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Predicting Sexual Assertiveness in College-Age Women: A Model Building Approach

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PREDICTING SEXUAL ASSERTIVENESS IN COLLEGE-AGE WOMEN:
A MODEL BUILDING APPROACH

BY
DIANE MARIE GRIMLEY

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
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Abstract

A multidimensional approach to assertiveness in sexual behavior (for initiation, refusal, and birth control discussion/use) was used in order to examine the degree to which a woman is able to assert herself with a sexual partner. A sample of 234 college women was administered a large-scale questionnaire inquiring about sexual attitudes and behaviors, past and present relationships, substance use, and AIDS-related issues. In Study 1, a random subsample of 103 females drawn from the total sample of 234 was used in order to predict a woman's ability to assert herself sexually in a variety of sexual situations using multiple regression techniques. In Study 2, a cross-validation of the findings was examined using structural modeling methods. This second study consisted of the total sample ($N=234$), and incorporated the significant predictors of sexual assertiveness found in Study 1, mediated by self-efficacy for AIDS-prevention behaviors. In Study 3, the means of the variables were compared for invariance across two random subsamples of the original sample. The results indicate that for college women, past and present relationship issues are strongly associated with their level of assertion for sexual behavior. The results are discussed and future directions suggested.

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Predicting Sexual Assertiveness in College-age Women: A Model Building Approach

The purpose of the present study was to develop a model of women's sexual assertiveness based on the multidimensional approach suggested by Quina, Harlow, Gibson, & Morokoff (1990), in order to examine which factors best predict the degree to which a woman asserts herself with sexual partner(s) in a variety of sexual situations. In Study 1, a random subsample of 103 females drawn from the total sample of 234 women, was used in order to predict a woman's ability to assert herself based on psychosocial characteristics, sexual experience, substance use, childhood and adolescent sexual abuse, adult victimization experiences, self-efficacy for AIDS-prevention behaviors, and anticipation of a negative response from a partner for taking an assertive stance. In Study 2, a cross-validation of the findings was examined using the total sample of 234 women, incorporating the best predictors of sexual assertiveness found in Study 1, mediated by self-efficacy for AIDS-prevention behaviors. In Study 3, the means for the variables were compared across two random subsamples for comparability.

A review of the literature on premarital sexual behavior suggests that both men and women are engaging in coitus more frequently than in the past (Morrison, 1985; Robinson & Jedlicka, 1982), with the most rapid change occurring for women (Singh, 1980). Several studies suggest that as men and women's sexual attitudes and behaviors become more liberal, a single sexual standard -- a new sex role of egalitarianism -- will emerge

(e.g., Sirkin & Mosher, 1985). This single sexual standard implies that sexual behavior which is acceptable for men will also be acceptable for women and vice-versa. However, few real changes have occurred in men and women's sexual roles (Grauerholtz & Serpe, 1985). This apparent discrepancy seems to be the result of studies of sexual behavior which have based any evidence of a decline in the old double standard on actual rates of coitus (Clayton & Bokemier, 1980), while ignoring other important aspects of sexual interactions. For example, one dimension worthy of attention, particularly for a woman, is the degree to which she feels confident and, therefore, comfortable to assert herself within a variety of sexual encounters with a given partner.

One broad definition of assertiveness has been suggested by Wills, Baker, & Botvin (1989). These researchers take a multidimensional approach to assessing assertive behavior and define it as "a set of behavior patterns, each of which may be relevant for particular situations" (p.473). They note further that assertiveness may entail clusters of behaviors having different correlates and, possibly different antecedents (Wills et al., 1989).

When applied to the area of sexual behavior, a multidimensional approach of assertiveness suggests that particular aspects of assertion will be related to sexual behaviors in different ways. One conceptualization of women's sexual assertiveness has been formulated by Quina, Harlow, Gibson, & Morokoff (1990). According to these researchers, sexual assertiveness can also be defined as a set of behavioral patterns, each of which holds relevance for a particular sexual situation. Specifically, they define sexual assertiveness as the ability to initiate wanted sexual

experiences, to refuse unwanted or potentially exploitative experiences, and to discuss, as well as insist upon, birth control devices to protect oneself from unwanted pregnancies or exposure to sexual transmitted diseases (STD's), including AIDS (Quina et al., 1990).

Dynamics of the Sexual Interaction

Before discussing the three dimensions of women's sexual assertiveness (initiation, refusal, birth control discussion/use), it is important to note that traditional sexual interaction has involved a typical power exchange (Emerson, 1962), or a "conflict situation" (Hill & Scanzoni, 1982). According to Emerson (1962), power is manifested only "if 'A' makes some demand, and only if this demand runs counter to 'B's' desires" (pp.32-33). Therefore, power - whether openly displayed or more subtle, noncoercive or coercive, or even physically violent - is continually exercised within sexual interactions (Grauerholtz & Serpe, 1985). Traditionally, power or conflict situations within heterosexual relationships result from expectations regarding gender-specific roles in the area of sexual behavior (e.g., Grauerholtz & Serpe, 1985). In other words, when men are expected to engage in specific types of sexual behaviors (e.g., initiating sex), while women are expected to engage in others (e.g., refusing sex), power and/or conflict result.

Initiation

Safilios-Rothschild (1977) claims that women are becoming more aware of their own sexual needs and arousal levels, and, given the availability of birth control devices, are potentially free of the fear of unwanted pregnancies. Therefore, they are experiencing sexuality in more nontraditional ways. The rationale appears to be, if the men have had the

right to initiate wanted sexual experiences based on the premise that they have a greater sex drive than women (Bernard, 1966), then women's rights to initiate wanted sexual encounters may increase as individuals realize, and come to believe, that women have equal (if not greater) sexual potential (Masters & Johnson, 1966). As mentioned above, however, some studies suggest that actual role behavior has not significantly changed. For example, Grauerholtz & Serpe (1985) state that despite the similarity in men and women's sexual experience and activity, women generally do not feel as comfortable initiating sexual intercourse as men do. This is consistent with Laws and Schwartz's (1977) argument that "the right of the individual women to be selective and to respond to her own and not another's priorities has yet to be established" (p.62).

A number of factors have been considered when examining a woman's ability to initiate sex, or to practice more proactive behavior in sexual situations. One such factor is a woman's previous sexual experience. Laws and Schwartz (1977) predict that as women gain greater sexual experience (e.g., as their number of sexual partners increases and they feel more comfortable experiencing sexual pleasure), women will take more responsibility for their sexuality. This is consistent with other findings (e.g., Grauerholtz & Serpe, 1985), which also suggest that the more sexually liberal a woman is in terms of masturbation and instructing her sexual partner(s), the more comfortable she is initiating sexual encounters.

A woman's age has also been associated with the degree to which she is able to initiate sexual interaction. Grauerholtz and Serpe (1985) found that older women were less likely to exercise proactive behavior with a

sexual partner. One hypothesis offered was that they may be less affected by the more recent and rapid changes in sexual norms (Grauerholtz & Serpe, 1985). Since younger women are more likely to approve of premarital sex (Singh, 1980), it is expected that the college-aged sample in the present study may be more likely to initiate wanted sexual experiences.

Other important factors may also be associated with a woman's decision not to engage in more proactive behaviors. For example, many women perceive the price they pay for initiating sex with men as being too high. Peplau, Rubin and Hill (1977) found that women who take an active role in initiating sex were apt to receive negative attributions regarding their motives and personality. Furthermore, even among some married individuals, particularly working-class couples, wives fear that their husbands would disapprove if they took a more proactive sexual stance (Rubin, 1977).

Such potentially faulty perceptions may well reinforce women's beliefs that females should be passive sexually, when in reality sex role equality has been shown to be a positive experience for both men and women. Past research, for example, has shown that men desire more sexual participation from women both in terms of sexual initiation (Jessor, 1978), and sexual intercourse (Carlson, 1976; Hunt, 1976). As for initiation, Hite (1981) reports that "over and over again . . . men said that they wished the women would make the first advance" (p. 164). In another study focusing on men's reactions to women's sexually proactive behavior (Sirkin & Mosher, 1985), the emotions elicited by female initiation and female coital assertiveness, in comparison to the traditional male role norms of male initiation and coital control, were increased surprise and joy, and

decreased fear, shame, and anger. These data are consistent with Heiman's (1977) earlier psychophysiological examination of sexual arousal in both men and women in which she found women, and a trend for men, to be more sexually aroused by nontraditional sex roles in which women initiated and controlled the sexual activity.

Gender-role behavior and/or awareness of arousal levels may not be the only reasons why some women do or do not initiate sexual activities. Other, more dynamic and psychologically unhealthy reasons may also exist. For example, studies (e.g., Zierler, Feingold, Laufer, Velentgas, Kantrowitz-Gordon & Mayer, 1991) have shown that individuals who have experienced early childhood sexual abuse are more likely to report frequent sex with people they do not know, and are two times more likely to have multiple sexual partners on an average yearly basis as compared to individuals reporting no history of such abuse. In addition, Herman (1981) found that 35% of the incest victims in her sample reported promiscuous behavior, as well as a distinct sexual style used as a means of gaining affection and attention. These findings imply that women with a history of sexual abuse may initiate sex more, based on their faulty perceptions that it is the only way to relate to another as a means of meeting some felt need.

A related issue to sexual abuse in early childhood and adolescence is potential problems with substance abuse later in life. Women survivors of early traumatic sexual experiences report more frequent and intense alcohol consumption, as well as other drugs, than women who have never experienced sexual violation (Zierler et al., 1991). In another study focusing on substance use behavior of college students (Harlow, Quina, Morokoff, 1990), results indicate that individuals who are likely to engage

in alcohol or illicit drug use -- even if separate from sexual activity -- are more inclined to engage in high-risk sexual behaviors, including multiple sex partners. These findings suggest that alcohol and other drugs may serve as uninhibitors for women causing them to take a more proactive stance in sexual situations.

