	Any Child Sexual Abuse
0	71.2	66.8	73.1	50.1
1 or more	28.8	33.2	26.9	49.9
	100.0%	100.0%	100.0%	100.0
	n = 102	n = 33	n = 122	n = 16
	x^2 = .064, df = 1, p < n.s.		x^2 = 2.51, df = 1, p < .10	

Development of Severity Measures

As discussed in the Method section, it appeared worthwhile to attempt to develop a better measure of child sexual abuse after obtaining disappointing results with the initial dichotomous measure. The first step in this process was the cross-tabulation of a subjective severity variable, "had trouble getting over it," "yes" or "no," to evaluate various aspects of sexual abuse experiences, such as the frequency with which it occurred (once, twice, or three or more times) and the type of perpetrator (stranger, partner, someone they knew but not a family member, father-figure, brother or male cousin, grandfather or uncle, or with some other relative). The age it first occurred, and the feelings about the abuse (painful or frightening, surprised or shocked, guilty, or angry) were also examined by cross-tabulation with the "hard to get over" response.

The duration of abuse over time with the same perpetrator has been demonstrated by some researchers (Browne & Finkelhor, 1986; D. Russell, 1986) to be an important indicator of severity. It was not possible to create such a variable due to limitations of the data. The first and last abuse experiences were tapped by only first and last age, hence, if a woman was abused more than twice, it was not possible to discern the duration of each separate abuse relationship. Also, if the first age of sex abuse reported was as a child and the last age was after 17

(considered adult abuse), there was no way of knowing if this was the same abuse begun as a child which extended into adulthood or if this was another abuse experience by a different perpetrator, except when the respondent reported only one sexual abuse experience. If more than one was reported, this became impossible to determine, with the data available.

Another limitation in the creation of severity measures was the lack of information about the type of each abuse (contact vs. noncontact; fondling vs. intercourse) and whether or not force or violence was used. It has been demonstrated by D. Russell (1986) and other researchers (Browne & Finkelhor, 1986) that the degree of force used and whether or not intercourse was involved in the abuse greatly determines the severity and longlasting effects of abuse experiences.

Despite these limitations, it was possible to develop several severity measures from the data (number of occasions or frequency of abuse, type of perpetrator, age of first abuse, and adult revictimization) by cross-tabulating these with the item, "hard to get over," as mentioned above (see Figure 2). The perpetrators fell into two primary categories, family perpetrators and nonfamilial perpetrators. Among Nonproblem Drinkers (NPDs), the "hard to get over" rates were 38% and 24% respectively and for Problem Drinkers (PDs), 63% and 18% respectively. A

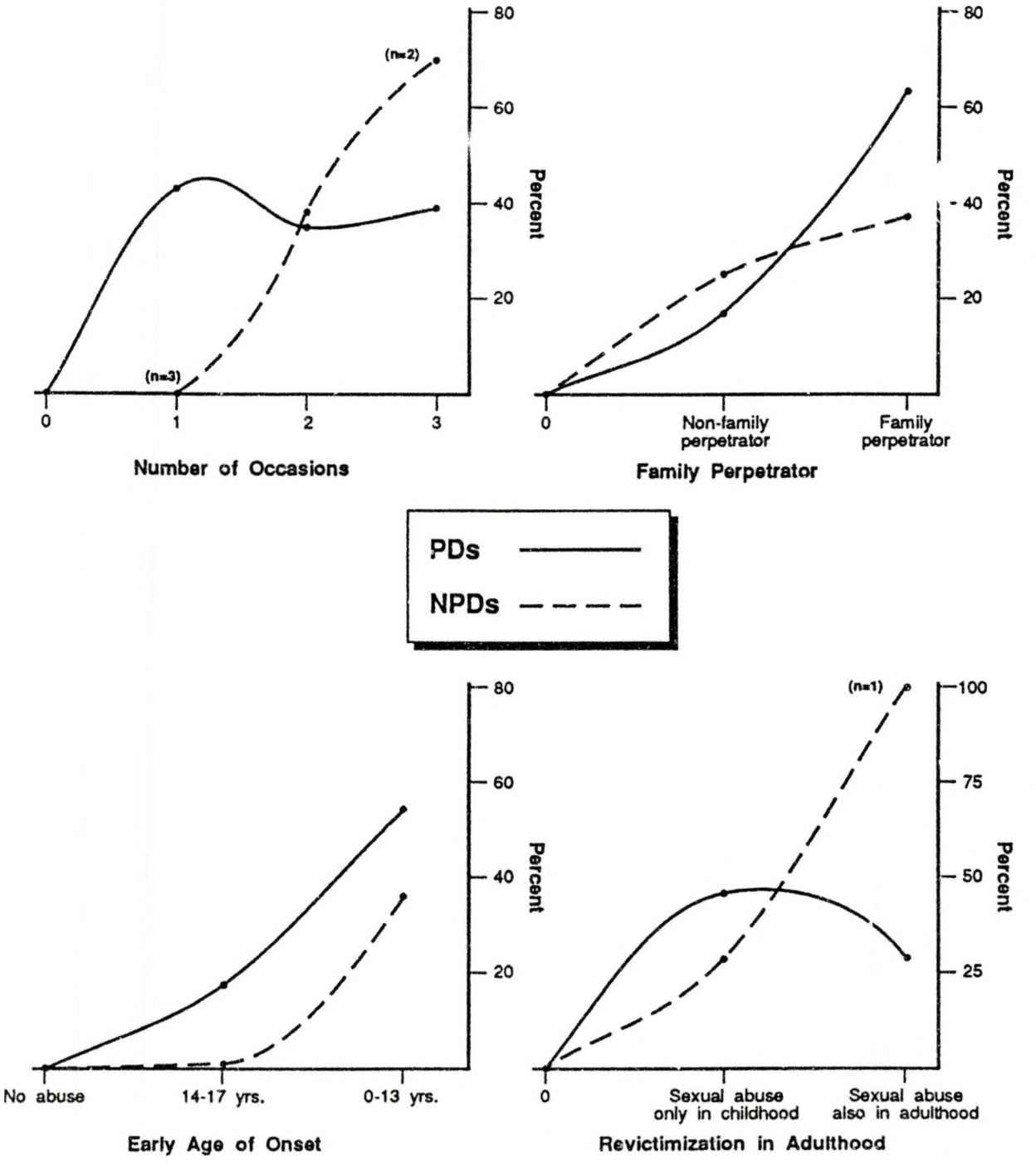

Figure 2. Percent "Yes" Responses to "Hard to Get Over?" By Various Severity of Child Sexual Abuse Measures Among 1981 Problem Drinkers (PD) and Nonproblem Drinkers (NPD)

family/nonfamily or incest/nonincest perpetrator severity variable was created that consisted of these two categories and also a third, or zero, category for all others with no history of child sex abuse.

The age of the first sexual abuse also fell into three categories of descending order of severity: (a) before the age of 14, (b) age 14 and older, and (c) no child sex abuse. For PDs, 18% in the 14 and older category reported it was hard to get over, compared to 54% of those whose abuse occurred when they were less than 14 years of age. For NPDs, no one in the 14 and older group reported it was hard to get over (but there were only two cases here), compared to 36% in the younger than 14 group.

A revictimization severity variable was created by operationally defining women with both child and adult sex abuse as "revictimized." As mentioned earlier, there was already evidence from the initial look at the data that women revictimized sexually as adults suffered more severe effects than those victimized only as children or only as adults. Using a cross-tabulation of "hard to get over" with this revictimization variable, the NPDs had rates of 27% with child abuse only, and the only woman who was revictimized said it was hard to get over; among PDs the corresponding rates were 46% and 27%, the opposite of what was expected.

Another severity measure was created from the number of occasions (frequency) of abuse. Among PDs abused one time, 46% reported it was hard to get over compared to 35% of those abused twice and 39% of those abused three or more times. For the NPDs abused only once, none reported it was hard to get over (there were only three abused women here). For those with two occasions of abuse, 38% said it was hard to get over, while 70% of those abused three or more times reported it was hard to get over (there were only two abused women here so results are not reliable).

The measures of emotional impact did not have enough variance to be useful in creating a severity measure. Some noteworthy patterns emerged, however. For example, almost every woman reported feeling angry about her abuse experience.

There is evidence in the literature (D. Russell, 1986) that severity tends to have curvilinear relationships to some other variables. For example, on a measure of traditionality women who reported no abuse and women who reported severe abuse tended to adopt a more traditional feminine sex role, while those reporting moderate abuse tended to reject traditional feminine sex roles.

To avoid problems of curvilinearity, given the use of statistical procedures based on assumptions of linearity, each measure was examined for curvilinearity (relative to subjective severity) and eliminated if such was found (see

Figure 2). Revictimization and frequency of abuse were eliminated on this basis, leaving the age of onset and familial vs. nonfamilial perpetrator as the remaining options. Simple path analyses with all severity measures were done and their effects compared before issues of curvilinearity became prominent. Results from these analyses were quite similar for each of the four measures. However, the type of perpetrator emerged as the measure of choice, producing one more path model with an overall significant R^2 than did age of onset. The three categories in this measure were, in ascending order of severity: (0) no child sexual abuse, (1) nonfamilial perpetrator, and (2) familial perpetrator. Despite the fact that the relationship (familial vs. nonfamilial) of the perpetrator to the child was one of the stronger severity measures for this study, results from other studies are less clear. In a review of the literature, Browne and Finkelhor (1986) found that the relative-nonrelative distinction was not a consistent predictor of severity. However, they noted that childhood sexual abuse experiences involving fathers and father-figures have been more consistently associated with greater trauma compared with all other types of perpetrators.

Determining Background and Intervening Variables

Winnowing Background/Early Life Variables

Since early life circumstances might very well have an effect upon how a woman experiences and copes with her child sexual abuse, background variables were examined as they related to abuse. Variables occurring after the abuse (intervening variables) which were hypothesized to mediate the effects of child sex abuse on sexual dysfunction and/or problem drinking were also studied. Variables for Stage I (early life) in the path analysis were chosen according to findings from other studies and availability in the data set. Through this process, 24 variables were identified (see List of All Variables Used for Path Analysis) and their relationships to sex abuse investigated by cross-tabulation. Variables which showed a relationship to child sex abuse either through a relatively noticeable chi square or Pearson r significance level ($p<.10$) and/or through noteworthy correlational values reflected by gamma and Pearson r, and eta values when relevant, were carried on to another stage of winnowing. (Correlations of .12 or greater were considered noteworthy in this phase of the analysis.)

This process was purposefully inclusive at this phase in order to give each variable every possible chance to play a role in the final path models. One variable (religion raised in) was recoded into two dummy variables to accentuate patterns uniquely distinguishing Catholics from

List of All Variables Considered for Path Analysis*

Stage I (Early Life Variables - Background Variables)
*Age
Highest grade father completed
Highest grade mother completed
Father worked full-time (when respondent was growing up)
Mother worked full-time (when respondent was growing up)
Mother worked part-time (when respondent was growing up)
Where respondent grew up - rural or urban
Religion raised in-->Developed Catholic & Protestant variables from this
Catholic-respondent raised Catholic
Protestant-respondent raised Protestant
Parents' religiosity during respondent's childhood
Religion raised in against alcohol
Father's drinking pattern (1986 question) when respondent was growing up
Father's drinking pattern (1881 question) when respondent was growing up
Mother's drinking pattern (1986 question) when respondent was growing up
Mother's drinking pattern (1981 question) when respondent was growing up
Parental loss or breakup during respondent's childhood
Parental love (index of being accepting, praising, and loving toward respondent during respondent's childhood)
Loving mother (index of being accepting, praising, and loving toward respondent during respondent's childhood)
Parental strictness (index of being strict or controlling toward the respondent about sexual and nonsexual matters during respondent's childhood)
Father strict (index of being strict or controlling toward the respondent about sexual and nonsexual matters during respondent's childhood)
Mother strict (index of being strict or controlling toward the respondent about sexual and nonsexual matters during respondent's childhood)
Father strict about sex (index of being strict or controlling about sexual matters while respondent was growing up)

State II (Sex Abuse)
Child Sexual Abuse (simple dichotomy)
Four Measures of Severity of Sex Abuse:
--Number of occasions
*--Familial vs. non-familial perpetrator
--Early age of onset
--Revictimization in adulthood

Stage III (Intervening or Mediating Variables)
Traditional feminine traits (index based on two questions from Spence & Helmreich, 1978) (able to devote self to others and very understanding of others)
Traditional masculine traits (index based on four questions from Spence & Helmreich, 1978) (can make decisions easily; very self-confident; stands up well under pressure; and able to influence people)
Traditional feminine values (index based on two goals or ideals derived from Jessor & Jessor, 1977) (to be married and to have children)
*Traditional masculine values (index based on five goals or ideals derived from Jessor & Jessor, 1977) (to have other people follow your ideas; to say what you think even if other people do not agree with you; to earn your own income; to have a job or career outside the home; to be greatly respected for how well you do your work)
*Sexual morality (How respondent feels about an unmarried man and woman having sex)
Religiosity-how religious is respondent at time of interview
Religious preference-at time of interview-->Developed Disavow variable from this
Disavow-those who were no longer practicing any religion at time of interview
*Fundamentalist Protestant-at time of interview
Highest grade completed
Lifetime drug use
When drinking, less shy
When drinking, helps sleep
When drinking, less inhibited about sex
When drinking, helps forget worries
When drinking, feel more powerful
When drinking, feel more relaxed
When drinking, sex is more pleasurable
When drinking, easier to speak mind
When drinking, easier to feel close
When drinking, easier to be open
When drinking, reduce distress regarding sex
Partner is dishonest with respondent
*Partner not trusted (partner does not try to keep promises)
At times offended or hurt by something partner said or did
At times wanted something different than partner
At times able to express opinions openly
At times able to make the important decisions
Never married
Nontraditional sexual behavior (index based on ever having had sex before marriage and/or having self-induced climax before age 21)
Ever experienced depressive episode (DIS criteria)
Two weeks or more felt sad, blue, or depressed (from DIS)
One week felt sad, blue, or depressed (from DIS)