Based on the literature on women's sexual behavior, it would appear that the ability to initiate sexual activities holds both positive and negative consequences for women. Taking a proactive stance which reflects one's own felt level of sexual arousal can lead one to a sense of sexual autonomy, gratification of sexual needs, and overall healthy sexual functioning. On the other hand, a woman who feels she should not initiate when she is aroused may very well receive sexual overtures when she is not aroused. This repeated association of the woman's unaroused state with the man's sexual advances can interfere with her normal sexual functioning (Rook & Hammen, 1977; Shope, 1975).

Finally, one potentially dangerous consequence for women who demonstrate a high ability to initiate sex, has been linked with the possibility of contracting sexual transmitted diseases, including AIDS. For example, Harlow, Morokoff & Quina (1991) found with a sample of college-age women that the more assertive women are at initiating sex, the more likely they are to engage in high AIDS-risking behaviors (e.g., multiple partners and other unsafe sex practices). These findings suggest that the optimal situation is one in which a blending of the three stated components of sexual assertiveness (initiation, refusal, and birth control) exist.

Refusal

It has been stated that if traditionally men have taken an initiating role in sexual situations, women have taken to setting the limits (Peplau et al., 1977). Although some social scientists find this script acceptable, and even beneficial (see Peplau et al., 1977), others find the traditional sex role script, based on male dominance as a source of distress for women. One argument, suggested by Lips (1981), is that the role of limit-setter evokes less power than the roles of initiator, expert, and teacher and tends to keep women from taking direct control over their sexuality. Lips (1981) states further that the role places a restriction on females and "encourages them to think of themselves as victims and objects in the sexual encounter, rather than taking positive responsibility for sexuality on their own terms" (p. 129).

Another harmful result of traditional sex role scripts has been linked to a high incidence of unwanted intercourse for women (e.g., Lewin, 1979; 1985). For instance, in an article entitled, "Unwanted Intercourse: The Difficulty In Saying No," Lewin (1985) states that "unwanted intercourse occurs when a reluctant partner is induced to acquiesce against her(his) will by psychological pressure from a would-be lover, but without the use of threat or force" (p. 184). She states further that unwanted intercourse is not legally rape, but neither is it wanted or desired by one partner (Lewin, 1985). The reported rate of unwanted intercourse gained through psychological pressure (e.g., sexual coercion) by women is alarming. For example, in a study using a random probability sample of all the residential women students in the entire senior class (Lewin, 1979), 30% of the total sample reported experiencing unwanted intercourse. In a follow-up study

(Lewin, 1985), similar results were found with 22% of the women reporting at least one experience of unwanted intercourse; 88% had been pressed to comply with their partner but reported having refused.

Being sexually coerced or physically forced to engage in unwanted sexual activities has a distinct impact on the degree to which a woman is able to relate to future sex partners. For example, sexual victimization in adult women has been shown to lead to problems in current sexual relationships (Quina & Carlson, 1989), and can diminish some women's ability to resist unwanted sex effectively (Russell, 1984), leading to further sexual abuse. In a related issue, alcohol and other drug use have been offered as possible risk factors involved in adult victimization of women (Russell, 1984). For example, Russell (1984) suggests that the physiological effects of these substances possibly impair the decoding of specific assault cues or interfere directly with organized resistance behaviors. Another possible explanation is that substance use in this sexualized context may serve as a cue that sexually aggressive men perceive as a willingness to have sex, and which they use as a rationalization to ignore the woman's efforts to resist (Koss & Dinero, 1989). These findings suggest that prior victimization and substance use are related to a women's ability to refuse unwanted sex. It is likely that the more a woman has been sexually coerced or physically forced to have sex against her will or who has engaged in alcohol/drug use, the less likely she will be able to take an assertive stance by refusing to engage in unwanted sexual encounters.

Another relationship factor that may be related to the level to which a woman is able to refuse unwanted sex is how she feels her partner will

respond to such assertive behavior. Lewin (1985), for example, has documented that when college women were asked their feelings regarding refusing unwanted sex, more agreement was obtained that refusing would make the woman feel concerned that she had hurt the man's feelings than with any other specific reaction (e.g., ashamed, angry, etc.). These results are consistent with other studies (e.g., Harlow, Morokoff, Quina, Grimley, 1991), which have shown that a woman's perception that a partner may react negatively to her refusing specific sexual activities is related to the level to which she engages in high AIDS-risking behaviors. These findings suggest that the more a woman believes that her partner will respond negatively to her refusal of his sexual advances, the less likely she will be to resist.

It has been suggested that if a single sexual standard were sanctioned, both men and women would be expected to learn how to refuse unwanted sexual experiences. Lewin (1985) states that if this were the case, and sexual exploitation did occur, "the exploiter and the victim roles would not be confused with masculinity or femininity as they are today" (p. 212).

Birth Control Discussion and Use

One model of women's contraceptive use has been suggested based on the level of erotophobia-erotophilia they possess, in other words, their positive or negative emotional responses to sexual cues (Fisher, Byrne, & White, 1983). This model suggests that women who are highly erotophobic or high on sex guilt are more likely not to be sexually active; therefore, they are not likely to engage in sex, be it protected or unprotected sex (Fisher, Byrne, Edmunds, Miller, Kelley, & White, 1979; Fisher et al.,

1983; Gerrard, 1982, 1987). On the other hand, women who are highly erotophilic or low on sex guilt are more likely to be sexually active and to use contraceptives consistently (Fisher et al., 1983). The rationale is that these women tend to be comfortable enough with their sexuality to accept their intent to engage in sex, to acquire information about contraceptives, to freely discuss the use of birth control devices with their partners, to obtain or purchase contraceptives themselves, and to consistently use them (Fisher et al., 1983). Therefore, this type of woman is less likely to engage in unprotected sex. According to Muehlenhard and Hollabaugh (1988), women who find themselves somewhere in the middle of this continuum -- moderately erotophobic or moderate in sex guilt -- are the ones most likely to have unprotected sex. They state further, that if these women's attitudes toward sex are not negative enough to prevent them from engaging in sexual activity, but are negative enough to keep them from the consistent use of birth control devices, this will tend to lead them to sporadic and ineffective contraceptive use (Muehlenhard & Hollabaugh, 1988).

In addition to a woman's sexual attitude, the degree to which she feels confident using birth control devices may also have an influence on her ability to insist upon their use. For example, in a random sample of college women (Harlow et al., 1991), low self-efficacy for AIDS-prevention behaviors (e.g., condom use) was associated with a higher rate of unprotected and potentially dangerous sexual activities. These results are consistent with previous findings which suggest that despite the belief in the effectiveness of condoms at protecting oneself from unwanted pregnancies and controlling for STD's, many individuals report an

awkwardness regarding their use, and intend not to use them (Kegeles, Alder & Irwin, 1988).

Another important issue to consider when examining women's ability to discuss and use birth control is the role of sexual socialization. For example, a history of childhood or adolescent sexual abuse has been shown to be highly associated with teen pregnancy (Caldwell, 1988). These results have been supported and extended further in a recent study (Zierler et al., 1991), documenting that teen pregnancy is more prevalent among survivors of early sexual abuse than those reporting no sexual abuse. Furthermore, the link between childhood sexual abuse and sexual victimization later in life has been well documented (e.g., Runtz, 1987). It appears that a history of victimization may result in less insistence on birth control methods.

Finally, a woman's perceptions regarding how a partner will react to her discussing birth control devices or insisting upon their use have been shown to have a negative impact on some women's capabilities for meeting this need. For instance, in one study focusing on adolescents in inner city schools (Siegel, Lazarus, Krasnovsky, Durbin, Chesney, 1991), the researchers asked junior high school students to share their perceptions regarding the acceptability of condoms. Almost 60% of the students (females more than males, $p < .001$), agreed that "Sex partners often disagree about whether or not to use condoms" (Siegel et al., 1991, p.162), reflecting their perceived sense of conflict within intimate relationships regarding condom use. Studies using older students have yielded similar results. Harlow et al. (1991), for example, found that college-aged women who anticipate a negative response from their sexual partner(s) for

insisting upon, or even suggesting the use of condoms, were less likely to assert the use of birth control devices and were more likely to engage in unprotected sex, placing them at risk for AIDS. The implications of these findings are that the more a woman perceives that her sexual partner will react negatively to her discussing birth control devices, or insisting that they be used, the less likely she will be able to assert herself in these situations.

General Study Goals

The present investigation includes three studies that examined a model of factors associated with sexually assertive behaviors in women. Using multiple regression with a random subsample, the first study explored the best predictors of sexual assertiveness based on existing theory and empirical findings in the general areas of women's sexuality, AIDS-risking activities, and related behaviors. In a second study, cross-validation of Study 1 findings was examined using structural modeling methods on a larger sample of women. This second study incorporated the significant predictors found in Study 1, mediated by self-efficacy for AIDS-prevention, in order to examine its influence on the degree to which women are able to assert themselves sexually with a given partner. In the third study, the means for the variables were compared across two random subsamples for invariance.

Method

Participants

Data analyzed in these studies were collected in the spring of 1991 from undergraduate women (N = 234) enrolled in various psychology courses at the University of Rhode Island. A large survey of 661 items

tapped women's knowledge, attitudes, and behaviors involving past and present relationships, sexuality, AIDS-risking behaviors, substance use, and other pertinent issues. Nearly 85% of the surveys were completed in one of nine two-hour slots provided, with the remaining 15% completed at home and returned to the researcher at assigned drop-off locations.

Participants were given partial credit toward completion of their course requirements in psychology from their individual instructors.

Specific characteristics of the current sample are presented in Table 1. The median age was 19 with the majority of participants reporting to be in their freshman year (57%). Cultural diversity for this group was low with 94% of the women reporting being of White ethnicity. Whereas 11% of the women reported having no sexual partners within their lifetime, 44% reported having 2 - 5 sexual partners and 25% reported having 6 or more. The majority of the women (68%) perceived there to be equal power in sexual relations for themselves and their partner. Reported sexual abuse was low, but clearly present (4% had childhood sexual abuse, 8% had adolescent sexual abuse, and 14% had been raped).

Given the nature of the questionnaire, if sexual assertiveness has been achieved for women, one would expect to find this reflected in the behaviors of college women. If, on the other hand, the ability to sexually assert oneself is still not evident within this student population, it is quite likely that a significant change has not occurred for women within the general population.

Study 1

Sample 1 consisted of a random subsample (N=103) of the total sample of convenience (N=234), using a random number generator, or seed

number, with BMDP statistical software (Dixon, 1989). The goal was to achieve a subsample as close to $N=100$ as possible based on two rationales: (1) the need for a reasonable number of predictors (e.g., 20) that could serve as independent variables (IV's) in the initial exploratory study of women's sexual assertiveness; and (2) the requirement of having, at a bare minimum, at least 5 times more cases as compared to IV's when using standard multiple regression ($5 \times 20 = 100$), (Tabachnick & Fidell, 1989). Based on these considerations, a seed number of .53 was used allowing for 116 subjects, minus 13 subjects who did not engage in the target behavior (sexually active), leaving the final subsample at $N=103$, the closest approximation to the criterion achieved. Sexual activity was operationally defined in the present study as having at least one sexual partner in one's lifetime.

The purpose of having two subsamples was so that an exploratory investigation of the best predictors of sexual assertiveness could be analyzed first using the random subsample, and then confirmed on the second, or total sample of women. Although this approach is not, admittedly, the purest form of cross-validation, it was the best effort available that could generate some validity of the findings.

Preliminary Analyses

A principle-components analysis (PCA) of forty variables, selected based on their relevance to sexual assertiveness, was initially undertaken. The main goal of this analysis was to obtain a reduced set of variables in a few theoretically meaningful areas. A fairly stringent criteria of moderate factor loadings (.60 and above) was used as suggested in previous studies to insure the stability of the factor structure results (e.g., Guadagnoli &

Velicer, 1988). The number of factors was determined by a scree test based on the plotted eigenvalues for each component (Cattell, 1966), and the theoretical interpretation of the factors. A final solution of six factors, consisting of twenty variables explaining 70% of the variance, was retained and is presented in Table 2. These include the six major constructs of: (1) Psychological Characteristics; (2) High-Risk Activities; (3) Sexual Experience; (4) Victimization/Sexual Abuse; (5) Self-Efficacy for AIDS-Prevention Behaviors; and, (6) Anticipated Partner's Negative Reaction.

The correlations among the six major constructs are presented in Table 3. The correlations were relatively low between the factors with the exception of the relationship between Anticipated Partner's Negative Reaction and High-Risk Activities ($r=.248$).

Measures

The criterion measure of Sexual Assertiveness Skills was assessed using 18 Likert-type items from the Sexual Assertiveness Scale (Quina et al., 1990). Six items each tapped the three factors of refusal, initiation, and birth control assertiveness. The internal consistency reliability coefficients for the three subscales are $\alpha = .81, .80, .84$ respectively. Responses were made on a five-point scale (1=Never: 0% of the time, to 5=Always: 100% of the time). Some typical items are as follows: "If a partner wanted me to, I would perform oral sex on him even if I didn't want to" (low refusal); "If I wanted to have intercourse with my partner, I would initiate it" (high initiation); and, "If I wanted a partner to use a condom and he didn't want to, I would agree to have intercourse without the condom" (low birth control). The three factors of refusal, initiation, and birth control were used as three measured variables of sexual

assertiveness.

In Study 1, twenty predictors were used based on current findings in the literature and results from the initial PCA, discussed above. The first predictor factor assessed Psychosocial Characteristics using five variables.

1) Social Support: The 40-item Interpersonal Support Evaluation List (ISEL) designed by Cohen, Mermelstein, Karmarck, and Hoberman (1985) assessed social support for women. This scale has a Cronbach's alpha of .90.

2) Self-Esteem: the 25-item Coopersmith (1986) Self-Esteem Inventory rates respondents' level of self-esteem. This is a widely used measure with estimated internal consistency ranging from .80 to .92. Responses are made on a four-point scale ("very much like me" to "very different from me"), with higher scores indicating higher self-esteem.

3) Stress: Perceptions of life stressors were assessed using the 15-item Perceived Stress Scale developed by Cohen, Kamarck, and Mermelstein (1983). Internal consistency for this scale using coefficient alpha was $\alpha = .86$ with the current sample.

4) Purpose in Life: A slightly modified version (Harlow, Newcomb, & Bentler, 1987) of the Crumbaugh and Maholick (1964) Purpose in Life Test (PIL) was used. The PIL has shown test-retest reliability to be .79 (Reker & Cousins, 1979). The revised scale has an estimated internal consistency of $\alpha = .86$ (Harlow et al., 1987).

5) Demoralization: A 24-item scale measuring demoralization (Harlow, 1990) was used based on de Figueiredo and Frank (1982). Demoralization has been shown to occur when distress and feelings of

incompetence co-exist, leaving an individual feeling incapable to respond to change. The scale consists of two subscales with high internal consistency ($\alpha = .86$), and has shown good test-retest reliability ($\alpha = .77$) in previous studies.

The second predictor construct was High-Risk Activities measured by three predictors.

1) Frequency of Substance Use: Eight Likert-type items adapted from the Substance Use Frequency Scale (Harlow, 1991) assessed how often in the last six months an individual used a variety of chemical substances (e.g., marijuana, uppers, downers, etc.), without a doctor's orders. Internal consistency was high ($\alpha = .82$) with a present sample. Responses range from 1 (Never) to 5 (Once a day or more).

2) Intensity of Substance Use: In order to assess how often within the last six months an individual had overindulged in, or had got high on, any chemical substances, eight items, paralleling those used to assess frequency of substance use were used. The subscale has a Cronbach's alpha of .88, with responses measured on a five-point scale from 1 (Never) to 5 (Once a day or more).

3) High Risk Behavior: Three items from the High-Risk Behavior Scale (Harlow, 1991) were used in order to tap how many times a woman engaged in anal sex, injected drugs, or how many times her partner(s) injected drugs during the previous month. This subscale's internal consistency, using coefficient alpha, was $\alpha = .73$ with the current sample.

The third predictor component was Sexual Experience measured by three predictors. Initially, eighteen items were taken from the Sexual Experiences Scale (adapted from Derogatis and Melisaratos' (1979) Sexual

Functioning Inventory). In order to improve the sensitivity of the original scale, responses were adjusted to Likert-type frequencies, as compared to presence-absence of behavior, as suggested by previous research (Andersen & Broffitt, 1988). Two distinct factors were revealed in a preliminary analysis in this study explaining 63% of the variance. These are described below in the first two of three measures of sexual experience.

1) Preliminary Sexual Experience: Nine items assessed the frequency of such sexual activities as deep kissing and breast and genital petting/fondling. Responses ranged from 1 = "Never" to 5 = "11 or more times." Internal consistency using coefficient alpha was $\alpha = .95$ with this sample.

2) Creative Sexual Experience: Nine items tapped the frequency of women's more sexually liberal activities including masturbation, oral, anal, and vaginal intercourse with a variety of positions. Responses were coded on a five-point scale as "never", "1-2 times," "3-5 times," "6-10 times," or "11 or more times." Preliminary analyses found internal consistency to be at .86 using coefficient alpha.

3) The final measure of Sexual Experience consisted of two items from the Sexual Behavior Scale (Harlow, 1991). One item assesses the frequency of vaginal intercourse within the last month, whereas the second item taps the amount of oral sex women have engaged in within the past month. Internal consistency for the two-item scale was $\alpha = .79$.

Adult Victimization and Childhood Sexual Abuse made up the fourth predictor construct. The Sexual Victimization Scale (Koss & Oros, 1982) was analyzed with this sample using a standard principal-components

analysis which revealed two distinct factors, interpreted as psychological and physical victimization, explaining 57% of the variance. Despite the discrepancy with the original authors' number of factors (they found a single, unidimensional solution), the two-factor solution used here appears to reflect specific characteristics of the sample. Furthermore, it has been suggested that more research be conducted on the use of psychological pressure or coercion placed on individuals to engage in such sexual activities as unwanted intercourse in addition to physically forced sexual abuse (see Lewin, 1985). Therefore, two subscales, representing the two factors, were used: one measuring psychological victimization; and the other measuring sex gained through physical force.

1) Psychological Victimization: Five items tapped the extent to which a woman had been sexually coerced in previous adult relationships. An example from this subscale is: "Have you ever had sexual intercourse with a man even though you didn't really want to because he threatened to end your relationship otherwise?" Responses ranged from 1 = "definitely no" to 5 = "definitely yes." Using coefficient alpha, this subscale had an internal consistency of $\alpha = .95$.

2) Physical Victimization: Seven items assessed the degree to which a woman had experienced physically violent victimization in previous adult relationships. The response pattern was the same as for its counterpart, psychological victimization, with internal consistency for this subscale found to be $\alpha = .81$ with the current sample.

3) Early Sexual Abuse: Two items adapted from Bradley Hospital's ongoing research were used to assess any history of early sexual abuse. The first item asked women, "Were you ever forced to have sex with anyone

against your will during childhood?"; the second item assessed sexual abuse during adolescence. Responses were coded on a five-point scale from 1 = "No" to 5 = "Yes, more than 3 times." Internal consistency for these two items was $\alpha = .65$.

Anticipated Partner's Reaction to sexually assertive behavior was the fifth predictor component, measured by three variables. Responses ranged from 1 to 4 as, "agreement," "passive acceptance," "refusal," or "refusal with violence." These three variables have a Cronbach's alpha of .96 showing high internal consistency.

The sixth and final predictor construct was Self-Efficacy for AIDS-Prevention Behavior (adapted from Sorenson et al., 1988). Three items tapped both the level of belief and capability a woman has to perform certain behaviors necessary to prevent the transmission of AIDS. Each item is rated on a five-point scale from 1 = (disagree strongly) to 5 = (agree strongly). Internal consistency for this scale was $\alpha = .81$ in this sample.

Statistical Analyses

The purpose of Study 1 was to determine the strongest predictors of sexual assertiveness in a random subsample (N=103) of the total sample of college-aged women (N=234). Twenty variables, reflecting six constructs, were used as independent variables. Since Study 1 was model building in nature, standard multiple regression procedures were used on BMDP 1R statistical software (Dixon, 1989). This allowed for each independent variable to be evaluated in terms of what it added to prediction of the criterion, sexual assertiveness, and to allow an assessment of the overall predictability afforded by all the IV's (e.g., Tabachnick & Fidell, 1989). This multiple regression approach allowed for separate examination of the

outcome measures of initiation, refusal, and birth control assertiveness done first at the simplest of levels -- the individual variable level.