Two or more weeks felt worthless, sinful, or guilty (from DIS)
Two or more weeks thought about death (from DIS)
Two or more weeks wanted to die (from DIS)
Two or more weeks thoughts of suicide (from DIS)
Attempted suicide (from DIS)
*Severe depression (index based on DIS diagnosis of depression plus ever having suicide thoughts or attempts)
*Age of 1st sexual relations (17+) (sexual abuse experience not reported by any respondent as first sexual relations)
*Age of 1st masturbation (30+)

Stage 4 (Intermediate Dependent Variables in Alternative Analytic Models)
Six measures of 1981 drinking (with 1986 primary sexual dysfunction as main dependent variable
--Consumption level (30-day average ounces of ethanol per day)
--Frequency of heavy episodic drinking (6+ drinks/day) in the last 12 months
--Frequency of intoxication in the last 12 months
--Index of problem consequences of drinking in the last 12 months
--Index of alcohol dependence symptoms in the last 12 months
*--Problem Drinking Index (intoxication, symptoms, and consequences)
*Primary Sexual Dysfunction Index, 1981 (index sums lack of sexual interest, lack or low frequency of orgasm with a partner, and vaginismus) (with 1986 drinking measures as main dependent variables) (dichotomous measure)
Primary Sexual Dysfunction Index, 1981 (same as above except measure has four categories)

Main Dependent Variables
Six measures of 1986 drinking:
--Consumption level (30-day average ounces of ethanol per day)
--Frequency of heavy episodic drinking in the last 12 months
--Frequency of intoxication in the last 12 months
--Index of problem consequences of drinking in the last 12 months
--Index of alcohol dependence symptoms in the last 12 months
*--Problem Drinking Index (intoxication, symptoms, and consequences)
*Primary Sexual Dysfunction Index, 1986 (index sums lack of sexual interest, lack or low frequency of orgasm with a partner, and vaginismus) (dichotomous measure)

Primary Sexual Dysfunction Index, 1986 (same as above except measure has four categories)

*Variables included as predictors in final path analyses.

Protestants from all others in order to better evaluate religion as a variable. Another dummy variable was created from a 1981 religious preference variable in order to investigate a relationship found by D. Russell (1986) between women sexually abused as children and defection as adults from the religion in which they were raised: The more severe the abuse, the more likely the woman was to no longer be affiliated with any religion, according to our findings. Although parental drinking was suspected on the basis of a study by Miller et al. (1987) to relate to women's risks of child sexual abuse, this variable showed no discernable relationships to child sexual abuse, and there was no way in which it could be rearranged or recoded to discover any obscured patterns. Much time and thoughtfulness was invested in this important phase of determining additional variables to fit into the elaboration models.

Remaining variables were winnowed again using bivariate regression. Five variables survived the initial winnowing process: (a) father's educational level, (b) mother's working full-time, (c) being raised Protestant, (d) being raised Catholic, and (e) age. The final winnowing consisted of evaluating these five in a simultaneous multivariable regression on PDI (1986) and sexual dysfunction (1986) in the four models. Only age survived the final winnowing process. There were reasons to believe that age would have

an important but complex effect in this analysis, as was the case in earlier studies of the full sample (R. Wilsnack et al., 1987; R. Wilsnack & Cheloha, 1987; S. Wilsnack et al, 1991).

Winnowing Intervening Variables

Intervening variables (which might also be termed moderating or coping variables) were determined in a similar manner. (See List of All Variables Considered for Path Analysis.) Again, variables were chosen according to their availability in the data set and results from earlier studies. These variables are those which hypothetically moderate or exacerbate the effects of child sexual abuse upon drinking or sexual dysfunction or both.

Variables were again chosen on the basis of their cross-tabular relationship to childhood sexual abuse, being eliminated for curvilinearity or lack of statistical significance. Some patterns were statistically significant due to curvilinearity, and these were not automatically accepted. Care was taken to examine each cross-tabulation for small cell Ns, which might cause the results to be misleading. Variables showing significant relationships to sexual abuse within either the PD or NPD subsample were included, as was the case for the background variables.

Forty-two variables were considered and 18 showed cross-tabular relationships to child sex abuse significant at $p<.20$. Following a convention of including no more than

1 variable for every 10 cases (Kraemer & Thiemann, 1987), a significance level of $p<.10$ was employed which screened the variables down to 10. The two next strongest variables were then included to make a total of 14, including the background variable of age and the sex abuse variable, family perpetrator. The dependent variable was not included in this count.

Path analyses were carried out with these 15 variables, twice for PDs and twice for NPDs, one time for each subsample with 1986 PDI as the dependent variable and once with the 1986 sexual dysfunction index as the dependent variable. Results are summarized in Decomposition of Effects Tables 4-7. Because the resulting path models were highly complex, with numerous nonsignificant paths, each model was simplified further by retaining only those variables which had significant ($p<.05$) relationships both to child sexual abuse and to adult sexual dysfunction and/or problem drinking. Significance levels in these and other path analyses were 1-tailed for all path coefficients in the predicted direction (based on the available literature and previous findings), 2-tailed for all other coefficients. During this last phase of the analysis, different variables were retained in each of the four models, thus determining what unique combination of variables best predicted each dependent variable (problem drinking and sexual dysfunction) within the PD and NPD subsamples. Results of the simplified

Table 4

Decomposition of Effects in a Path Analysis of 1986 Problem Drinking Index, Among 1981 Nonproblem Drinkers (Full Model, Same Predictors for PDs and NPDs and for Both Dependent Variables)

Stages of Predictors	Direct Effects	Indirect Effects	Total Effects	Extraneous Effects	Total Association
Stage I					
Age	-.332	-.048	-.380	-0-	-.380
	(.001)		(.00)		
Stage II					
Childhood Sexual	+.117	+.024	+.141	+.011	+.152
Abuse	(.18)		(.07)		
Stage III					
Depression and	-.095	-.005	-.100	+.082	-.018
Suicide Thoughts	(.29)		(.26)		
or Attempts					
Fundamentalist	-.169	-0-	-.169	-.045	-.124
Protestant	(.03)		(.03)		
Age of 1st Mas-	-.061	-.001	-.062	-.008	-.070
turbation (30+)	(.26)		(.25)		
Age of 1st Sexual	-.242	+.002	-.240	-.045	-.285
Relations (17+)	(.005)		(.005)		
Drug Use-Ever	+.158	-0-	+.158	-.022	+.136
	(.04)		(.04)		

Table 4 (continued)

Traditional	+.004	+.001	+.005	+.123	+.128
Masculine	(.49)		(.48)		
Values					
Partner Not	-.184	-0-	-.184	+.069	-.115
Trusted	(.05)		(.04)		
Partner Hurts	-.030	-0-	-.030	-.112	-.142
or Offends	(.75)		(.73)		
Stage IV					
Sexual	-.009	-0-	-.009	-.038	-.047
Dysfunction	(.93)		(.93)		

R^2 = .287, p < .0002.

Table 5

Decomposition of Effects in a Path Analysis of 1986 Sexual Dysfunction, Among 1981 Nonproblem Drinkers (Full Model, Same Predictors for PDs and NPDs and for Both Dependent Variables)

Stages of Predictors	Direct Effects	Indirect Effects	Total Effects	Extraneous Effects	Total Association
Stage I					
Age	-.005	+.031	+.026	-0-	+.026
	(.97)		(.77)		
Stage II					
Childhood Sexual	+.177	-.018	+.159	-.001	+.158
Abuse	(.04)		(.04)		
Stage III					
Depression and	-.001	+.019	+.020	+.002	+.022
Suicide Thoughts	(.99)		(.42)		
or Attempts					
Fundamentalist	-.032	-.006	-.038	+.016	-.022
Protestant	(.74)		(.69)		
Age of 1st Mas-	+.197	-.005	+.192	+.009	+.201
turbation (30+)	(.03)		(.03)		
Age at 1st Sexual	+.037	+.001	+.038	+.024	+.062
Relations (17+)	(.71)		(.70)		
Drug Use-Ever	-.016	-.004	-.020	(.84) - .052	-.072
	(.87)				

Table 5 (continued)

Traditional	-.055	+.003	-.052	+.034	-.018
Masculine	(.60)		(.61)		
Values					
Partner Not	-.233	-.002	-.235	-.015	-.220
Trusted	(.02)		(.02)		
Partner Hurts	+.176	+.010	+.186	-.092	+.094
or Offends	(.05)		(.04)		
Stage IV	+.101	-0-	+.101	+.007	+.108
Problem Drinking	(.30)		(.30)		
Index					

R^2 = .151, p < .08.

Table 6

Decomposition of Effects in a Path Analysis of 1986 Problem Drinking, Among 1981 Problem Drinkers (Full Model, Same Predictors for PDs and NPDs and for Both Dependent Variables)

Stages of Predictors	Direct Effects	Indirect Effects	Total Effects	Extraneous Effects	Total Association
Stage I					
Age	-.071	-.047	-.118	-0-	-.118
	(.053)		(.17)		
Stage II					
Childhood Sexual	-.042	+.039	-.003	+.027	+.024
Abuse	(.70)		(.98)		
Stage III					
Depression and	+.030	+.015	+.045	+.022	+.067
Suicide Thoughts	(.39)		(.33)		
or Attempts					
Fundamentalist	-.024	-.036	-.060	-.014	-.074
Protestant	(.41)		(.28)		
Age of 1st Mas-	-.069	-.019	-.050	-.024	-.074
turbation (30+)	(.25)		(.32)		
Age of 1st Sexual	+.078	-.015	+.063	-.002	+.061
Relations (17+)	(.45)		(.55)		
Drug Use-Ever	+.097	+.029	+.126	+.001	+.127
	(.18)		(.12)		

Table 6 (Continued)

Traditional	+.088	-.009	+.079	+.040	+.119
Masculine	(.22)		(.25)		
Values					
Partner Not	-.040	+.024	-.016	+.037	+.021
Trusted	(.70)		(.88)		
Partner Hurts	+.029	+.010	+.039	+.050	+.089
or Offends	(.40)		(.37)		
Stage IV					
Sexual	+.244	-0-	+.244	+.014	+.258
Dysfunction	(.01)		(.01)		

R^2 = .108, p < .11.

Table 7

Decomposition of Effects in a Path Analysis of 1986 Sexual Dysfunction, among 1981 Problem Drinkers (Full Model, Same Predictors for PDs and NPDs and for Both Dependent Variables)

Stages of Predictors	Direct Effects	Indirect Effects	Total Effects	Extraneous Effects	Total Association
Stage I					
Age	-.265	+.129	-.036	-0-	-.036
	(.02)		(.68)		
Stage II					
Childhood Sexual	+.046	-.056	-.010	+.009	-.001
Abuse	(.33)		(.92)		
Stage III					
Depression and	-.101	-.044	-.145	-.035	-.180
Suicide Thoughts	(.29)		(.14)		
or Attempts					
Fundamentalist	-.150	-.018	-.168	+.028	-.140
Protestant	(.11)		(.09)		
Age of 1st Mas-	+.241	+.032	+.273	-.068	+.205
turbation (30+)	(.01)		(.01)		
Age of 1st Sexual	-.069	+.046	-.023	+.003	-.020
Relations (17+)	(.24)		(.41)		
Drug Use-Ever	-.042	+.026	-.016	+.044	+.028
	(.67)		(.88)		

Table 7 (continued)

Traditional	-.239	-.002	-.241	+.112	-.129
Masculine	(.02)		(.02)		
Values					
Partner Not	+.160	-.026	+.134	+.010	+.144
Trusted	(.06)		(.10)		
Partner Hurts	+.101	+.032	+.133	-.047	+.086
or Offends	(.16)		(.10)		
Stage IV					
Problem Drinking	-.284	-0-	-.284	+.025	-.259
Index	(.01)		(.01)		

$R^2 = .234$, $p < .004$.

path analyses are presented in Tables 8-11, decomposition of effects, and Figures 3-6, path diagrams.

Results of the Refined Path Analyses

Results indicate some striking patterns, but it is immediately evident upon looking at the path diagrams in Figures 3-6 that the relationships among childhood sexual abuse, sexual dysfunction, and problem drinking are more complex than either of the three-variable models initially proposed. In short, the relationships are not as simple as initially predicted.