Results

The results from the three individual multiple regression analyses (one for each aspect of sexual assertiveness) with all twenty predictors are presented in Table 4.

The findings indicate that 34% of the variance in the INITIATION composite measure of sexual assertiveness was explained by a linear combination of the twenty predictors. Examination of the strongest standardized regression weights showed that high ability to initiate wanted sexual activities is associated with high creative sexual experience (.62), low anticipation of a partner's reacting negatively to such proactive behavior (-.50), and less belief that AIDS-prevention behaviors (e.g., safer sex) are possible (-.22).

The REFUSAL composite measure resulted in 35% explained variance with one significant standardized regression weight showing that for the college-age women in this sample, high ability to refuse unwanted or potentially dangerous sexual activities is associated with less previous psychological victimization (-.44).

Finally, the BIRTH CONTROL composite measure of sexual assertiveness resulted in 56% of the variance explained with the strongest beta weights showing that high ability to assert birth control discussions and use is associated with low substance use (-.47), high self-efficacy for limiting oneself to safer sex activities (.26), less childhood/adolescent sexual abuse (-.25), high preliminary or non-intercourse sexual

experience (.24), and high belief that safer sex is possible (.20).

Since the large prediction models focused on how well each of the twenty variables predicted the three aspects of sexual assertiveness, it seemed equally important at this stage of model development, to examine separate multiple regressions for each of the six constructs and the three sexual assertiveness dimensions, in an attempt to understand better the nature of the model at a construct level. Findings from the eighteen separate regressions on the predictor constructs are presented in Table 5.

The results from the separate multiple regressions on the six constructs suggest that high ability to initiate sex in college women is associated with high creative sexual experience (.50). The ability to refuse unwanted or potentially dangerous sexual activities is associated with less demoralization (-.48) and less psychological victimization (-.43). Finally, high ability for birth control assertiveness is associated with less demoralization (-.37), less psychological victimization (-.44), less creative sexual experience (-.37), less substance use (-.64), and high self-efficacy for AIDS-prevention behaviors (average of .26).

Study 2

Participants

The sample for Study 2 consisted of the total sample, with women not sexually active deleted, leaving the final sample at N=209. This larger sample size was needed in order to use structural modeling methods with some of the best predictors of sexual assertiveness found in Study 1.

Measures

Based on their significance in Study 1, and the need for multiple measures per construct to control for measurement error (Bentler, 1978)

the following constructs, each measured with two or more indicators, were used in Study 2: 1) Victimization -- measured by Psychological Victimization and Physical Victimization; 2) Sexual Experience -- measured by Preliminary and Creative Sexual Experiences; 3) Anticipated Partner's Negative Reaction -- items one and three: asking a partner to use a condom (item one) and refusing to have sex with a partner unless he uses a condom (item three); and 4) Substance Use -- measured by Frequency and Intensity of Substance Use. These four constructs all served as independent variables in the structural model. However, based on its high showing in the preliminary multiple regression and predictions from social learning theory (e.g., Bandura, 1977), Self-Efficacy for AIDS-Prevention Behaviors was posited as a mediating construct and was measured by the Belief in, and the Ability to perform, AIDS-prevention behaviors.

Each of the latent dependent constructs of sexual assertiveness (initiation, refusal, birth control) were measured by two indicators: the first was the average of the three positively worded items, indicating Positive Sexual Assertiveness; the second was the average of the three negatively worded items, labelled Negative Sexual Assertiveness.

Statistical Procedures

Structural modeling methods (Bentler, 1980) were selected to confirm the findings in Study 1 since they combine the best of multiple regression and factor analysis. Whereas multiple regression may yield biased regressions when measurement error is present in predictor variables, and factor analysis does not allow for predictions among the factors (Bentler, 1978), structural modeling avoids these problems. Structural modeling is also useful and appropriate when examining correlational data by allowing

for the determination of both direct and indirect relations. Therefore, it was possible to examine whether victimization/abuse, sexual experience, anticipated partner's negative reaction, and substance use are directly related to women's ability to sexually assert themselves, or whether the associations were mediated indirectly by self-efficacy for AIDS-prevention behaviors.

The computer program EQS (Bentler, 1989) was used to analyze the structural model. Since no one single index of fit has been fully accepted (Bentler, 1990; Bentler & Bonett, 1980; Bollen, 1989), several indices of fit were utilized to determine the overall appropriateness of the model. They were as follows: (1) the conventional chi-square test; (2) the root mean square residual (RMR) (Joreskog & Sorbom, 1986) with values closer to 0 indicating small differences between the model and the data; (3) Bentler and Bonett (1980) normed fit index (NFI) which has values ranging from 0 to 1, with those closer to 1 indicating better fit; (4) Tucker-Lewis Index (TLI) (Tucker & Lewis, 1973), which is quite similar to the NFI, but is less dependent on sample size; (5) Comparative Fit Index (CFI) (Bentler, 1990), which also has values ranging from 0 to 1; and (6) Parsimonious versions (Mulaik, James, Van Alstyne, Bennett, Lind, & Stilwell, 1989) of the latter three indices (PNFI, PTLI, PCFI) correcting for overparameterization of the model.

Research Hypotheses

A theoretical model of the predicted associations among the eight major constructs is presented in Figure 1.

The constructs of Victimization (VICTM), Sexual Experience (SEXEP), Anticipated Partner's Negative Reaction (APRTNR), and

Substance Use (SUBUSE) were situated as independent constructs. It was expected that VICTM would have a direct negative relationship with the mediating construct of Self-Efficacy for AIDS-Prevention Behaviors (SELF-EFF), as well as with the dependent constructs of Refusal (REFUSE) and Birth Control (BC) assertiveness. It was also expected to have a direct positive association with the dependent measure of Initiation (INITIATE).

SEXEP was expected to have a direct positive relationship with the intervening construct of SELF-EFF, as well as the three dependent constructs.

On the other hand, APRTNR was hypothesized to have a direct negative association with the mediating variable of SELF-EFF, as well as the three dependent measures of REFUSE, BC, INITIATE.

The last independent construct, SUBUSE, was expected to have a direct negative relationship with the mediator of SELF-EFF, and two of the dependent measures, REFUSE, BC. In contrast, SUBUSE was expected to relate positively with the dependent construct of sexual INITIATE.

Finally, the mediator of SELF-EFF was hypothesized to have direct positive relationships with REFUSE and BC, but a direct negative relationship with sexual INITIATE.

Results

Of the 209 cases used in this analysis, six cases with extreme violations of multivariate normality were deleted, leaving the final sample at N=203. The conventional maximum likelihood (ML) estimator was used to analyze the model although some skewness and kurtosis was expected to remain for certain variables (e.g., abuse, substance use). The choice of the ML estimator was based on several studies which have shown ML to be

fairly robust against minor violations of nonnormality (Boomsma, 1983; Harlow, 1986; Huba & Harlow, 1987).

Given the complexity of the model (e.g., large number of parameter estimates as compared to subjects), and the similarity of the factor loadings for each variable on its corresponding component found in the PCA mentioned above (e.g., average difference = .0375), it was decided to constrain the factor loadings of the measured independent variables to be equal. This procedure eliminated iteration problems which led to nonconvergence of the proposed model in preliminary runs. Also, the results of the initial run of the model indicted that the measured variable of sexual abuse had a nonsignificant loading. With this variable dropped from the model, the two measured variables per construct, constrained to be equal, resulted in a clean and proper solution.

Overall Model Fit

The maximum likelihood chi-square value indicated that the overall model fit was $\chi^2(83) = 172.581$, $p < .001$. Other fit indices (with Parsimonious fit indices in parentheses) were: The Bentler-Bonett Normed Fit Index = .87 (PNFI = .60); the Tucker-Lewis Non-Normed Fit Index = .89 (PNNFI = .62); the Comparative Fit Index = .92 (PCFI = .64), all indicating relatively good model fit. The Root Mean Square Residual was low (.04) revealing that the difference between the model and the data was small.

Confirmatory Factor Analysis

The standardized confirmatory factor loadings and residuals for each of the 16 variables are given in Table 6.

All factor loadings were significant at $p < .01$, or better, indicating that the constructs were assessed adequately by the measured variables.

All but four residuals (for preliminary sexual experience, substance use intensity, positive sexual initiation, and positive birth control assertiveness) were significant, indicating that the specific or unique portions of the remaining 12 measured variables were nonzero.

Correlations among the Independent Constructs

Three significant correlations among the independent constructs were found at the .05 level. The results were as follows: VICTM with APRTRNR (-.22); SUBUSE with SEXEP (-.17); and, SUBUSE with APRTRNR (.18). No significant relationships were revealed between SEXEP and VICTM (-.06), SEXEP and APRTRNR (-.02), or VICTM and SUBUSE (-.02).

The final structural model for the eight major constructs with standardized path coefficients given for significant paths is presented in Figure 2. All non-significant paths and correlations among the independent constructs are omitted for ease of presentation.

Structural Coefficients

The only significant path to the construct of Self-Efficacy for AIDS-Prevention Behaviors was from Victimization ($\beta = -.36$, $t = -3.05$), negating the significance of this variable as an important mediator between the other independent constructs (sexual experience, anticipated partner's negative reaction, and substance use) and sexual assertiveness. Significant paths were found, however, between the mediator and the ability to Refuse unwanted sex ($\beta = .36$, $t = 3.26$) and the ability to insist upon Birth Control Discussion and Use ($\beta = .77$, $t = 6.15$).