Nonproblem Drinkers with Problem Drinking (1986) as the Dependent Variable

Examining first the path diagram (Figure 3; Table 8) predicting 1986 problem drinking among NPDs, it is noteworthy that sexual abuse had some effect on whether or not a woman with no problem drinking in 1981 developed problem drinking five years later in 1986. (Although this finding failed to reach significance at the .05 level, it was thought to be close enough (Beta=+.12; $p<.06$) to warrant attention, especially since it involved two of the main variables in the model, sex abuse and PDI.) In this model, child sex abuse failed to have any direct effect to speak of on sexual dysfunction in 1981.

One cluster of variables was especially noteworthy. Child sex abuse had a significant effect on the age at which a woman first had sexual relations (Beta=-.17; $p<.03$). The

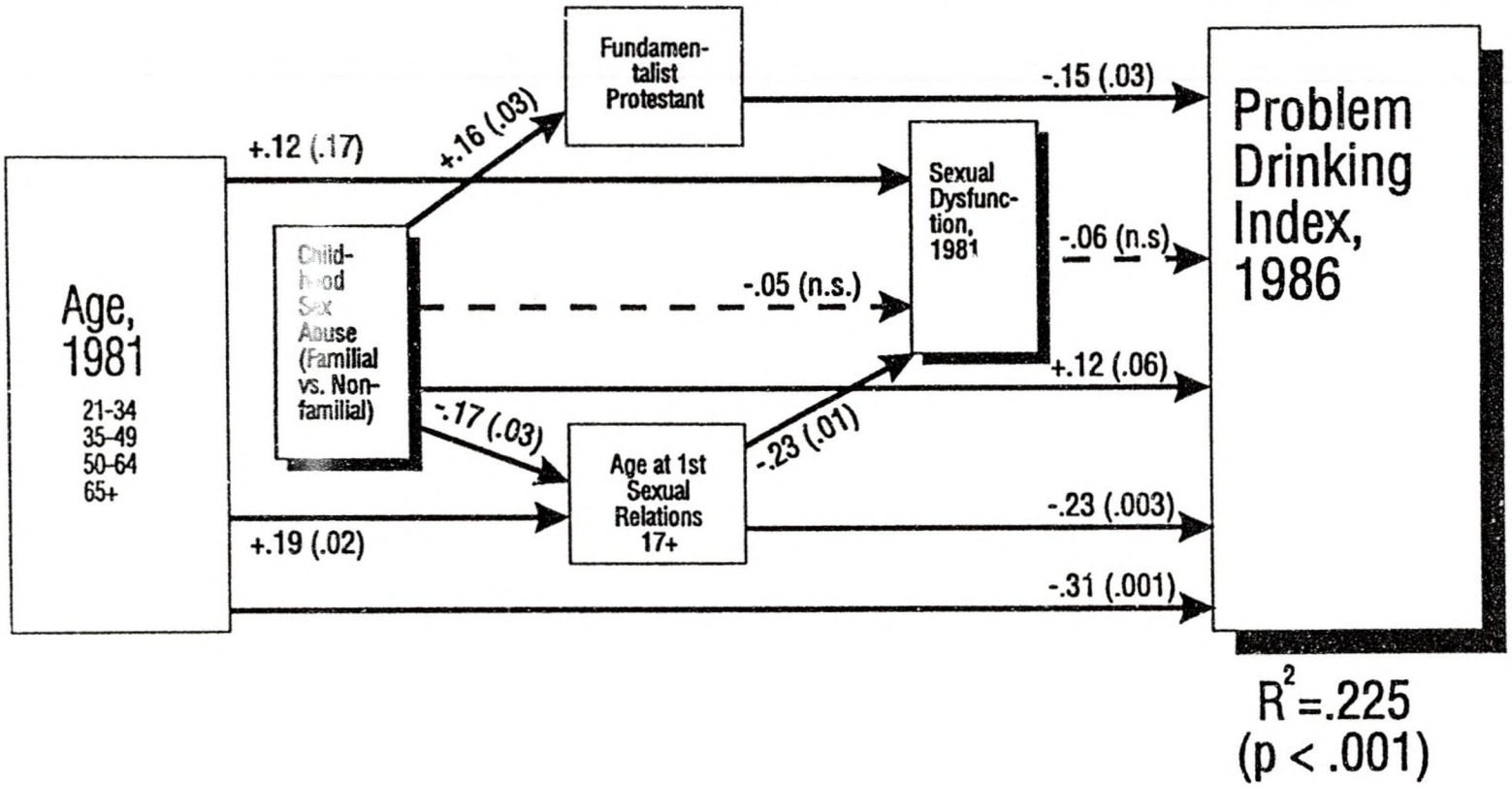

Figure 3. Path Analysis of Childhood Sexual Abuse and 1981 Sexual Dysfunction as Predictors of 1986 Problem Drinking Index, Among 1981 Nonproblem Drinkers.

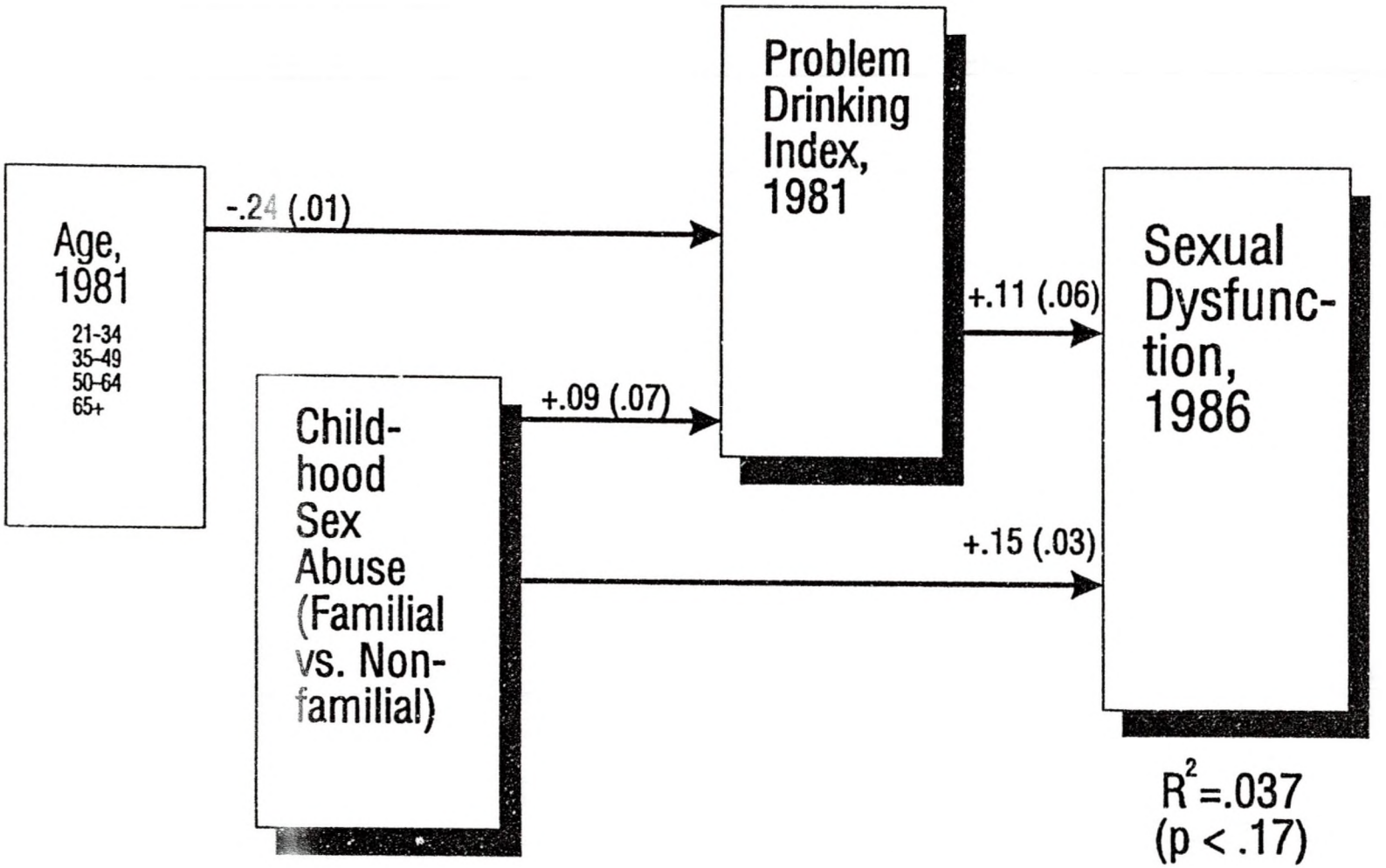

Figure 4. Path Analysis of Childhood Sexual Abuse and 1981 Problem Drinking Index as Predictors of 1986 Sexual Dysfunction, Among 1981 Nonproblem Drinkers.

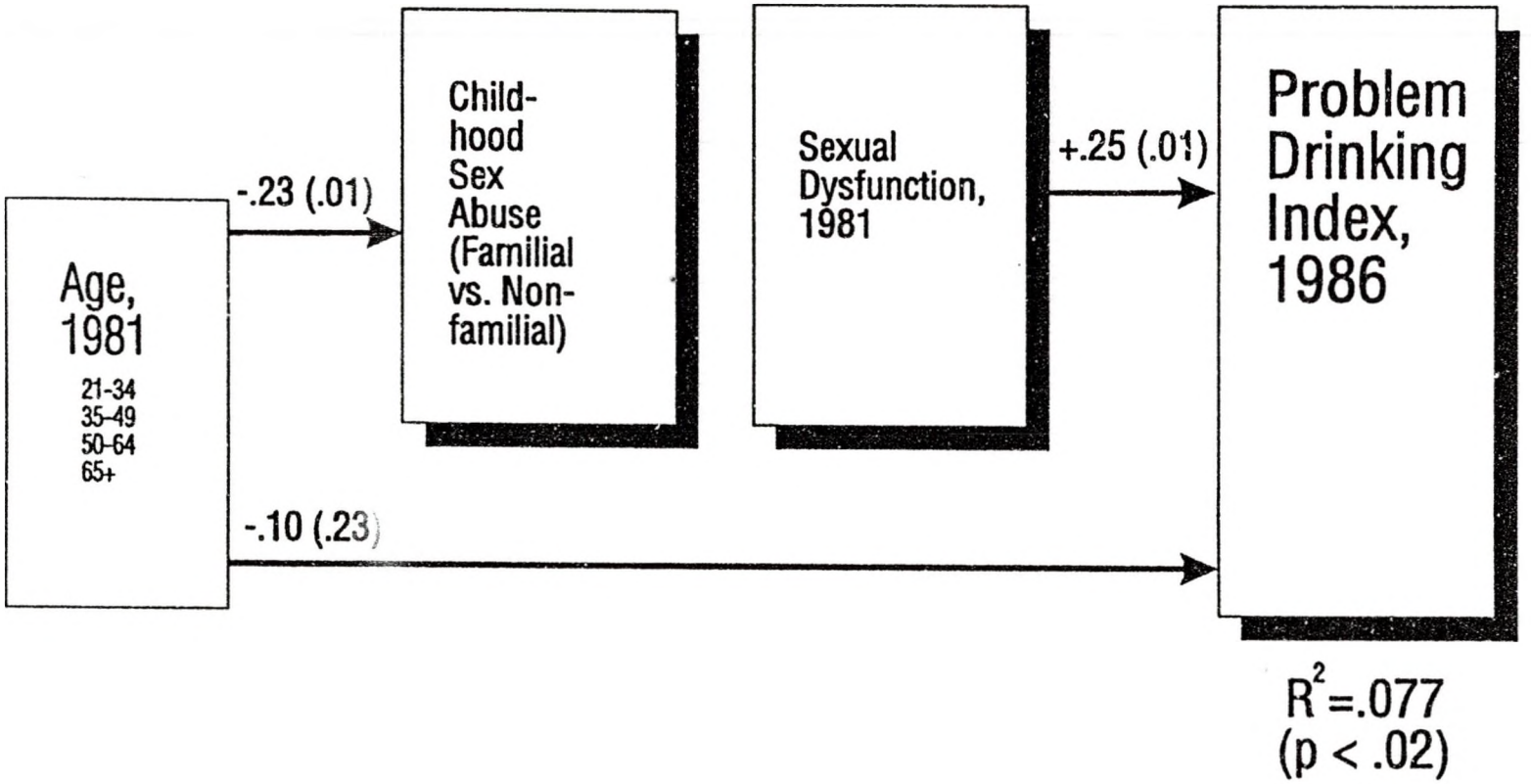

Figure 5. Path Analysis of Childhood Sexual Abuse and 1981 Sexual Dysfunction as Predictors of 1986 Problem Drinking Index, Among 1981 Problem Drinkers.