Significant direct paths to the dependent construct of Refusal were found for two of the independent measures: from Victimization ($\beta = -.27$,

$t = -2.27$) and from Anticipated Partner's Negative Reaction ($\beta = -.31$, $t = -3.22$), but no significant associations between Sexual Experience ($\beta = .11$, $t = 1.16$) or Substance Use ($\beta = .07$, $t = .86$) with Refusal were revealed. The only independent measure with a direct significant path to the criterion of Birth Control assertiveness was Anticipated Partner's Negative Reaction ($\beta = -.31$, -3.96). Finally, for sexual Initiation, significant positive associations were found for the independent constructs of Sexual Experience ($\beta = .31$, $t = 3.88$), and Substance Use ($\beta = .17$, $t = 2.33$). The predictor constructs of Victimization and Anticipated Partner's Negative Reaction showed no significant relationship with Initiation.

Prediction Error / Proportion of Variance

The proportion of variance explained for a dependent construct can be obtained by subtracting the prediction error found for that factor from 1 (Hayduk, 1987). Using the ML results for the Refusal construct, $1 - .61 = .39$, indicating that 39% of the explained variance was found for this dimension of sexual assertiveness with the proposed model. Using the formula from above, 64% of the variance was explained for Birth Control assertiveness and 12% of the variance was accounted for the aspect of sexual Initiation assertiveness. Fourteen percent of the variance in the mediator construct of Self-Efficacy for AIDS-Prevention Behaviors was explained by the four independent variable constructs. Given that the model was an initial attempt at predicting the multidimensional aspects of sexual assertiveness, these results are encouraging.

Study 3

In the final analysis, a comparison of the means for variables from all six independent constructs used in the first two studies (Sexual

Experience, High-Risk/Substance Use Behaviors, Anticipated Partner's Negative Reaction, Self-efficacy for AIDS-Prevention Behaviors, and Victimization/Early Childhood Sexual Abuse), and the dependent constructs of Refusal, Birth Control and Initiation, were compared across two random subsamples for invariance. The purpose of the analysis was to assess whether the two subsamples were comparable for these measures. If nonsignificant differences were found between the means of the two subsamples, greater confidence could be placed in the consistency of the overall findings.

Participants

Data from the total sample (N=234), minus those cases that did not engage in the target behavior of sexual activity (N=25), were randomly split into two subsamples. Subsample 1 consisted of 104 cases, whereas subsample 2 consisted of the remaining cases (N=105).

Statistical Procedures

Descriptive statistics (e.g., ranges, means, standard deviations), were conducted on all of the variables. A comparison of the means was investigated using multivariate analysis of variance (MANOVA) with BMDP statistical software (1989).

Results

The ranges, means and the standard deviations for all variables are presented in Table 7.

The average of the two subsamples' means indicated that this college sample of women possessed high levels of social support, self-esteem and purpose in life, with low degrees of demoralization and only moderate levels of stress. Perceived self-efficacy for AIDS-prevention behaviors was high

suggesting that these college-aged women not only believed in safer-sex behaviors, but also seemed confident when engaging in them. The mean scores also reflected a high frequency for non-intercourse or preliminary sexual experiences (e.g., 11 or more times in one's lifetime), relatively low creative or orgasm-related sexual behaviors (e.g., 2 - 5 times in one's lifetime) and low substance use. These scores suggested a fairly conservative nature overall for this female sample. Furthermore, the quality of these women's past and present relationships appeared good with low levels of early childhood/adolescent sexual abuse and low adult physical victimization experienced. More moderate degrees of sexual coercion or psychological victimization were reported, however. The anticipation of a partner's negative reaction to sexually assertive behavior was low indicating that the women in the sample expected high agreement from a partner regarding their suggestion of condom use. Finally, the average means for the three measures of sexual assertiveness indicate that, overall, these women had lower ability to initiate wanted sexual activities (e.g., about 50% of the time), as compared to their perceived capabilities to refuse sex and/or insist upon birth control devices (e.g., about 75% of the time).

The F obtained with the MANOVA was nonsignificant, $F(23,185) = 1.24$, indicating that no significant differences were found between the means of the variables for the two subsamples. This suggests that the comparability of the findings between the confirmatory structural modeling and the regression analyses can be interpreted with some confidence, despite the fact that the procedures did not involve the purest form of cross-validation (e.g., two independent samples).

Discussion

These three studies were an initial attempt at supporting a multidimensional formulation of assertiveness and women's sexual behaviors. Some consistent support was found for a number of the findings across the two sets of analyses involving multiple regression and structural modeling. For instance, the negative association between victimization and the ability to refuse unwanted sexual experiences was supported. This is consistent with previous research which has documented that victimization in intimate relationships is linked to a "learned helplessness" for women (Walker, 1986), leaving them unable to make specific lifestyle changes necessary for future protection (Russell, 1983; Wyatt, Notgrass & Newcomb, 1990). These findings suggest that women who have experienced sexually coercive or physically violent victimization may find themselves unable to resist unwanted, or potentially dangerous, sexual experiences.

Bearing the above implication in mind, it seems worthy to note that with the present sample of women, 6% reported that they had "definitely" been raped, and an additional 8% said that they had "probably" been raped (see Table 1). Since some women minimize, or even forget, their experiences of sexual victimization over time (Gavey, 1991), it seems reasonable to assume that women who made the claim that they were probably raped were, indeed, sexually violated. This would suggest then, that at least 14% of the present sample has actually experienced rape. This figure is consistent with the percentage found by Koss, Gidycz, & Wisniewski (1987), where it was documented that 15% of the women in a national sample of college students had been raped. Cross-cultural

support also exists with the findings of Gavey (1991), which assert that 14% of a New Zealand college sample reported at least one experience of being raped.

Furthermore, Koss and Oros's (1982) Victimization Scale has been shown not to register some of the more subtle forms of sexual coercion (Gavey, 1990), so the percentages for psychological victimization found here may well underestimate the actual magnitude of the problem.

The hypothesis that a direct negative association with victimization and self-efficacy for AIDS-prevention behaviors would be found was supported. This was expected based on the literature stating that women who have been victimized feel powerless and less in control within intimate relationships (e.g., Russell, 1983). However, no significant paths were found from the victimization factor to either the birth control or initiation constructs. This was probably due, in part, to the use of two broad screening questions used to assess early childhood and adolescent sexual abuse, which were dropped from the construct of victimization due to poor loadings and insignificant paths. The type of item used (e.g., "Were you ever forced to have intercourse against your will . . .?"), appears not to be a sensitive enough measure of the problem. A more appropriate measure would include items which not only assesses intercourse experiences, but also exhibition and fondling experiences, since they are the most prevalent forms of child sexual abuse (Finkelhor, 1979). Previous research has suggested the need for a better understanding of the impact of childhood sexual abuse on such issues as teen-age pregnancies (Caldwell, 1988; Zierler et al., 1991), sexual socialization (Koss & Dinero, 1989), and on the ability to avoid high-risk sex practices (Zierler et al., 1991). Current

findings reaffirm the necessity of its inclusion in any model assessing women's sexual assertiveness.

On the other hand, the hypothesized positive relationship between women's initiation assertiveness and sexual experience ($\beta = .31, p < .001$), received strong support. This finding is consistent with previous research which has suggested that as women gain more sexual experience, they will take more control over their own sexuality (Laws & Schwartz, 1977), and will gain more experience at initiating sexual activities (Grauerholtz & Serpe, 1985). However, sexual experience was not related to self-efficacy for AIDS-prevention behaviors or birth control and refusal assertiveness. The lack of significance for the refusal aspect of assertiveness is consistent with the findings of Grauerholtz and Serpe (1985). In fact, the only positive relationship for the ability to refuse sex found by Grauerholtz and Serpe (1985) was the level of sexual liberalism held by women (e.g., ability to instruct a sexual partner, level of comfort with masturbation, ability to discuss sex with a partner). Although one item assessing masturbation was included in the present model, it was used as a measure of sexual experience and no measure was used that assessed relating to a partner about sexual issues or instructing a partner (e.g., what gives a woman sexual pleasure or displeasure).

These findings suggest at least two important considerations for future research. First, since sexual experience appears to have no direct relationship with a woman's ability to refuse sex, perhaps the relationship is indirect, through sexual liberalism. In other words, women who are sexually active and feel more comfortable discussing sexual issues with a partner may also feel confident refusing unwanted sex. Therefore, future

research might include a measure of sexual liberalism as an intervening construct for sexual assertiveness. Secondly, another hypothesis is that the measure of sexual assertiveness, as it stands now, may be incomplete. Perhaps such skills as instructing a partner, as well as inquiring about his sexual history or serostatus should be added to more fully describe the criterion of sexual assertiveness. In any case, these are important considerations related to assertiveness and women's sexual behavior, particularly given the current rate of AIDS cases for women, and should be considered in a model for sexual assertive behavior.

No association was found between anticipated partner's negative reaction and either self-efficacy for AIDS-prevention behavior or initiation. However, the expected direct negative relationships between the two constructs of refusal and birth control with anticipated partner's negative reaction were found. These findings suggest that the more a woman anticipates a negative response from a partner, the less likely she will be to refuse unwanted sex or insist upon birth control use. It is worth mentioning that these results are from the same data set where 68% of the women claimed they had equal say, or perceived power, in sexual relations (see Table 1). An additional 8% said they had somewhat more say than their partner, and another 1% stated they felt they had much more power in their sexual relationships. Therefore, 77% of the present sample feel they have equal or more say in their sexual relations, but also claim to refuse unwanted sex and/or to insist upon birth control only if they think their partner will not become upset by it. Contradictory as this appears, these findings are consistent with previous research which has documented that the main concern for women was whether or not they would hurt their

partner's feelings if they refused his sexual advances (Lewin, 1985). This situation has been explained by some, mostly feminists, as the "stroking function." For instance, women have been brought up to believe that they should put their men's needs before their own (e.g., Lewin, 1985). In addition, Miller (1966) claims that "women often spend a great deal more time talking about giving than men do . . . By contrast, the question of whether he is . . . giving enough does not enter into a man's self-image. Few men feel that giving is a primary issue in their struggles for identity" (pp. 49-50). Although this may not be the only explanation, it does offer one possible interpretation of the situation.