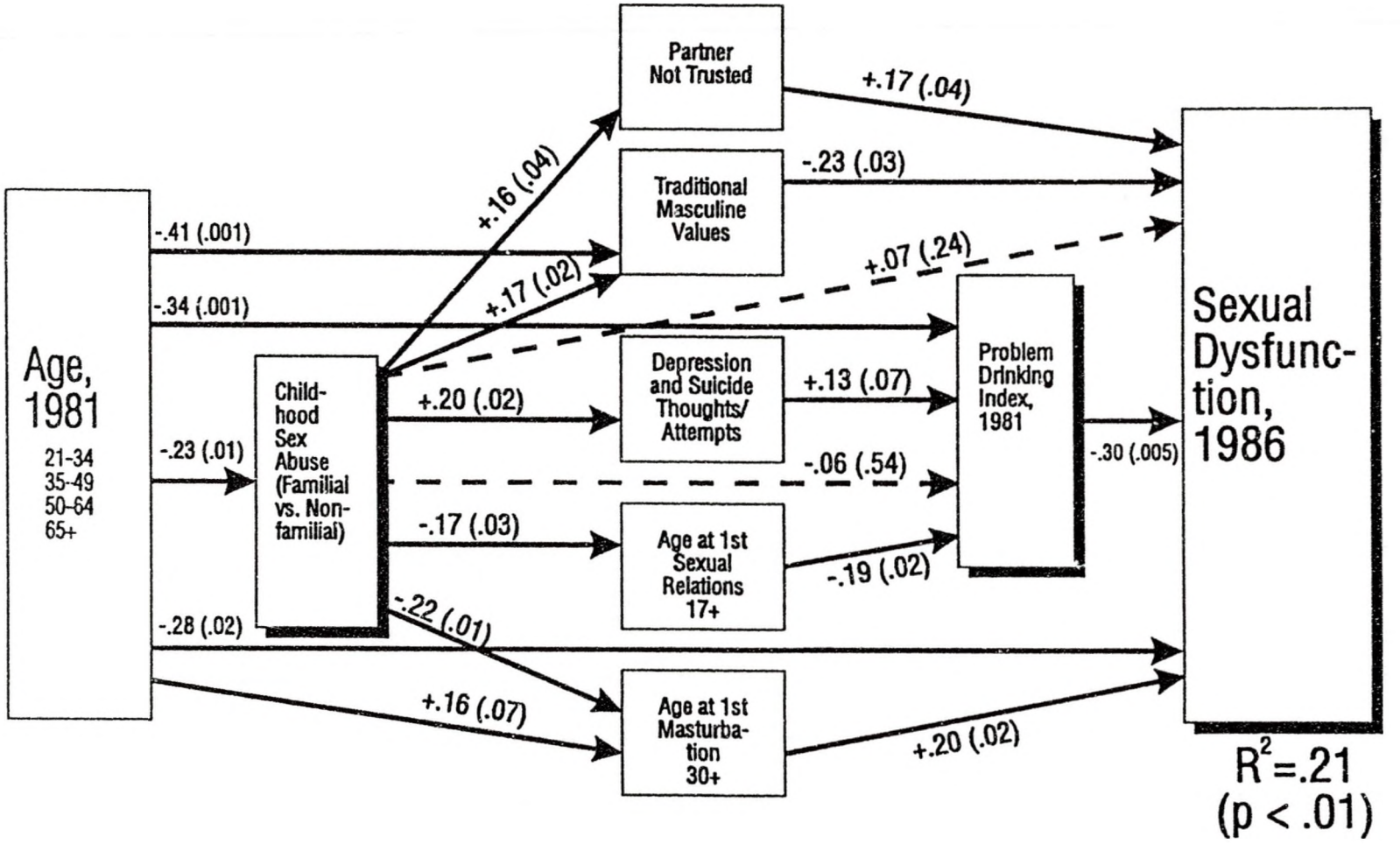

Figure 6. Path Analysis of Childhood Sexual Abuse and 1981 Problem Drinking Index as Predictors of 1986 Sexual Dysfunction, Among 1981 Problem Drinkers.

Table 8

Decomposition of Effects in a Path Analysis of 1986 Problem Drinking Index, Among 1981 Nonproblem Drinkers (Unique Refined Model)

Stages of Predictors	Direct Effects	Indirect Effects	Total Effects	Extraneous Effects	Total Association
Stage I					
Age	-.313	-.067	-.380	-0-	-.380
	(.0005)		(.00005)		
Stage II					
Childhood Sexual	+.124	+.017	+.141	+.011	+.152
Abuse	(.06)		(.04)		
Stage III					
Age of 1st Sexual	-.234	+.014	-.220	-.065	-.285
Relations (17+)	(.003)		(.005)		
Fundamentalist	-.148	-.001	-.149	+.025	-.124
Protestant	(.03)		(.03)		
Stage IV					
Sexual Dys-	-.060	-0-	-.060	+.013	-.047
function in 1981	(.45)		(.45)		

R^2 =.225, $p < .00005$.

Table 9

Decomposition of Effects in a Path Analysis of 1986 Sexual Dysfunction, Among 1981 Nonproblem Drinkers (Unique Refined Model)

Stages of Predictors	Direct Effects	Indirect Effects	Total Effects	Extraneous Effects	Total Association
Stage I					
Age	+.056	-.036	+.026	-0-	+.026
	(.53)		(.77)		
Stage II					
Childhood Sexual	+.150	+.009	+.159	-.001	+.158
Abuse	(.05)		(.04)		
Stage III					
Problem Drinking	+.107	-0-	+.107	+.001	+.108
Index	(.12)		(.12)		

R^2 =.037, p < .17.

Table 10

Decomposition of Effects in a Path Analysis of 1986 Problem Drinking Index, Among 1981 Problem Drinkers (Unique Refined Model)

Stages of Predictors	Direct Effects	Indirect Effects	Total Effects	Extraneous Effects	Total Association
Stage I					
Age	-.104	-.014	-.118	-0-	-.118
	(.23)		(.17)		
Stage II					
Childhood Sexual	+.000	-.003	-.003	+.027	+.024
Abuse	(.50)		(.98)		
Stage III					
Sexual	+.252	-0-	+.252	+.006	+.258
Dysfunction	(.005)		(.005)		
in 1981					

R^2 =.077, p < .02.

Table 11

Decomposition of Effects in a Path Analysis of 1986 Sexual Dysfunction, Among 1981 Problem Drinkers (Unique Refined Model)

Stages of Predictors	Direct Effects	Indirect Effects	Total Effects	Extraneous Effects	Total Association
Stage I					
Age	-.276	+.240	-.036	-0-	-.036
	(.02)		(.68)		
Stage II					
Childhood Sexual	+.073	-.083	-.010	+.009	-.001
Abuse	(.24)		(.92)		
Stage III					
Age of 1st Sexual	-.030	+.058	+.028	-.048	-.020
Relations (17+)	(.38)		(.77)		
Age of 1st Mas-	+.202	+.030	+.232	-.027	+.205
turbation (30+)	(.02)		(.01)		
Depression and	-.117	-.041	-.158	-.022	-.180
Suicide	(.21)		(.10)		
Traditional	-.227	+.001	-.226	+.097	-.129
Masculine	(.02)		(.02)		
Values					
Partner Not	+.171	-.011	+.160	-.016	+.144
Trusted	(.04)		(.05)		

Table 11 (continued)

Stage IV					
Problem Drinking					
Index	-.303	-0-	-.303	+.044	-.259
	(.01)		(.01)		

R^2 =.206, $p < .01$.

more severe the abuse a woman endured as a child, the younger she was when she had her first sexual relations (the abuse experience has not been counted in this age report). And, the age of first sexual relations acts as a mediating variable for developing sexual dysfunction by 1981 (Beta= -.23; $p<.01$): The earlier a woman had her first sexual relations, the more sexual dysfunction she reported in 1981. Earlier sexual relations also predict higher 1986 PDI scores (Beta=-.23; $p<.003$). What is surprising, given these strong time-ordered patterns, is that there is no significant relationship between having sexual dysfunction in 1981 and developing problem drinking by 1986. Here is support for a segment of the predicted model, with a failure in the last connection. The age of first sexual relations may appear to be playing the predicted mediator role between child sex abuse and later sexual dysfunction. However, when the indirect effects are taken into account, it is questionable how big a role this is since the indirect effects (calculated, in the instances of both 1981 sexual dysfunction and 1986 PDI, by multiplying path Betas (-.17 x -.23)) equal only +.04.

Other significant paths were the relationship between child sexual abuse and being a Fundamentalist Protestant in 1981 (Beta=+.16; $p<.03$). The more severe the child sexual abuse, the more likely women were to be Fundamentalist Protestants as adults. Being a Fundamentalist Protestant in

1981 predicted lower levels of problem drinking in 1986 (Beta=-.15; $p<.03$), not a surprising finding. The relationship of age to problem drinking (Beta=-.31; $p<.001$) is also in the predicted direction (Wilsnack et al., 1991). The younger women are more likely to report problem drinking and the older women are more likely to report being older at the time of their first sexual relations (Beta=+.19; $p<.02$) as predicted from earlier studies (Klassen et al., 1989).

The size of the R^2 and associated significance level evidence that this is a strong model. Although there were undoubtedly other variables not considered in this study which contributed to variations in the dependent variable, the ones included here were contributing substantially to the overall model accounting for 1986 problem drinking among 1981 nonproblem drinkers. In general, the total effects of each of the predictors in this model (Table 8) are on the same order of strength and significance as their direct effects. More attention will be given to the results of this model in the Discussion section.

Nonproblem Drinkers with Sexual Dysfunction (1986) as Dependent Variable

Now looking at the model predicting 1986 sexual dysfunction among nonproblem drinkers (Figure 4, Table 9), the R^2 reveals that the variables in this path model did not account for much of the variance at all. Despite the fact that other variables not included in this analysis were

playing a more important role than those which were included (Table 6 shows that the unrefined model had an R^2 over four times as large, with $p<.08$), it is evident that the variables included had some effect in the predicted direction. Child sexual abuse increased a woman's chances of being a problem drinker in 1981 (Beta=+.09; $p<.07$) which in turn increased the likelihood of sexual dysfunction in 1986 (Beta=+.11; $p<.06$). The more severe a woman's abuse experience, the more sexual dysfunction she developed by 1986 (Beta=+.15; $p<.03$). Age was in the predicted direction relative to PDI (Wilsnack et al., 1991) and was the strongest effect in this model (Beta=-.24; $p<.01$). The younger a woman was, the higher her PDI score was in 1981 Table 9 shows that the total effects of abuse on 1986 sexual dysfunction (Beta=+.16, $p<.04$) supported the basic hypothesis of this model. Thus for NPDs in both models (accounting for 1986 problem drinking and sexual dysfunction), child sex abuse was found to have significant total effects ($p<.04$ in both cases) on the 1986 dependent variable.

Problem Drinkers with Problem Drinking (1986) as Dependent Variable

Switching from the nonproblem drinkers to the problem drinkers and beginning again with problem drinking as the dependent variable (Figure 5, Table 10), a first look at the path diagram reveals that this model has little explanatory

power with a very modest R^2 value (R^2=.08, p<.02). Major interconnections are missing, with child sex abuse having neither noteworthy total nor noteworthy direct effects on either sexual dysfunction in 1981 or problem drinking in 1986. None of the mediating variables in this model survived the winnowing process. (Their winnowing depended on their having sex abuse as a significant predictor, and their being significant predictors of sexual dysfunction and/or PDI.) The two relationships of any significance had nothing to do with the effects of child sexual abuse: (a) the older a woman was, the less she reported sexual abuse as a child (Beta=.-23; p<.01), and (b) the more sexually dysfunctional a woman was in 1981, the more problem drinking she reported in 1986 (Beta=+.25; p<.01). The latter is a familiar finding from other analyses of this data set (S. Wilsnack et al. 1991).

Problem Drinkers with Sex Dysfunction (1986) as the Dependent Variable

The final path analysis--of 1981 problem drinkers' sexual dysfunction in 1986 (Figure 6, Table 11)--is by far the most vibrant of all four models. The R^2 is robust and significant. The roles played by the mediating variables in the first half of this model fit predictions (e.g., the positive relationships between sexual abuse and depression/suicide or distrust of partner (Browne & Finkelhor, 1986; Hurley, 1991). However, the hypothesized

model breaks down in the lack of significant relationships between sex abuse and three of the intervening variables, and the fourth stage variable, problem drinking in 1981. One of the puzzling findings in this analysis was the negative relationship between 1981 PDI scores and 1986 sex dysfunction (Beta=-.30; $p<.005$). Stated more meaningfully, this relationship implied that the more problem drinking a woman reported in 1981, the less sexual dysfunction she reported in 1986, or the less problem drinking in 1981 the more 1986 sexual dysfunction, among these 1981 problem drinking women.

Sex abuse in this model did not have significant direct effects on either 1981 problem drinking or 1986 sex dysfunction. In that sense, this model failed at the simplest level. However, upon closer examination, the third stage mediators may be the key to meaning in this model. Several paths were significant between child sexual abuse and the intervening variables. One cluster that was in the predicted direction (Browne & Finkelhor, 1986) showed that the more child sexual abuse a woman had, the more depression and thoughts of or attempts at suicide she had later in life (B=+.20; $p<.02$), which in turn predicted (Beta=+.13; $p<.07$) more problem drinking by 1981. As mentioned above, this subsystem of the model did not go on to predict more, but rather less sexual dysfunction in 1986.

Another significant cluster was one involving age of first sexual relations which was negatively correlated with both child sexual abuse and 1981 problem drinking. Thus, the more severe the child sex abuse, the younger the woman was likely to be at her first sexual relations (B=-.17; $p<.03$) and in turn, the younger the age of first sexual relations, the more problem drinking was likely to be reported in 1981 (B=-.19; $p<.02$). These relationships were in the predicted directions (Browne & Finkelhor, 1986; Wilsnack et. al., 1991) as was the cluster involving depression. Depression and age of first sexual relations were the only two intervening variables directly related to problem drinking in 1981.

The other three intervening variables all related directly to sexual dysfunction in 1986 and played additional roles in the indirect effects of child sexual abuse. A partner who does not try to keep promises made to the respondent (i.e., respondent feels she can not trust her partner) was positively predicted by child sex abuse (B=+.16; $p<.04$) and predicted 1986 sexual dysfunction (B=+.17; $p<.04$). The results were in the expected direction: The more severe the abuse a woman had, the more she reported a distrusted partner (Browne & Finkelhor, 1986), and a distrusted partner, not surprisingly, led to a reporting of more sexual dysfunction in 1986 (Tiefer, 1988).

As one might expect, given the findings of sexual precocity resulting from abuse (Browne & Finkelhor, 1986), age at first masturbation was negatively predicted by child sex abuse (B=.-22; $p<.01$) and positively predicted 1986 sexual dysfunction (B=+.20; $p<.02$). This appears to mean that the more severe the sexual abuse, the earlier the age at which a woman (girl) began to masturbate, and the older a woman was at first masturbation (30+), the more sexual dysfunction she reported in 1986. This latter pattern makes intuitive sense, since a woman who has never masturbated by age 30 would probably answer "yes" to having a lack of sexual interest, one of the indicators making up the sexual dysfunction index, giving her a score of at least 1 out of 3. It also makes sense that sexually abused children's attention would be drawn to their sexuality earlier than that of their nonabused peers. Research has shown (Finkelhor, 1986) that childhood sexual abuse often sexually traumatizes children and is behaviorally manifested in compulsive masturbation, preoccupation with sex, and sexual knowledge and behaviors that are inappropriate to their age group (sexual precocity), causing the child confusion and numerous sexual difficulties as adults (e.g., aversion to sex, flashbacks during sex, and difficulty with arousal and orgasm). It is difficult to understand how early masturbation resulting from this sort of traumatization could facilitate less sexual dysfunction, as this model

appears to predict. Certainly the sexual dysfunction measure was limited (see Discussion section) as it merely measured sexual behavior and interest and did not distinguish obsessive/compulsive sexual behavior resulting from childhood sexual trauma from healthy sexual interest and behavior. However, when the indirect effects are calculated, the contrary effect of less sexual dysfunction associated with more severe sex abuse is quite modest (B= -.04).

Another significant path involved traditional masculine values. The more severe the abuse, the more traditional masculine values the woman had (B=+.17; $p<.02$), and, women with more masculine values tended to report less sexual dysfunction in 1986 (B=-.23; $p<.03$). Again, both phenomena make sense. Women sexually abused as children may be left with feelings of vulnerability and how untrustworthy people can be. Independence may be a reactive defense against these feelings rather than a healthy independence springing from good self-esteem. This would line up better with the majority of findings in the literature, which describe women sexually abused as children as suffering from problems with trust, closeness, and intimacy (Browne & Finkelhor, 1986; Hurley, 1991). The latter finding in this cluster--that women who were independent and autonomous reported less sexual dysfunction--also makes intuitive sense (the measure of traditional masculine values includes assertive verbal

expression, leadership, economic independence, recognition of accomplishments, and having a career or job outside the home). The suggestion that women sexually abused as children who then develop masculine values in coping with their abuse then have less sexual dysfunction does not coincide with earlier literature which tends to show that sexually abused women have more sexual dysfunction and sexual problems than other women (Browne & Finkelhor, 1986; Hurley, 1991). Once again, perhaps the limited nature of the sexual dysfunction measure is the key to understanding this complex finding, as the measure does not take into account inability to attain emotional closeness during sex (a dynamic hypothesized to result from child abuse (Browne & Finkelhor, 1986)). Perhaps by focusing on the "mechanics of sex," the sexual dysfunction measure has missed the traumatic effects of childhood sexual abuse on the more emotional aspects of sexuality. It should be noted here that once the indirect effects are calculated for this particular phenomenon (B=-.04), the effect is quite modest as was the case with early masturbation, mentioned above. This, like the early masturbation finding, is complex and needs further investigation.

Other significant paths were age predicting less traditional masculine values (Beta=-.41; $p<.001$), less problem drinking in 1981 (Beta=-.34; $p<.001$), less child sexual abuse (Beta=-.23; $p<.01$), less sexual dysfunction

(Beta=-.28; p<.02), and older age of first masturbation (Beta=+.16; p<.07). All of these were negative correlations except the last, meaning that the younger women tended to report more traditional masculine values, more problem drinking, more child sexual abuse, and more sexual dysfunction. The older women were more likely to report never having masturbated or later age of first masturbation, which, in turn, predicted more sexual dysfunction (Beta= -.28; p<.02). Perhaps the overall noteworthy observation at this point of the analysis, in contrast to the significant role of childhood sexual abuse in the path models involving 1981 nonproblem drinkers, is that while child sex abuse seems to have played an important part in women being in the problem drinking subsample in 1981 (Table 1), whether by direct or total effects childhood sexual abuse can not be seen as contributing to a clear and direct understanding of--but instead as having a complex and indirect impact on--problem drinking and sexual dysfunction among 1981 problem drinkers. These results will be discussed more completely in the next section.

CHAPTER V

DISCUSSION

To answer the relatively simple questions with which this study began, childhood sexual abuse does predict problem drinking (Hypothesis 1, page 4) and to a lesser degree, sexual dysfunction in adulthood (Hypothesis 2, page 4). However, the more complex time-ordered relationships among these variables are less clear.

Childhood Sexual Abuse as a Predictor of Problem Drinking

Examined retrospectively, more than twice as many women who were problem drinkers in 1981 (23%) reported histories of child sexual abuse than did women who were nonproblem drinkers in 1981 (10%) (Table 1). Examined longitudinally, among those women who were not problem drinkers in 1981, a history of child sexual abuse predicted the onset of one or more indicators of problem drinking by 1986 by a factor of 2 1/2 (51% to 19%) by (Table 2).

The longterm, pervasive, and insidious nature of the effects of having been sexually abused as a child reported by earlier researchers (Browne & Finkelhor, 1986) is evidenced here. Often the effects of child sexual abuse do not show up until years after the abuse experience occurred, thus qualifying this type of trauma for a diagnosis of post

traumatic stress syndrome along with disaster victims and combat soldiers.

Child Sexual Abuse as a Predictor of Sexual Dysfunction

Within both problem drinker and nonproblem drinker subsamples, sexually abused women were more likely than nonabused women to report subsequent sexual dysfunction (Hypothesis 2). Childhood sexual abuse showed a marked (50% vs. 27%) but nonsignificant tendency ($p<.10$) to predict sexual dysfunction among nonproblem drinkers, and problem drinkers showed some support for the same tendency (33% vs. 29%, ns) (Table 3). Although differences approached significance only for the nonproblem drinkers, there was enough support for a relationship between child sexual abuse and later sexual dysfunction to examine this relationship further in the three-variable path models.

The simple three-variable models using the dichotomous, "yes-no" child abuse variable were not revealing. Severity measures of child sexual abuse were developed and compared for robustness and linearity, resulting in the adoption of a measure of severity of child sexual abuse based on the relationship of the perpetrator (familial vs. nonfamilial) to the victim. It was also decided that background and intervening variables should be added to elaborate the simple model.

Comparing The Elaborated Models

Child sex abuse was a stronger predictor of both 1981 problem drinking ($p<.07$) and 1986 problem drinking ($p<.06$)) among nonproblem drinkers than among problem drinkers (Figures 3-6). The apparent lack of effects of child sex abuse on problem drinking among problem drinkers can be misleading if it is not remembered that child sexual abuse already demonstrated its effect on problem drinking by increasing women's chances of being in the problem drinker sample in the first place (Table 1). Child sexual abuse was also a better predictor of 1986 (but not 1981) sex dysfunction among nonproblem drinkers than among problem drinkers.

Although often lacking a direct effect of its own upon the dependent variable (sexual dysfunction or problem drinking) among problem drinkers, child sexual abuse did predict a number of the hypothesized mediating variables. Therefore, having a history of childhood sexual abuse appears to predict many of the problems (e.g., depression, suicidal thoughts or attempts, premature sexual relationships (sex at a younger age), and having troubled relationships (partners whom respondents perceive as untrustworthy and/or verbally hurtful or offensive)) identified in earlier, less methodologically sound studies. An interesting insight gained from this study is that many of these problems, initially caused or contributed to by the

sexual abuse, apparently are severe enough by themselves to put women at risk for further problems, such as problem drinking and sexual dysfunction. Sharon Wilsnack and others have described a "vicious circle" phenomenon (e.g., S. Wilsnack, 1984; S. Wilsnack et al., 1991) in which women may use alcohol to cope with sexual dysfunction or other problems (e.g., depression) but find that drinking only makes the problems worse. According to this interpretation, "vicious circles" would play a relatively greater role in influencing drinking and related behaviors among problem drinking women than among nonproblem drinking women and thus, may override or mask the effects of earlier antecedents such as childhood sexual abuse. This greater influence of contemporary mutually reinforcing cycles among problem drinking women may help explain why childhood sexual abuse (an earlier, more distal predictor) had less effect on problem drinking or sexual dysfunction among problem drinkers in this study than among nonproblem drinkers.

Which Model Works Best?

Different models work best for the problem drinker and nonproblem drinker subsamples. For nonproblem drinkers, the internal dynamics of Model B (childhood sexual abuse predicts 1981 PDI predicts 1986 sexual dysfunction--see Figure 1) work relatively well, with near-significant paths in the predicted patterns. However, the overall R^2 is not significant. Model A (childhood sexual abuse predicts 1981

sexual dysfunction predicts 1986 PDI) overall explains more variance, but sex dysfunction does not play its expected role as a mediator of the effects of child sexual abuse on 1986 problem drinking. (Compare Figures 4 and 3; Tables 9 and 8).

For problem drinkers, child sexual abuse does not have significant direct paths to either 1981 or 1986 PDI or sex dysfunction (perhaps because of the stronger effects of the "vicious circles" mentioned earlier). Looking only at the two-variable subsystem of sex dysfunction and PDI, the findings for problem drinkers fit Model A (sex dysfunction predicts PDI) considerably better than Model B (PDI predicts sex dysfunction) (where PDI is in fact a negative predictor of sex dysfunction--see Figure 6). One possible interpretation of the general pattern found in the problem drinker and nonproblem drinker models is that child sexual abuse may have a stronger influence on women's becoming problem drinkers in the first place, while sexual dysfunction and other current influences are more responsible for perpetuating their chronicity as problem drinkers. (See S. Wilsnack et al, 1991 for predictions of onset and chronicity of problem drinking.)

Unexpected Findings

Further research is needed to explain some of the unexpected findings in the present analysis. There are three main unexpected findings. The first surprising

finding is that the problem drinkers are not higher than the nonproblem drinkers on 1986 sexual dysfunction (Table 3), given the elevation of sexual dysfunction among heavier drinking women found in earlier analyses by Klassen and Wilsnack (1986) using the 1981 full sample of 917 women. Could this lack of difference be the result of some respondents classified as problem drinkers or nonproblem drinkers in 1981 showing increases or decreases in problem drinking between 1981 and 1986 (see Wilsnack et al., 1991), resulting in changes in their sexual functioning by 1986? (Recall that respondents' designation as a problem or nonproblem drinker reflects their 1981 status, not their status in 1986.)

Another difficult to understand finding is that two results of child sexual abuse, earlier masturbation (before the age of 30) and having traditional masculine values (independence and assertiveness), seem to somehow "neutralize" the negative effects of sexual abuse. When indirect effects are considered, this effect is reduced substantially--early masturbation (Beta=-.04), masculine values (Beta=-.04)--but is still difficult to understand. The more common measurement of sexual dysfunction used in this study does not distinguish sexual behavior resulting from childhood sexual trauma (e.g., obsessive/compulsive sexual behavior and interest and/or inability to attain emotional closeness during sex) from other sexual behavior.

The unhealthy nature of the sexual behavior of these abused women, we hypothesize, may go undetected by this medicalized model of sexual dysfunction. Further investigation with a more sensitive and broader sexual dysfunction measure would be helpful for clarifying these relationships.

Perhaps most surprising was the substantial negative relationship between 1981 problem drinking and 1986 sexual dysfunction among problem drinkers, which challenges one of the basic assumptions of the original hypotheses--that problem drinking is a predictor of sexual dysfunction. Could this negative relationship between problem drinking and subsequent sexual dysfunction be the result of drinking having a facilitative effect on sexual functioning? Or could it be the product of women who were problem drinkers in 1981 having reduced their drinking which, in turn, led to improvements in sexual functioning? Future studies should be designed to help clarify these puzzling questions.

Limitations of This Study and Suggestions for Further Research

Care must be taken in generalizing these findings to nonwhite, nonheterosexual women and women not of the Christian tradition. Although respondents from many of these minorities were represented in the 1986 followup sample, they were present in such small numbers (sometimes less than one due to weighting procedures) that any distinctive features of these groups are obscured. Another

result of such small Ns was the inability to examine and compare these subgroups statistically. This was especially unfortunate due to the paucity of information available regarding child sexual abuse among minority women (Russell & Wilsnack, 1991).