The hypothesis that substance use would have a direct positive relationship with a woman's ability to initiate sex was supported. This is consistent with other studies (e.g., Harlow et al., 1990), which have shown that the more an individual uses chemical substances, the more likely he or she is to engage in high-risk activities such as multiple sex partners and frequent intercourse experiences. No associations were found between substance use and either self-efficacy for AIDS-prevention behaviors, refusal, or birth control. This seems in conflict with previous research (Harlow et al., 1990; Russell, 1984). However, it has been suggested that with studies utilizing retrospective designs, measures assessing current drinking or drug use levels should be included in order to examine if any changes in a woman's ability to resist unwanted sex are directly reflected (Koss & Dinero, 1989). The same rationale can be applied to current substance use and levels of self-efficacy for AIDS-prevention behaviors and the ability to insist upon birth control devices.

Finally, the hypotheses that direct positive relationships exist between the mediator of self-efficacy for AIDS-prevention behaviors and the dependent constructs of refusal and birth control were verified. These findings help to support and extend previous research that has documented that women who have a high degree of self-efficacy for safer sex practices are less likely to engage in high-risk sexual behaviors (Harlow et al., 1991). No relationship was found between self-efficacy and initiation assertiveness. This fails to confirm recent studies (e.g., Harlow et al., 1991) which have demonstrated that the more a woman feels confident to perform AIDS-prevention behaviors the less likely she is to engage in frequent sexual activities placing her at risk of contracting AIDS.

In summary, these results suggest that women's sexual assertiveness is a highly complex and multifaceted phenomenon. Some overlap seems to exist between the dimensions of refusal and birth control assertiveness. However, the direct relationship found between the independent variable of victimization and the dependent measure of refusal, which was not evident with birth control, indicates that some unique properties exist for the construct of refusal, supporting the multidimensional formulation of sexual assertiveness.

Several limitations were present in this research investigation. First, the cross-validation study did not involve completely independent samples to confirm the findings from Study 1 in Study 2. It would have been purer, methodologically, if two separate samples could have been obtained. Second, the constraints placed on the factor loadings of the independent measures, although methodologically justified, should be released using a sample size large enough to accommodate the number of

parameter estimates that would be involved (e.g., twice the size of the present sample). This removal of constraints would not only be better from a methodological standpoint, but would also improve the overall fit of the proposed model. Third, the role of self-efficacy for AIDs-prevention behavior as an intervening variable for sexual assertiveness does not have strong enough support for two of the three aspects of sexual assertiveness (e.g., refusal and initiation). In order for a construct to be successful at mediation one would find few or no direct paths connecting IV's with DV's in the analysis (Biddle & Marlin, 1987). Future studies should consider eliminating self-efficacy as a mediator since it appears empirically to be just another predictor of sexual assertiveness. As mentioned above, a construct of sexual liberalism may be a better choice. Another possible intervening variable has been suggested by Grauerholtz and Serpe (1985) who found awareness of sexual discrimination (e.g., discrimination in institutions, romantic relationships, and in sexual activity) to play a significant role in mediation of sexual refusal and initiation.

The implication of the current findings are at least threefold for clinicians and other researchers. First, it is necessary to realize that rape and sexual coercion are prevalent in heterosexual relationships which may be a hidden source of psychic distress for some women (Gavey, 1991), and may be a key factor for some individuals presenting with sexual dysfunction problems. Second, primary prevention of teen pregnancies, AIDS, and other STD's, geared towards education alone, are not enough. Efforts must be placed in the direction of exploring with women the quality of their past intimate relationships and the effect they have on current sexual behavior. Third, the results suggest that the quest for sexual

egalitarianism has not been reached, despite the increase in women's sexual activity.

It is frightening to realize that we are in the throes of an AIDS epidemic and college women are still not consistently insisting upon the use of barrier protection with a given partner, or flatly refusing to engage in unwanted or potentially unsafe sexual activities. Furthermore, given the fact that these college women would be considered a high-functioning group of individuals, it is reasonable to expect that this situation is even more urgent in the general population of women.

Table 1

Description of Sample

Characteristics	
N =	234
Age (Mean)	21.7
(Median)	19
Ethnicity	
White	94%
African American	3%
Asian	1%
Hispanic	<1%
Other	2%
Year in School	
Senior	10%
Junior	12%
Sophomore	20%
Freshman	57%
Religious Affiliation	
Catholic	60%
Protestant	18%
Jewish	9%
Eastern Faith	1%
Other	12%
Number of Sex Partners in Lifetime	
None	11%
1	21%
2-5	44%
6-10	17%
11 or more	8%
Discusses Sex with a Parent	
Not at all	50%
A little	26%
Somewhat	11%
Quite a lot	9%
Almost all	3%
Perceived Power in Sexual Relations	
Partner much more	4%
Partner somewhat more	19%

Table 1. Continued.

Characteristics	
Partner and I about equally	68%
I somewhat more	8%
I much more	1%
History of Childhood Sexual Abuse	
No	96%
Yes, 1 time	2%
Yes, 2 times	<1%
Yes, more than 3 times	2%
History of Adolescent Sexual Abuse	
No	92%
Yes, 1 time	7%
Yes, 2 times	<1%
Yes, more than 3 times	<1%
Unwanted Sexual Intercourse (Psychologically Forced)	
Definitely yes	12%
Probably yes	27%
Unwanted Sexual Intercourse (Through Physical Force)	
Definitely yes	6%
Probably yes	5%
Raped	
Definitely yes	6%
Probably	8%

Table 2

Factor Loading Pattern - Twenty Predictor Variables

Predictor Variables	F1	F2	F3	F4	F5	F6
Self-esteem	.90					
Purpose in life	.86					
Demoralization	.85					
Stress	.83					
Social support	.73					
Antic. partner's neg. reaction 1		.90				
Antic. partner's neg. reaction 2		.88				
Antic. partner's neg. reaction 3		.82				
Substance use intensity			.96			
Substance use frequency			.94			
High-risk behaviors			.65			
Self-efficacy 1				.81		
Self-efficacy 2				.81		
Self-efficacy 3				.80		
Creative sexual experience					.83	
Preliminary sexual experience					.79	
Vaginal/oral sex					.67	
Psychological victimization						.79
Physical victimization						.77
Sexual abuse						.64

Note:

F1 = Psychosocial Characteristics

F2 = Anticipated Partner's Negative Reaction

F3 = High-Risk Activities

F4 = Self-Efficacy for AIDS-Prevention Behaviors

F5 = Sexual Experience

F6 = Victimization/Sexual Abuse

Table 3

Correlations Among Six Major Factors

	F1	F2	F3	F4	F5	F6
Factor 1	1.00					
Factor 2	-.11	1.00				
Factor 3	.03	.25	1.00			
Factor 4	-.09	.10	.00	1.00		
Factor 5	.07	.10	-.05	.07	1.00	
Factor 6	-.13	.15	.01	.11	.06	1.00

Note:

Factor 1 = Psychosocial Characteristics

Factor 2 = Anticipated Partner's Negative Reaction

Factor 3 = High-Risk Activities

Factor 4 = Self-Efficacy for AIDS-Prevention Behaviors

Factor 5 = Sexual Experience

Factor 6 = Victimization/Sexual Abuse

Table 4

Multiple Regression Results from Large Prediction Studies

Criterion Best Predictors	β	t-test	sig.
Initiation			
R=.59, R ² =.34. F(20,82) = 2.14, **			
Creative Sex. Experience	.62	4.49	***
Anticipation of a Partner's			
Negative Reaction	-.50	-2.24	*
Belief in AIDS-Prevention	-.22	-2.09	*
Refusal			
R=.59, R ² =.35, F(20,82) = 2.17, **			
Psychological Victimization	-.44	-3.53	***
Birth Control			
R=.71, R ² =.56, F(20,82) = 5.12, ***			
Ability for AIDS-Prevention	.26	2.90	***
Sexual Abuse	-.25	-2.87	**
Preliminary Sex, Experience	.24	2.35	*
Belief in AIDS-Prevention	.20	2.16	*
Frequency of Substance Use	-.47	-2.14	*

Note: * = $p < .05$; ** = $p < .01$; *** = $p < .001$

Table 5

Results from Separate Multiple Regression on 6 ConstructsConstructs and Omnibus ResultsCriterion

Best Predictors	β	t-test	sig.
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Psychosocial CharacteristicsInitiation

$R=.17$, $R^2=.03$, $F(5,111) = .64$, NS
(No significant predictors)

Refusal

$R=.35$, $R^2=.12$, $F(5,111) = 3.01$, **
Demoralization

- .48	-3.50	***
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Birth Control

$R=.31$, $R^2=.10$, $F(5,111) = 2.36$, **
Demoralization

- .37	-2.67	**
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Victimization/AbuseInitiation

$R=.14$, $R^2=.02$, $F(3,113) = .78$, NS
(No significant predictors)

Refusal

$R=.43$, $R^2=.19$, $F(3,113) = 8.69$, ***
Psych. Victimization

- .43	-4.18	***
-------	-------	-----

Birth Control

$R=.39$, $R^2=.15$, $F(3,113) = 6.85$, ***
Psych. Victimization

- .44	-4.20	***
-------	-------	-----

Sexual ExperienceInitiation

$R=.45$, $R^2=.20$, $F(3,113) = 9.31$, ***
Creative Sexual Experience

.50	4.43	***
-----	------	-----

Refusal

$R=.14$, $R^2=.02$, $F(3,113) = .73$, NS
(No significant predictors)

Table 5. Continued.