The rates of child sexual abuse obtained in the present study were lower than those found by several other surveys designed specifically to investigate child sexual abuse. For this reason, it is suspected that the lower rates of sexual abuse in the present study may be the product of underreporting. Therefore, efforts are being made to modify the sex abuse questions in order to attain a more valid rate of self-reporting. If funds are available, the method of administration will also be changed for the upcoming 1991 ten-year followup survey. Recent research tends to show that personal interviews by interviewers trained in sexual abuse issues yield the most valid self-reporting of child sex abuse experiences (Wyatt, Peters, & Finkelhor, 1986; Miller, 1991). The lower rates of child sexual abuse reported in this study suggest that a substantial number of women with unreported sexual abuse experiences were, for statistical purposes, included in the nonabused category along with women with no child sexual abuse histories. If this was the case, their presence would have diluted differences between abused and nonabused categories and might account for some of the relatively weak patterns and

effects obtained for child sexual abuse. It is therefore noteworthy that the patterns are as clear and consistent as they are.

Another limitation was the sexual dysfunction measure which, although based on the best the field has to offer at this time, falls short, in this researcher's opinion, as an adequate measure of women's sexual difficulties and dysfunctions. According to Tiefer (1988), a feminist sex researcher and clinician, "what is really important to women in sexual life has been neglected by those who are `officially' in charge of defining and describing norms for sexuality in favor of a nosology which focuses exclusively on physical performance elements [i.e., orgasms, vaginismus]" (p. 16). According to Tiefer, several studies have shown that for women, sexual satisfaction has more to do with the emotional climate than with the frequency of orgasm. The development of a better measure of sexual dysfunction would get away from the medicalization of sexuality (Reissman, 1983) and take into account the social contributions to women's sexual complaints, such as rigid sex roles, relationships of unequal power, absence of positive sexuality attitudes and training, and histories of sexual abuse (Tiefer, 1988). In researching the sexuality of sexually abused women, it is imperative to redefine sexual dysfunction. Seidler-Feller (cited in Tiefer, 1988) argues that women's "sexual dysfunctions" such as lack of

interest or lack of arousal [or lack of orgasm] may be forms of resistance to inequality and exploitation in a relationship, and should be viewed as positive and healthy in these circumstances. Traditional measures of sexual dysfunction such as employed in this study classify such behavior as dysfunctional without distinguishing the motivation. On the other hand, most traditional sexual dysfunction measures would misclassify compulsive sexual behavior as functional as such measures are not sensitive enough to distinguish compulsive sexual behavior from healthy sexual behavior. It is imperative to develop better measures of sexual dysfunction for women, especially when assessing "sexual dysfunction" among sexually abused women.

Researchers of child sexual abuse are recognizing the need for studies with more depth. In a recent consultation with Dr. Brenda Miller (1991), a leading researcher whose studies of alcohol abuse and child sex abuse have been reviewed earlier in this text, she noted this same concern and suggested the inclusion of key qualitative questions in every research study of child sexual abuse in order to obtain a deeper, more complete understanding of the processes investigated. Although a statistical procedure was employed in the present study which comes closer than many to capturing the "whole" picture, meanings behind some of the key findings are elusive. Therefore, including

several well-thought-out unstructured questions might be helpful in the 1991 ten-year followup questionnaire, especially for the purpose of better understanding some of the findings related to sexuality (e.g., some child sex abuse respondents appear to be quite sexually active as adults, some even sexually precocious as children, while others appear to have the opposite reaction and avoid sex altogether). Anecdotal evidence from clinicians (Smolover & Lieberman, 1986) suggests that a woman may be functioning "normally" sexually into her 30's and 40's when memories of her childhood sexual abuse may surface and interrupt her sexual relationship(s) with disturbing nightmares or flashbacks. A desire for celibacy for five years or more during the period of time when the child sexual abuse is being worked through is not uncommon, according to these clinicians. The ten-year followup might provide a unique opportunity to examine sexually abused women's sexual development over time and discern such patterns.

Clinical Applications

Understanding that child sexual abuse may predispose women to problem drinking and sexual dysfunction as well as a myriad of other consequences such as depression and suicide and troubled relationships can be useful in planning strategic early intervention with children known to have been sexually abused. When working with adult women presenting with alcohol problems or sexual dysfunction, it

would be wise to check carefully for a history of child sexual abuse. Without treating such abuse, the prognosis for a full recovery is doubtful. Many women seek help for problems other than their sexual abuse. Sometimes this is because the abuse is difficult to talk about or because of the stigma attached and their fear of being judged or blamed for such experiences. Some women do not relate their current problems to their earlier sexual abuse experience. Others are unable to recall the abuse, having repressed it from their consciousness. For a better prognosis, the abuse must be dealt with.

Ultimately, on the primary prevention level, society's attitudes toward women and sexuality must change and an understanding of the abuse inherent in sexual relationships between people of differential power levels must be better understood. When as many as one-third of the girls in this country are being sexually abused, equality between the sexes is merely a myth.

APPENDIX A

QUESTIONNAIRE ITEMS

SEXUAL ABUSE

HANDOUT #4 - PERSONAL EXPERIENCES

More and more women are remembering and speaking out these days about experiences, in childhood or after growing up, in which someone tried to make them, not necessarily violently, have sexual activity they really did not want. This might have been intercourse or other forms of sexual activity.

Many call this rape or attempted rape, but others may not call it rape every time. Many women blame themselves if it happened, even though they had no control over the situation. Others may blame the woman as though it were her fault, or think she might have somehow avoided it. Many people know this can happen with husbands, lovers, parents or other family members, as well as with more distant persons and strangers.

You may or may not call such experiences rape, but please answer these questions for any experiences like this that you have ever had.

- o BE SURE TO INCLUDE OTHER SEXUAL ACTIVITY AS WELL AS INTERCOURSE.
- o BE SURE TO INCLUDE BOTH CHILDHOOD AND ADULT EXPERIENCES.

1. Have you ever had such an experience?

YES ...(PLEASE GO TO 2)..... 1

NO ....(GO TO BOTTOM OF NEXT PAGE)..... 2

---

2. On how many occasions has this happened? (PLEASE CIRCLE ONE NUMBER)

One occasion 1
Two occasions 2
More than two occasions 3

---

3. In which of the following ways did it ever happen?

...with a stranger or strangers?	YES ..... 1 NO 2
...with a boyfriend, steady date, or romantic partner (not your husband)?	YES ..... 1 NO 2
...with your husband?	YES ..... 1 NO 2
...with someone you knew, not a family member?	YES ..... 1 NO 2
...with your father or step-father?	YES ..... 1 NO 2

PERSONAL EXPERIENCES - continued

...with a brother or male cousin?	YES ..... 1 NO 2
...with a grandfather or uncle?	YES ..... 1 NO 2
...with some other family member or relative?	YES ..... 1 NO 2

4. At what age did this first happen? |__|__| YEARS OLD

5. If it happened more than once, at what age did it last happen?

   (If happened only once, check box: |__|) |__|__| YEARS OLD

6. How would you now describe your feelings about the effects this experience has had on you? (PLEASE CIRCLE ONE NUMBER FOR EACH QUESTION)

   (If more than one time, please think about the worst time.)

... painful or frightening?	YES ..... 1 NO 2
... surprised or shocked you?	YES ..... 1 NO 2
... made you feel guilty?	YES ..... 1 NO 2
... made you feel angry?	YES ..... 1 NO 2
... had trouble, or am having trouble getting over it?	YES ..... 1 NO 2

PLEASE NOW PUT THIS HANDOUT IN THE "PRIVACY" ENVELOPE.
THANK YOU.

AGE

INTERVIEWER: BEFORE BEGINNING INTERVIEW, BE SURE THAT THE DATE OF THE INTERVIEW AND CASE ID NUMBER ARE RECORDED ON THE QUESTIONNAIRE COVER. CHECK TO SEE THAT THIS ID NUMBER ALSO APPEARS ON AN HHE/SCREENER AND ON A "PRIVACY ENVELOPE" FOR EVERY INTERVIEW.

We would like to begin this interview by asking you some questions about you and your family.

1. In what year were you born?

YEAR OF BIRTH: | 1 | 9 | | |

FUNDAMENTALIST PROTESTANT IN 1981

21. In what religion were you raised?

HAND CARD I

Protestant	1
Catholic	2
Jewish	3
Other	4
None ..... (SKIP TO B)	5

B. What is your religious preference now?

Protestant	1
Catholic ....(SKIP TO D)	2
Jewish .....(SKIP TC D)	3
Other .....(SKIP TO D)	4
None .....(SKIP TO D)	5

C. IF PROTESTANT, ASK: Do you consider yourself a fundamentalist Protestant?

Yes	1
No	2

64. Was there ever a time when your eating increased so much that you gained as much as two pounds a week for several weeks, or ten (10) pounds or more altogether?

Yes ..... (CHECK BOX IN MARGIN) 1
No 2
Don't know 8

A. About how much do you weigh now?

ENTER NUMBER OF POUNDS: ☐☐☐

B. How tall are you?

ENTER NUMBER OF FEET: ☐

ENTER NUMBER OF INCHES: ☐☐

65. Were there ever two weeks or more when you had trouble with sleeping: waking too early, or sleeping too much, not staying asleep, or trouble falling asleep--any trouble sleeping?

Yes ..... (CHECK BOX IN MARGIN)..... 3
No 4
Don't know 8

66. . . . or two weeks or more when you felt tired out all the time?

Yes ..... (CHECK BOX IN MARGIN) 1
No 2
Don't know 8

DEPRESSION

Now we have some questions about how you've been feeling.

61. Have you ever in your life had two weeks or more during which you felt sad, blue, depressed, or when you lost all interest and pleasure in things you usually cared about?

Yes 1
No ..... (SKIP TO Q. 84) 2
Don't know 8

62. Have there ever been two weeks or more when you lost your appetite, whether or not you continued to eat the same amount of food?

Yes ..... (CHECK BOX IN MARGIN) 3
No 4
Don't know 8

63. Have you ever lost weight without trying--as much as two pounds a week for several weeks, or as much as ten (10) pounds altogether?

Yes ..... (CHECK BOX IN MARGIN) 5
No 6
Don't know 8

67. . . . or two weeks or more when you had to be moving all the time, or couldn't sit still, or paced up and down?

Yes ..... (CHECK BOX IN MARGIN) 3
No 4
Don't know 8

68. . . . or two weeks or more when you talked or moved more slowly than is normal for you?

Yes .. (CHECK BOX IN MARGIN) 1
No 2
Don't know 8

69. . . . or several weeks when your interest in sex was a lot less than usual?

Yes ..... (CHECK BOX IN MARGIN) 3
No 4
Don't know 8

70. Were there ever two weeks or more when you felt worthless, sinful, guilty?

Yes ..... (CHECK BOX IN MARGIN) 1
No 2
Don't know 8

---

71. . . . or two weeks or more when your thoughts came much slower than usual, or seemed mixed up, OR you had a lot more trouble concentrating than is usual for you?

Yes ..... (CHECK BOX IN MARGIN) 3
No 4
Don't know 8

72. . . . or two weeks or more when you thought a lot about death, either your own, someone else's, or death in general?

Yes ..... (CHECK BOX IN MARGIN) 1
No 2
Don't know 8

73. . . . or two weeks or more when you felt like you wanted to die?

Yes ..... (CHECK BOX IN MARGIN) 3
No 4
Don't know 8

74. Have you ever felt so low you thought of committing suicide?

Yes ..... (CHECK BOX IN MARGIN) 1
No 2
Don't know 8

75. Have you ever attempted suicide?

Yes ..... (CHECK BOX IN MARGIN) 3
No 4
Refused 8

ENTER TOTAL NUMBER OF "YES" BOXES
CHECKED IN MARGIN (QS 62-75):

ENTER NUMBER OF BOXES: ☐☐

IF THREE OR MORE BOXES, GO ON TO Q. 76
IF FEWER THAN THREE BOXES, SKIP TO Q. 84

76. Was there ever a time when several of the problems you mentioned, such as (NAME ALL BOXES CHECKED IN MARGIN) happened together--that is, within the same month?

Yes 1
No ..... (SKIP TO Q. 84) 2
Don't know . (SKIP TO Q. 84) 8

77. Did you ever have a spell with several of these problems in the same month, when you also had two or more weeks of feeling sad, blue, or depressed, or when you lost all interest and pleasure in things that you usually cared about?

Yes 3
No ..... (SKIP TO Q. 84) 4
Don't know ....(SKIP TO Q. 84) 8

78. IF YES TO Q. 77, ASK: Thinking of the spells when several of these problems were combined with moods of sadness, depression, loss of interest, how many times have you had such spells (in your lifetime) that lasted two or more weeks?

ENTER NUMBER OF SPELLS: ☐☐

79. Using the scale on this card, about how much did (that spell/those spells) interfere with your everyday life or activities? Just give me a number from the scale, with "1" if not at all, and "5" if it was a great deal. (IF R VOLUNTEERS THAT THESE SPELLS VARIED IN SEVERITY, ASK FOR THE WORST SPELL.)

HAND CARD S	NOT AT ALL				A GREAT DEAL
	1	2	3	4	5

80. How old were you . . .

A. . . . (when/the first time) you had such a spell which lasted two weeks or more?

ENTER AGE: [|]

IF MORE THAN ONE SPELL, ASK B:

B. . . . and when you had the most recent spell of two weeks or more when you felt sad or depressed and had some of these other problems?

ENTER AGE: [|]

PERSONAL VALUES

41. Next, I'm going to list a number of things that are important to many people. Using the scale on this card, would you please describe how important each of these things is to you by choosing a number on the scale. Just give a number for each statement. READ EACH ITEM. CIRCLE ONE CODE FOR EACH.

HAND CARD O

How important is it to you ...	Very Important					Not at All Important
A. to have other people follow your ideas about how things should be done?	1	2	3	4	5	6
B. to be married?	1	2	3	4	5	6
C. to say what you think even if other people don't agree with you?	1	2	3	4	5	6
D. to know that people you like want to spend time with you?	1	2	3	4	5	6
E. to have children?	1	2	3	4	5	6
F. to get help from others when you have a hard decision to make?	1	2	3	4	5	6
G. to earn your own income?	1	2	3	4	5	6
H. to have a job or career outside the home?	1	2	3	4	5	6
I. to be greatly respected and admired for how well you do your work?	1	2	3	4	5	6

INTERPERSONAL TRUST AND CONFLICT

ASK EVERYONE:

32. We all know that (marriages/close relationships) vary from time to time. How often is each of these things true in your relationship with your (husband/ wife/living partner/friend)--frequently, sometimes, rarely, or never?

	Frequently	Sometimes	Rarely	Never
Your (husband/wife/ living partner/friend) ...				
A. is completely honest and truthful with you.	1	2	3	4
How often do you ...				
C. feel hurt or offended by something (he/she) says or does?	1	2	3	4

A. IF 1, 2, OR 3 IS CODED, ASK: How old were you when you began to feel the way you do now?

ENTER AGE ☐☐

DK 98

30-DAY DRINKING: QUANTITY-FREQUENCY

Now we would like to ask you some questions about the alcoholic beverages you might have used during the last 30 days. (Again, if you once drank but currently do not, please answer these questions for the last 30 days during which you were drinking.)

95. First of all, we have some questions about your use of wine. About how often in the last 30 days (that you drank) did you drink wine?
PROBE IF NECESSARY: It's sometimes hard to remember. Just give me your best guess.

HAND CARD W

More often than once a day 01
Every day 02
5 or 6 days a week 03
3 or 4 days a week 04
1 or 2 days a week 05
Less often than once a week 06
Did not drink any wine ..... (SKIP TO Q. 99) 07
IF CANNOT DECIDE: Can't remember 98

---

96. Thinking back over the last 30 days (that you drank), on a typical day when you drank wine, about how many glasses did you usually drink in a day?
PROBE IF NECESSARY: If you're not sure, just your best guess will do.

INSTRUCTION TO INTERVIEWER: RESPONDENT MAY HAVE DRUNK ON MORE THAN ONE OCCASION DURING A SINGLE DAY; TOTAL FOR ALL OCCASIONS IN A DAY IS DESIRED.

ENTER NUMBER OF GLASSES: ☐☐
Don't know 98

---

97. Did you usually drink a regular wine or a fortified wine such as sherry, vermouth, or Dubonnet?

Regular wine 1
Fortified wine 2

---

98. Now, thinking back over those 30 days, what was the most wine you had to drink at one time--how many glasses?
PROBE IF NECESSARY: If you're not sure, just your best guess will do.

INSTRUCTION TO INTERVIEWER: "AT ONE TIME" REFERS TO ONE SITTING OR ONE OCCASION.

ENTER NUMBER OF GLASSES: ☐☐
Don't know 98

99. Looking back again over the last 30 days (that you drank), about how often did you drink beer? (REFER TO CARD W)
PROBE IF NECESSARY: It's sometimes hard to remember. Just give me your best guess.

	More often than once a day	01
	Every day	02
	5 or 6 days a week	03
	3 or 4 days a week	04
	1 or 2 days a week	05
	Less often than once a week	06
	Did not drink any beer ..... (SKIP TO Q. 102)	07
IF CANNOT DECIDE:	Can't remember	98

---

100. Now think back over that 30-day period. On a typical day when you drank beer, about how much beer did you drink in a day?

INSTRUCTION TO INTERVIEWER: RESPONDENT MAY HAVE DRUNK ON MORE THAN ONE OCCASION DURING A SINGLE DAY; TOTAL FOR ALL OCCASIONS IN ONE DAY IS DESIRED.

ENTER NUMBER OF GLASSES: ☐☐

OR

ENTER NUMBER OF CANS OR BOTTLES: ☐☐

Don't know 98

A. How large were the glasses, cans, or bottles that you usually drank?

Less than 12 ounces	1
12-ounce glasses, cans, or bottles	2
16-ounce (half quart) glasses, cans, or bottles	3
Don't know	8

---

101. Looking back over that 30-day period, what was the most beer you had at one time--how many glasses, cans, or bottles of beer?

INSTRUCTION TO INTERVIEWER: "AT ONE TIME" REFERS TO ONE SITTING OR ONE OCCASION.

ENTER NUMBER OF GLASSES: ☐☐

OR

ENTER NUMBER OF CANS OR BOTTLES: ☐☐

Don't know 98

102. And how often did you hav liquor during those 30 days--that is, gin, whiskey, vodka, mixed drinks, t gs like that? (REFER TO CARD W)
PROBE IF NECESSARY: It's sometimes hard to remember. Just give me your best guess.

	More often than once a day 01
	Every day 02
	5 or 6 days a week 03
	3 or 4 days a week 04
	1 or 2 days a week 05
	Less often than once a week 06
	Did not drink any liquor ..... (SKIP TO Q. 106) 07
IF CANNOT DECIDE:	Can't remember 98

---

103. On a typical day when you drank liquor during that 30-day period, about how many drinks did you usually have in a day?
INSTRUCTION TO INTERVIEWER: RESPONDENT MAY HAVE DRUNK ON MORE THAN ONE OCCASION DURING A SINGLE DAY; TOTAL FOR ALL OCCASIONS IN ONE DAY IS DESIRED.

ENTER NUMBER OF GLASSES: ☐☐

Don't know 98

---

104. About how many ounces of liquor are there in the drinks that you usually drink?

One ounce (one shot)	1
1.5 ounces (one jigger)	2
2 ounces (two shots)	3
3 ounces (two jiggers, three shots)	4
4 ounces (four shots)	5
5 or more ounces (three or more jiggers)	6
Don't know	8

---

105. Now, thinking back over <u>those same 30 days</u>, what was the most liquor that you had to drink at one time--the greatest number of drinks?
PROBE IF NECESSARY: If you're not sure, just your best guess will do

INSTRUCTION TO INTERVIEWER: "AT ONE TIME" REFERS TO ONE SITTING OR ONE OCCASION.

ENTER NUMBER OF DRINKS: ☐☐

Don't know 98

HEAVY EPISODIC DRINKING

105. Now I would like to ask you some questions about your use of alcoholic beverages during the last 12 months (that you drank). How often did you have 6 or more drinks of wine, beer, or liquor in a single day? (REFERENCES AS NEEDED: That would be a bottle or more of wine / more than 2 quarts of beer / a half pint or more of liquor.)

HAND CARD X

5 times a week or more 01
3 to 4 times a week 02
Once or twice a week 03
1 to 3 times a month 04
8 to 11 times in 12 months 05
4 to 7 times in 12 months 06
1 to 3 times in 12 months 07
Never in those 12 months 08

INTOXICATION

108. And about how often in those 12 months did you drink enough to feel drunk--that is, where drinking noticeably affected your thinking, talking, and behavior?

5 times a week or more 01
3 to 4 times a week 02
Once or twice a week 03
1 to 3 times a month 04
8 to 11 times in 12 months 05
4 to 7 times in 12 months 06
1 to 3 times in 12 months 07
Never in those 12 months 08

DRINKING PROBLEMS

INFREQUENT DRINKERS AND ABSTAINERS (IAs), SKIP TO INSTRUCTIONS BEFORE Q. 136.

Now I'm going to read a list of drinking-related experiences which many people have as they go through life. Has any of the following ever happened to you?

	Ever happened?	IF YES: How often would you say this has happened during the last 12 months?
115. You drove a car when you felt drunk or high from drinking.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
116. Your drinking led to an accident in your home.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
117. Drinking had a harmful effect on your housework or chores around the house.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
118. Drinking may have hurt your chances of getting a job, or your chances for a promotion or better work assignment.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
119. You started a fight with someone outside your family when you had been drinking.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
122. Your (husband/wife/partner) told you that you should cut down on your drinking.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5

	Ever happened?	IF YES: How often would you say this has happened during the last 12 months?
123. You started an argument or fight with your (husband/wife/partner) when you had been drinking.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
124. Your (husband/wife/partner) threatened to leave you because of your drinking.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
IF R HAS CHILDREN: 125. You felt that your drinking caused problems between you and your children.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5

IAs AND MALE ABSTAINERS
SKIP TO INSTRUCTIONS
BEFORE Q. 136

ALCOHOL DEPENDENCE SYMPTOMS

Have you ever had any of these experiences?

	Ever happened?	IF YES: How often would you say this has happened during the last 12 months?
130. At times, you could not remember some of the things you had done while drinking.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
131. You tossed down several drinks fast, to get a quicker effect from them.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
132. You took a drink as soon as you got up in the morning.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
133. You could not stop drinking before becoming intoxicated.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5
134. You tried to cut down or quit drinking but were unable to do so.	Yes .. 1 No ... 2	Not at all ..... 3 Once or twice ..... 4 Three times or more .. 5

AGE AT FIRST SEXUAL RELATIONS AND AT FIRST MASTURBATION TO CLIMAX

HANDOUT #2 - PERSONAL RELATIONSHIPS

Sometimes people's health and happiness affect their sexual functioning. Sometimes sex can be a source of joy. Sometimes it is a source of frustration and pain. Some people say sex has been very important to them. Others say they could have gotten along just as well without sex.

These pages have some questions about sexual experience. Please answer them as well as you can, following the instructions on each question. Feel free to ask me if there is something you do not understand.

When you have finished, please place the answer sheets in the "privacy envelope" I gave you earlier.

1. During your lifetime, has sex been... (PLEASE CIRCLE ONE NUMBER)

very important to you, ...	1
quite important to you, ...	2
somewhat important to you, ...	3
not too important to you, ...	4
or could you have gotten along just as well without it?	5

---

2. What was your age when you first had sexual relations with a partner, when either you or your partner was old enough to come to a climax?

ENTER AGE FOR FIRST TIME: |__|__|

If you have never had sex with a partner, please check this box |__| then GO TO 11.

A. Was this when you were first married?

Yes	1
No	2

---

13. What was your age the first time you came to a sexual climax by yourself?

ENTER AGE FOR FIRST TIME: |__|__|

If this has never happened, please check this box |__| then GO TO 14.

PRIMARY SEXUAL DYSFUNCTION

156. Please read each statement and circle the answer code that fits you best. Then go to the next statement, unless there is an instruction next to your answer which directs you to another question.

Please follow the instructions, or ask the interviewer if you need help following them.

		CIRCLE EITHER "1" FOR TRUE OR "2" FOR FALSE	
A.	Sexual relations have sometimes been so physically painful for me that I could not have intercourse.	TRUE	1
		FALSE	2
C.	I have never had any interest or enjoyment in sexual relations.	TRUE	1 (GO TO E)
		FALSE	2 (GO TO D)
E.	I have never come to a sexual climax (had an orgasm) in sexual activity with a partner.	TRUE	1 (GO TO F)
		FALSE	2 (GO TO G)

H. When having sex with a partner, about how regularly have you come to a sexual climax?

CIRCLE ONLY ONE NUMBER

Very seldom	1
Sometimes (about 25 percent)	2
About half the time	3
Most of the time (about 75 percent)	4
Just about all the time	5

APPENDIX B

INITIAL BIVARIATE ANALYSES

Table 12

1986 Alcohol Use and Abuse Among Women With and Without Histories of Child Sexual Abuse

	Problem Drinkers[a] No Child Sexual Abuse (N=110)	Problem Drinkers[a] Any Child Sexual Abuse (N=33)	p<	Nonproblem Drinkers[a] No Child Sexual Abuse (N=141)	Nonproblem Drinkers[a] Any Child Sexual Abuse (N=16)	p<
Problem Drinking Index[b] (% One or more indicators in past 12 months)	80.4 (107)	89.4 (33)	ns	19.2 (130)	51.1 (16)	.01
Drinking Level (% Moderate to Heavy- .22 oz. or more ethanol/day)	46.9 (108)	29.6 (33)	ns	17.1 (133)	18.6 (16)	ns
Problem Consequences (% One or more in past 12 months)	53.9 (108)	50.4 (33)	ns	8.2 (130)	21.0 (16)	ns
Dependence Symptoms (% One or more in past 12 months)	39.8 (107)	36.1 (33)	ns	4.8 (133)	10.1 (16)	ns
Heavy Episodic Drinking (Six or more drinks/day: one or more times in the past 12 months)	65.5 (109)	61.1 (33)	ns	18.8 (133)	35.5 (16)	ns
Drank enough to feel drunk (% One or more times in the past 12 months)	73.7 (109)	86.5 (33)	.10	18.1 (133)	44.8 (16)	.05

[a]Problem Drinker and Nonproblem Drinker subsamples are based on 1981 drinking behavior. All data on childhood sexual abuse and on longterm consequences of sexual abuse were gathered in 1986.