Constructs and Omnibus Results			
Criterion			
Best Predictors	β	t-test	sig.
<u>Birth Control</u>			
R=.35, $R^2=.13$, $F(3,113) = 5.39$, ***			
Creative Sexual Experience	-.37	-3.15	***
<u>High-Risk Behaviors</u>			
<u>Initiation</u>			
R=.08, $R^2=.01$, $F(3,113) = .23$, NS			
(No significant predictors)			
<u>Refusal</u>			
R=.14, $R^2=.02$, $F(3,113) = .73$, NS			
(No significant predictors)			
<u>Birth Control</u>			
R=.28, $R^2=.08$, $F(3,113) = 3.10$, ***			
Substance Use (Frequency)	-.64	-2.64	**
<u>Self-Efficacy for AIDS-Prevention</u>			
<u>Initiation</u>			
R=.18, $R^2=.03$, $F(3,113) = 1.23$, NS			
(No significant predictors)			
<u>Refusal</u>			
R=.21, $R^2=.04$, $F(3,113) = .80$, NS			
(No significant predictors)			
<u>Birth Control</u>			
R=.60, $R^2=.36$, $F(3,113) = 20.86$, ***			
Belief in AIDS-Prevention	.29	3.40	***
Ability for AIDS-Prevention	.23	2.39	*

Antic. Partner's Negative Reaction

Initiation

$R = .15$, $R^2 = .02$, $F(3, 99) = .80$, NS
(No significant predictors)

Refusal

$R = .25$, $R^2 = .06$, $F(3, 99) = 2.15$, NS
(No significant predictors)

Birth Control

$R = .33$, $R^2 = .11$, $F(3, 99) = 3.93$, ***
(No significant predictors)

Note: * = $p < .05$; ** = $p < .01$; *** = $p < .001$

Table 6

Confirmatory Factor Loadings and Residuals Based on ML Estimation

Factor Variables	Loading	Residuals
I. Victimization		
1. Psychological	.68***	.77***
2. Physical	.66***	.75***
II. Sexual Experience		
3. Preliminary	.90***	.44
4. Creative	.53***	.85***
III. Antic. Partner's Negative Reaction		
5. APRTNR 1	.87***	.50***
6. APRTNR 2	.89***	.46***
IV. Substance Use		
7. Frequency	.92***	.40***
8. Intensity	.97***	.23
V. Self-Efficacy For Aids-Prevention		
9. EFFIC 1	.71***	.71***
10. EFFIC 3	.63***	.78***
VI. Initiation Assertiveness		
11. "Pos" Initiate	.98**	.18
12. "Neg" Initiate	.55**	.83**
VII. Refusal Assertiveness		
13. "Pos" Refuse	.59***	.81***
14. "Neg" Refuse	.75***	.66***
VIII. Birth Control Assertiveness		
15. "Pos" BC	.94***	.34
16. "Neg" BC	.77***	.64***

Note: ** $p \leq .01$, *** $p \leq .001$.

Table 7

Means and Standard Deviations for All Variables

Variable	Sample	Observed Range	Mean	SD
Social Support	1	2-4	3.45	.28
	2	2-4	3.49	.33
Self-Esteem	1	2-4	2.87	.42
	2	2-4	2.92	.46
Demoralization	1	1-3	2.14	.44
	2	1-4	2.08	.51
Purpose in Life	1	3-5	3.85	.42
	2	3-5	3.90	.45
Stress	1	2-4	2.77	.55
	2	2-4	2.79	.57
Vaginal/Oral Sex	1	1-5	2.71	1.33
	2	1-5	2.57	1.33
Prelimin. Sexual Exp.	1	2-5	4.65	.69
	2	3-5	4.73	.49
Creat. Sexual. Exp.	1	1-5	3.03	.99
	2	1-5	2.91	1.04
Psy. Victimization	1	1-4	2.11	.71
	2	1-4	1.92	.63
Sexual Abuse	1	1-4	1.10	.39
	2	1-5	1.07	.26
Self-Efficacy 1	1	1-5	3.55	1.39
	2	1-5	3.82	1.41
Self-Efficacy 2	1	1-5	3.61	1.34
	2	1-5	3.58	1.39
Self-Efficacy 3	1	2-5	3.98	1.13
	2	1-5	4.06	1.21
High-Risk Behavior	1	1-3	1.07	.31
	2	1-2	1.05	.20

Table 7. Continued.

Variable	Sample	Observed Range	Mean	SD
Sub. Use Frequency	1	1-3	1.06	.23
	2	1-2	1.03	.11
Sub. Use Intensity	1	1-3	1.05	.21
	2	1-3	1.01	.09
Ant. Partner's Neg. Reaction 1	1	1-4	1.24	.53
	2	1-3	1.26	.52
Ant. Partner's Neg. Reaction 2	1	1-3	1.21	.48
	2	1-3	1.21	.49
Ant. Partner's Neg. Reaction 3	1	1-4	1.33	.73
	2	1-4	1.23	.52
Sexual Assert. Initiation	1	1-5	2.65	.84
	2	1-5	2.84	.86
Sexual Assert. Refusal	1	1-5	3.81	.81
	2	3-5	4.80	.71
Sexual Assert. Birth Control	1	1-5	4.17	.86
	2	3-5	4.40	.72

Figure 1. Theoretical structural model of the eight major constructs. Unbroken lines represent direct effects, whereas broken lines indicate indirect effects. The plus and minus signs indicate the hypothesized direction of impact of independent constructs on dependent constructs.

Figure 2. Final structural model of the major constructs with prediction errors and standardized path coefficients for significant paths only. The correlations among the independent constructs are omitted for ease of presentation. (* $p < .01$, ** $p < .01$, *** $p < .001$).

Appendix A: Items

URI Lifestyle Survey Items Used

Background Information

1. Race or cultural group:
 - a= White
 - b= Afro-American
 - c= Asian-American
 - d= Hispanic American
2. Year in college:
 - a= freshman
 - b= sophomore
 - c= junior
 - d= senior
 - e= other
3. Religious affiliation:
 - a= Catholic
 - b= Protestant
 - c= Jewish
 - d= Eastern
 - e= Other
4. How many sexual partners have you had in your lifetime?
 - a= none
 - b= one
 - c= 2 - 5
 - d= 6 - 10
 - e= 11 or more
5. How much have you discussed your sexual experience with a parent (or parent substitute)?
 - a= not at all
 - b= a little
 - c= somewhat
 - d= quite a lot
 - e= almost all
6. When answering the following question, please think about your most recent or current intimate relationship and use the following scale:
 - a= Partner Much More
 - b= Partner Somewhat More
 - c= Partner and I about Equally
 - d= I Somewhat More
 - e= I Much More

Who has (had) more say regarding sexual relations?

7. Were you ever forced to have sex with anyone against your will during childhood?
a= no
b= yes, one time
c= yes, two times
d= yes, three times
e= yes, more than three times
8. Were you ever forced to have sex with anyone against your will during adolescence?
a= no
b= yes, one time
c= yes, two times
d= yes, three times
e= yes, more than three times
9. Have you ever had sexual intercourse with a man when you didn't really want to because he threatened to end your relationship otherwise?
a= definitely yes
b= probably yes
c= probably no
d= definitely no
10. Have you ever had sexual intercourse with a man when you didn't really want to because he used some degree of physical force (twisting your arm, holding you down, etc.)?
a= definitely yes
b= probably yes
c= probably no
d= definitely no
11. Have you ever been raped?
a= definitely yes
b= probably yes
c= probably no
d= definitely no

Sexual Assertiveness Scale (Quina, Harlow, Gibson, & Morokoff, 1990)

Rate how you behave in each of the situations indicated. If you have not had a steady partner, or if you have not been in the particular situation, please rate how you believe you would behave.

a= never: 0% of the time

b= sometimes: about 25% of the time

c= about 50% of the time

d= usually: about 75% of the time

e= always: 100% of the time

1. If I wanted to have intercourse with my partner, I would initiate it.
2. I would have sex without birth control if that's what my partner wanted. (R)
3. If I suggested using birth control and my partner refused, I would have sex without birth control. (R)
4. If a partner wanted me to perform oral sex on him, and I didn't want to, I would refuse.
5. If I refused to kiss a partner, and he continued to pressure me, I would give in. (R)
6. If I would like a partner to fondle my genitals, I would initiate it.
7. If my partner pressured me to let him perform oral sex on me after I had refused, I would continue to refuse.
8. I wait for my partner to be the one to start any breast fondling in our relationship. (R)
9. If I were to have intercourse, I would make sure that we used birth control.
10. If a partner wanted me to, I would perform oral sex on him even if I didn't want to. (R)
11. I wait for my partner to initiate any fondling of my genitals in our relationship. (R)
12. If a partner wanted to perform oral sex on me, and I didn't want him to, I would agree to it anyway. (R)
13. If I wanted a partner to use a condom and he didn't want to, I would agree to have intercourse without the condom. (R)
14. If I wanted a partner to do oral sex on me, I would let him know.
15. If I suggested using a condom and my partner resisted, I would continue to insist on using it.
16. If a partner wants to touch my breasts, and I don't want him to, I would refuse.
17. If I asked a partner to use birth control and he refused, then I would refuse to have intercourse.
18. Women should wait for men to initiate physical contact like breast touching. (R)

NOTE: The final score for the three separate dependent measures is the mean of: items 3,15,17,20,31,40 for INITIATION composite; items 10,11,16,19,22,33 for REFUSAL; and, items 5,9,18,26,32,34 for BIRTH CONTROL. The items with (R) following were reversed score. Higher scores indicate greater sexual assertiveness and range from 1 to 5.

Interpersonal Support Evaluation List (Cohen, Mermelstein, Kamarck, & Hoberman, 1985)

For each statement, chose the most appropriate response using the following scale:

- a= definitely true of me
- b= probably true of me
- c= probably false of me
- d= definitely false of me

1. There are several people that I trust to help solve my problems.
2. Most of my friends are more interesting than I am. (R)
3. There is someone who takes pride in my accomplishments.
4. When I feel lonely, there are several people I can talk to.
5. There is no one that I feel comfortable talking to about my intimate problems. (R)
6. I often meet or talk with family or friends.
7. Most people I know think highly of me.
8. If I needed a ride somewhere very early in the morning, I would have a hard time finding someone to take me. (R)
9. I feel like I'm not always included by my circle of friends. (R)
10. There really is no one who can give me an objective view of how I'm handling my problems. (R)
11. There are several different people I enjoy spending time with.
12. I think that my friends feel that I'm not very good at helping them solve their problems. (R)
13. If I were sick and needed someone to take me to the doctor, I would have trouble finding someone. (R)
14. If I wanted to go on a trip for a day (e.g., to the beach or country), I would have a hard time finding someone to go with me. (R)
15. I feel that there is no one I can share my most private worries and fears with. (R)
16. If I were sick, I could easily find someone to help me with my daily chores.
17. There is someone I can turn to for advice about handling problems with my family.
18. I am as good at doing things as most other people are.
19. If I decided one afternoon that I would like to go to the movies that evening, I could easily find someone to go with me.
20. When I need suggestions on how to deal with a personal problem, I know someone I can turn to.
21. If I needed an emergency loan of \$100, there is someone (friend, relative or acquaintance) I could get it from.
22. In general, people do not have much confidence in me. (R)
23. Most people I know do not enjoy the same things that I do. (R)
24. There is someone I could turn to for advice about making career plans.
25. I don't often get invited to do things with others. (R)
26. Most of my friends are more successful at making changes in

- their lives than I am. (R)
27. If I wanted to have lunch with someone, I could easily find someone to join me.
28. I am more satisfied with my life than most people are with theirs.
29. No one I know would throw a birthday party for me. (R)
30. It would be difficult to find someone who would loan me their car for a few hours. (R)
31. I am closer to my friends than most other people are to theirs.
32. There is at least one person I know whose advice I really trust.
33. If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me. (R)
34. I have a hard time keeping pace with my friends. (R)
35. There is really no one I can trust to give me good financial advice. (R)
36. If a family crisis arose, few of my friends would be able to give me good advice on handling it. (R)
37. If for some reason I were put in jail, there is someone I could call who would bail me out.
38. If I had to go out of town for a few weeks, someone I know would look after my home (the plants, pets, yard, etc.).
39. If I got stranded ten miles out of town, someone I know could give me a ride.
40. If I had to mail an important letter at the Post Office by 5 p.m., there is someone I know who could help me get it there.