[b]Sums the presence in the past 12 months of (1) any episode of intoxication, (2) any drinking problem and (3) any alcohol dependence symptom.

Table 13

Drug Use Among Women With and Without Histories of Child Sexual Abuse.

	Problem Drinkers			Nonproblem Drinkers		
	No Child Sexual Abuse (N=110)	Any Child Sexual Abuse (N=33)	p<	No Child Sexual Abuse (N=141)	Any Child Sexual Abuse (N=16)	p<
Have you used any of the following substances several times a week or more at any time during the past five years? (% Yes)						
Tranquilizers (like (% One or more indicators in past 12 months)	19.7 (109)	18.5 (33)	ns	8.6 (133)	13.2 (16)	ns
Marijuana or hashish	6.0 (109)	27.6 (33)	.001	3.1 (133)	10.1 (16)	ns
Amphetamines ("Uppers," prescription diet pills)	6.6 (109)	25.2 (32)	.01	1.2 (133)	6.9 (16)	ns
Barbiturates, prescription sleeping pills. Quaaludes, or other "downers"	7.6 (109)	12.6 (33)	ns	3.5 (133)	6.9 (16)	ns
Cocaine or crack	4.6 (109	14.0 (33)	.10	2.2 (133)	6.9 (16)	ns
Narcotics like codeine, morphine, heroin, or methadone	10.4 (109)	28.0 (33)	.05	4.8 (131)	28.3 (16)	.01
At any time since the fall of 1981, have you used any of the following non prescription medicines--the kind you can buy in a drug store--every day or nearly every day for more than two weeks at a time? (%Yes)						
Non-prescription painkillers or tranquilizers	19.9 (109)	19.3 (33)	ns	12.9 (133)	32.3 (16)	.05
Non-prescription sleeping aids	3.7 (109)	0.0 (33)	ns	0.0 (133)	3.5 (16)	ns
Non-prescription cough medicine	11.1 (109)	20.8 (33)	ns	13.7 (133)	21.3 (16)	ns

Table 14

Depression and Suicidal Ideation and Behavior Among Women With and Without Histories of Child Sexual Abuse.

	Problem Drinkers			Nonproblem Drinkers		
	No Child Sexual Abuse (N=110)	Any Child Sexual Abuse (N=33)	p<	No Child Sexual Abuse (N=141)	Any Child Sexual Abuse (N=16)	p<
Depression:						
Depressive Episodes (DIS criteria: low mood and three or more depressive symptoms) (% Ever)	37.0 (109)	54.5 (33)	.10	33.8 (133)	31.9 (16)	ns
Have you ever in your life had two weeks or more during which you felt sad, blue, depressed, or when you lost all interest and pleasure in things you usually cared about? (% Yes)	58.6 (107)	77.7 (33)	.05	53.5 (133)	61.3 (16)	ns
Has there ever been such a period that lasted at least one week or more?	67.3 (107)	91.8 (32)	.01	64.1 (133)	74.0 (16)	ns
Thoughts of Death and Suicide:						
Were there ever two weeks or more when you thought a lot about death, either your own, someone else's, or death in general? (% Yes)	54.3 (109)	55.4 (33)	ns	44.4 (133)	34.7 (16)	ns
Or two weeks or more when you felt like you wanted to die? (% Yes)	13.9 (109)	19.2 (33)	ns	8.3 (133)	18.0 (16)	ns
Have you ever felt so low you thought of committing suicide? (% Yes)	22.8 (109)	51.3 (33)	.01	10.5 (133)	33.8 (16)	
Have you ever attempted suicide? (% Yes)	8.2 (109)	23.6 (33)	.05	0.6 (133)	3.3 (15)	ns

Table 15

Self-Esteem and Locus of Control in Women With and Without Histories of Child Sexual Abuse.

	Problem Drinkers			Nonproblem Drinkers		
	No Child Sexual Abuse (N=110)	Any Child Sexual Abuse (N=33)	$p<$	No Child Sexual Abuse (N=141)	Any Child Sexual Abuse (N=16)	$p<$
Self-Esteem:						
Were there ever two weeks or more when you felt worthless, sinful, or guilty? (% Yes)	35.9 (109)	62.8 (33)	.01	30.7 (133)	24.9 (16)	ns
In how many ways would you like to be different? (% Few to many)	77.0 (109)	80.3 (33)	ns	75.2 (130)	92.4 (16)	.10
I feel inferior. (% Yes)	12.0 (109)	13.0 (33	ns	11.1 (133)	6.3 (16)	ns
I am not a self-confident person. (% Yes)	39.6 (109)	40.7 (33)	ns	33.3 (133)	52.1 (16)	ns
Locus of Control:						
There is little I can do to change many of the important things in my life (% Somewhat to strongly agree)	33.4 (109)	28.1 (33)	ns	45.2 (133)	71.4 (16)	.05
What happens to me in the future depends mostly on me. (% Somewhat to strongly disagree)	4.8 (109)	10.0 (33)	ns	7.9 (133)	7.4 (16)	ns
I have little control over the things that happen to me. (% Somewhat to strongly agree)	26.3 (109)	19.9 (33)	ns	30.5 (133)	40.2 (16)	ns

Table 16

Abusive Relationships in Women With and Without Histories of Child Sexual Abuse.

	Problem Drinkers			Nonproblem Drinkers		
	No Child Sexual Abuse (N=110)	Any Child Sexual Abuse (N=33)	p<	No Child Sexual Abuse (N=141)	Any Child Sexual Abuse (N=16)	p<
How often has your spouse/ partner done this in the past year? (% Once or more)						
Insulted or swore at you	50.0 (89)	78.3 (29)	.01	40.5 (110)	61.9 (12)	ns
Sulked or refused to talk about a problem	61.9 (89)	91.5 (29)	.01	64.5 (110)	50.7 (12)	ns
Stamped out (of the house, room or yard)	33.8 (89)	70.5 (29)	.001	19.8 (110)	17.9 (12)	ns
Did or said something to spite you	36.4 (89)	75.7 (29)	.001	32.2 (110)	57.8 (12)	.10
Threw something at you	6.1 (89)	8.8 (29)	ns	2.7 (110)	8.3 (12)	ns
Pushed, grabbed or shoved you	11.2 (89)	23.4 (29)	.10	8.3 (110)	8.3 (12)	ns
Slapped, kicked, bit, or hit you	4.1 (89)	11.4 (29)	ns	4.2 (110)	0.0 (12)	ns
Beat you up	1.3 (89)	5.9 (29)	ns	2.2 (110)	0.0 (12)	ns
How often did you play any of these parts in settling differences with your spouse/living partner/romantic partner over the past year? (% Once or more)						
Insulted or swore at spouse/partner	66.1 (89)	78.3 (29)	ns	31.7 (110)	66.0 (12)	.05
Sulked or refused to talk about a problem	57.0 (89)	83.7 (29)	.01	48.0 (110)	71.3 (12)	ns
Stamped out (of the house, room, or yard)	44.1 (89)	75.6 (29)	.01	17.4 (110)	39.9 (12)	.10
Did or said something to spite your spouse/ partner	49.8 (89)	71.4 (29)	.05	36.2 (110)	52.0 (12)	ns

Table 16

Abusive Relationships (cont.)

	Problem Drinkers			Nonproblem Drinkers		
	No Child Sexual Abuse (N=89)	Any Child Sexual Abuse (N=29)	p<	No Child Sexual Abuse (N=110)	Any Child Sexual Abuse (N=12)	p<
Threw something at your spouse/partner	5.8 (89)	34.0 (29)	.001	2.2 (110)	23.4 (12)	.01
Pushed, grabbed or shoved your spouse/ partner	4.1 (89)	42.5 (29)	.001	5.1 (110)	5.5 (12)	ns
Slapped, kicked, bit, or hit your spouse/ partner	4.9 (89)	14.1 (29)	ns	5.1 (110)	0.0 (12)	ns
Beat up your spouse/ partner	0.8 (89)	0.0 (29)	ns	2.2 (110)	0.0 (12)	ns

Note.--Respondents without a current romantic or sexual partner are excluded.

Table 17

Sexual Experience Among Women With and Without Histories of Child Sexual Abuse.

	Problem Drinkers			Nonproblem Drinkers		
	No Child Sexual Abuse (N=110)	Any Child Sexual Abuse (N=33)	p<	No Child Sexual Abuse (N=141)	Any Child Sexual Abuse (N=16)	p<
Sexual Dysfunction Index[a] (% One or more)	28.8 (102)	33.2 (33)	ns	26.9 (122)	49.9 (16)	.10
During your lifetime, sex has been (% Somewhat important to could do without)	53.6 (108)	37.9 (33)	ns	53.1 (128)	57.2 (16)	ns
I have never had any interest or enjoyment in sexual relations (% Yes)	3.6 (106)	0.0 (33)	ns	2.2 (129)	12.6 (16)	.10
In the past five years, sexual relations have sometimes been physically painful for me. (% True)[c]	25.8 (95)	31.2 (30)	ns	24.0 (112)	47.1 (14)	.10
In the past five years, sexual relations have sometimes been so physically painful for me that I could not have intercourse (% True)[c]	9.5 (95)	17.6 (30)	ns	7.0 (111)	4.6 (14)	ns
I have never come to a sexual climax (had an orgasm), during sexual activity with a partner. (% True)	8.4 (105)	0.0 (33)	ns	3.4 (125)	0.0 (16)	ns
In the past five years, when having sex with a partner, about how regularly do you come to a sexual climax? (% Half the time or less)[c]	34.2 (96)	25.8 (30)	ns	41.9 (113)	44.6 (14)	ns
Age of first sexual relations when you or your partner was old enough to come to a climax (% 17 or younger[b]	34.2 (107)	54.8 (33)	.05	22.0 (128)	56.3 (16)	.01
Was this when you were first married? (% No)	65.2 (100)	87.4 (33)	.05	44.2 (124)	81.0 (14)	.01

Table 17

Sexual Experience (cont.)

	Problem Drinkers			Nonproblem Drinkers		
	No Child Sexual Abuse (N=110)	Any Child Sexual Abuse (N=33)	p<	No Child Sexual Abuse (N=141)	Any Child Sexual Abuse (N=16)	p<
Current or most recent partner (% Female)	1.6 (107)	7.8 (33)	ns	3.7 (126)	0.0 (16)	ns
During last year of being sexual with current or most recent partner, how frequent was sexual activity? (% Less than once a week)	42.4 (106)	24.4 (33)	ns	35.8 (126)	44.7 (16)	ns
Is this more or less often than you would have preferred sex? (% Too little or too much)	33.8 (106)	43.8 (33)	ns	21.0 (127)	14.9 (16)	ns
How would you usually feel about sex with this partner? (% Neutral to prefer it did not happen)	15.4 (106)	12.0 (33)	ns	7.0 (127)	0.0 (16)	ns
(% Very good)	36.3 (106)	50.4 (33)	ns	44.1 (127)	90.5 (16)	.01
Over the last year how often have you had sexual activity with a partner? (% Occasionally to never)	47.7 (107)	73.5 (33)	.05	54.8 (127)	54.1 (16)	ns
In your lifetime has it been possible to enjoy being sexual by yourself? (% Sometimes to usually)	33.6 (108)	55.3 (33)	.05	18.6 (128)	18.9 (16)	ns
(% Never)	40.2 (108)	22.7 (33)	ns	56.5 (128)	25.7 (16)	.05
What was your age the first time you came to a sexual climax by yourself? (% 30 and younger)	46.7 (104)	71.0 (33)	.05	27.7 (124)	45.5 (15)	ns

Table 17

Sexual Experience (cont.)

	Problem Drinkers			Nonproblem Drinkers		
	No Child Sexual Abuse (N=110)	Any Child Sexual Abuse (N=33)	p<	No Child Sexual Abuse (N=141)	Any Child Sexual Abuse (N=16)	p<
If there were no question of right or wrong, would you say that sex with another woman might be enjoyable for you? (% Yes)	13.6 (107)	40.4 (33)	.001	5.7 (125)	12.6 (16)	ns
How often would you drink before or during sex with this partner? (% Usually or sometimes)	48.6 (107)	33.9 (33)	ns	18.4 (127)	18.4 (16)	ns
How often would your partner drink before or during sexual activity? (% Usually or sometimes	42.7 (107)	41.0 (33)	ns	28.4 (127)	25.3 (16)	ns
Partner's climax comes too soon (% Yes)	31.4 (102)	41.1 (33)	ns	34.5 (124)	26.5 (16)	ns
Partner's climax takes too long (% Yes)	10.4 (100)	16.3 (33)	ns	2.2 (121)	0.0 (15)	ns
I take too long to climax (% Yes)	43.1 (100)	44.5 (33)	ns	45.6 (125)	35.3 (15)	ns
Partner had sex with me when I really did not want it (% Yes)	43.5 (100)	53.2 (33)	ns	27.5 (125)	40.1 (15)	ns

[a]Sums (1) lack of sexual interest, (2) lack or low frequency of orgasm with a partner, and (3) vaginismus.

[b]Examination of reported ages indicate that repondents distinguished between sexual abuse experiences and "first sexual relations": None of the respondents with sexual abuse histories reorted the same age for first sexual abuse and first sexual relations.

[c]Excludes respondents with no sexual relations in past five years.

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