NOTE: The final score is the mean of items 1 to 40 after reverse-scoring the items indicated (R), such that higher scores indicate greater social support and range from 1 to 4.

Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983)

Indicate how often in the last month each one pertained to you, using the following choices:

- a= never
- b= almost never
- c= sometimes
- d= fairly often
- e= very often

1. Been upset because something happened unexpectedly.
2. Felt unable to control important things in your life.
3. Felt nervous and "stressed".
4. Dealt successfully with irritating life hassles. (R)
5. Felt you were effectively coping with important changes that were occurring in your life. (R)
6. Felt confident about your ability to handle your personal problems. (R)
7. Felt things were going your way. (R)
8. Found that you could not cope with all the things you had to do.
9. Been able to control irritations in your life. (R)
10. Felt you were on top of things. (R)
11. Been angered because of things that happened that were out of your control.
12. Found yourself thinking about things that you had to accomplish.
13. Been able to control the way you spend your time. (R)
14. Felt difficulties were piling up so high you couldn't overcome them.

Note: The final score is the mean of items 1 to 14 after reversing those items marked (R), such that higher scores indicate higher stress, and range from 1 to 5.

Purpose in Life (Harlow, Newcomb, & Bentler, 1987)

Fill in the letter that indicates your amount of agreement or disagreement with the statements using the following scale:

- a= strongly disagree or does not apply
- b= disagree
- c= don't know
- d= agree
- e= strongly agree

1. I am usually completely bored. (R)
2. Life to me seems always exciting.
3. In life I have no goals or aims at all. (R)
4. My personal existence is utterly meaningless and without purpose. (R)
5. Every day is constantly new and different.
6. If I could choose, I would prefer never to be born. (R)
7. After retiring, I would do some of the exciting things I have always wanted to do.
8. In achieving life goals I have made no progress whatsoever. (R)
9. My life is empty, filled only with despair. (R)
10. If I should die today, I would feel that my life has been very worthwhile.
11. In thinking of my life, I often wonder why I exist. (R)
12. As I view the world in relation to my life, the world completely confuses me. (R)
13. I am a very irresponsible person. (R)
14. Concerning man's freedom to make his own decisions, I believe man is absolutely free to make all life choices.
15. With regard to death, I am prepared and unafraid.
16. With regard to suicide, I have thought of it seriously as a way out. (R)
17. I regard my ability to find meaning, purpose, or mission in life as very great.
18. My life is in my hands and I am in control of it.
19. Facing my daily tasks is a source of pleasure and satisfaction.
20. I have discovered no mission or purpose in life. (R)

NOTE: The final score is the mean of items 1 to 20 after reverse-scoring the items indicated (R), such that higher scores indicate more purpose in life and range from 1-5.

Demoralization (Harlow, 1990)

Please indicate how frequently each experience has occurred in the last six months using the following scale:

a = Never b = Rarely c = Sometimes d = Often e = Always

1. I feel puzzled about my life situation.
2. I feel confused and bewildered about life.
3. When faced with a dilemma, I usually know what to do. (R)
4. I find myself unable to make major life decisions.
5. I feel as though there's no way out.
6. I feel that I have a sense of inner control over myself. (R)
7. The world appears threatening to me.
8. At times, I feel that my life is hopeless.
9. I experience a certain degree of independence in my life. (R)
10. I find myself preoccupied with merely trying to survive.
11. I feel relatively isolated and alienated from others.
12. I am able to cope with pressing problems. (R)
13. I am able to perform tasks in stressful situations. (R)
14. I am able to express feelings appropriately when under stress. (R)
15. I feel powerless to change my myself.
16. When necessary, I can turn a situation around for the better. (R)
17. I often fail to meet my own expectations.
18. I usually am able to meet the expectations of others. (R)
19. I am able to take action to correct a situation when necessary. (R)
20. I am a self-confident person. (R)
21. I feel anxious and apprehensive.
22. I possess a degree of self-determination. (R)
23. I feel resentful about past failures.
24. I get satisfaction from successfully performing a task. (R)

NOTE: The final score is the mean of items 1 to 24 after reverse-scoring the items indicated (R), such that higher scores indicate higher demoralization and range from 1 to 5.

Substance Use Frequency Scale (Harlow, 1991)

Indicate how often in the last six months you have used any of these without a doctor's orders, on the following scale:

- a = never
- b = a few times
- c = about once a month
- d = about once a week
- e = once a day or more

1. Wine	7. Downers
2. Beer	8. Heroin
3. Liquor	9. Psychedelics
4. Marijuana	10. Cocaine
5. Hashish	11. Crack
6. Uppers	12. Other (describe on separate sheet)

NOTE: The final score is the mean of items 1 to 12 with higher scores indicating higher substance use and ranging from 1 to 5.

Substance Use Intensity (Harlow, 1991)

Please indicate how often in the last six months you have over-indulged in (or gotten high on) any of these, on the following scale:

- a = never
- b = a few times
- c = about once a month
- d = about once a week
- e = once a day or more

1. Wine	7. Downers
2. Beer	8. Heroin
3. Liquor	9. Psychedelics
4. Marijuana	10. Cocaine
5. Hashish	11. Crack
6. Uppers	12. Other (describe on separate sheet)

NOTE: The final score is the mean of items 1 to 12 with higher scores reflecting higher intensity of substances and ranging from 1-12.

High-Risk Scale (Harlow, 1991)

Choose the following answer that most applies to you.

a = Never (None) b = 1 c = 2 - 5 d = 6 - 10 e = 11 or more

2. DURING THE LAST MONTH, how many times did you have anal sex?
4. DURING THE LAST MONTH, how many times did you shoot drugs with a needle?
5. DURING THE LAST MONTH, how many times did your partner shoot drugs with a needle?

NOTE: The final score is the mean of items 2,4,5 for the composite score HIGH-RISK (higher scores reflect more high-risk behaviors within the last month). The range is from 1 to 5.

Sexual Experience Scale (adapted from Derogatis & Melisaratos, 1979)

Indicate the frequency of each activity you have experienced during your sexual life, using the following scale:

- a = never
- b = 1 - 2 times
- c = 3 - 5 times
- d = 6 - 10 times
- e = 11 or more times

1. Masturbating alone
2. Oral stimulation of your partner's genitals
3. Mutual oral stimulation of genitals
4. Intercourse, sitting position
5. Intercourse, vaginal entry from rear
6. Mutual petting of genitals to orgasm
7. Having your genitals orally stimulated
8. Deep kissing (e.g., tongue contact)
9. Breast petting while you were clothed
10. Intercourse with female on top position
11. Kissing of sensitive (nongenital) areas of the body
12. Intercourse, side by side
13. Your partner lying on you while you are clothed
14. Breast petting while you are nude
15. Having your genitals caressed by your partner
16. Your male partner kissing your nude breasts
17. Intercourse with male on top position
18. Stroking and petting your sexual partner's genitals
19. Kissing on the lips
20. Anal intercourse

NOTE: The final score is the mean of items 14,15,16,18,19 for Preliminary sexual experience; items 1-5, 10,12,17,20 for Creative sexual experience. Higher scores indicate higher frequencies of sexual activities and range from 1 to 5.

Sexual Behavior Scale (Harlow, 1991)

Choose the answer that most applies to you.

a = Never (None) b = 1 c = 2 - 5 d = 6 - 10 e = 11 or more

1. DURING THE LAST MONTH, how many times did you have vaginal sex?
3. DURING THE LAST MONTH, how many times did you have oral sex?

NOTE: The final score is the mean of items 1,3 for the composite score SEXUAL BEHAVIOR (higher scores indicate higher frequency of vaginal/oral sex within the last month). The range is from 1 to 5.

The Sexual Victimization Scale (Koss & Oros, 1982)

Please answer whether each of the experiences has ever happened to you, using the following scale:

- a= definitely yes
- b= probably yes
- c= probably no
- d= definitely no

Have you ever ...

1. had a man misinterpret the level of sexual intimacy that you desired? (R)
2. been in situation where a man became so sexually aroused that you felt it was useless to stop him even though you did not want to have sexual intercourse? (R)
3. had sexual intercourse with a man even though you really didn't want to because he threatened to end your relationship otherwise? (R)
4. had sexual intercourse with a man when you didn't really want to because you felt pressured by his continual arguments? (R)
5. found out that a man had obtained sexual intercourse with you by saying things he didn't really mean? (R)
6. been in a situation where a man used some degree of physical force (twisting your arm, holding you down, etc.) to try to make you engage in kissing or petting when you didn't want to? (R)
7. been in a situation where a man tried to get sexual intercourse with you when you didn't want to by threatening to use physical force (twisting your arm, holding you down, etc.) if you didn't cooperate, but for various reasons sexual intercourse did not occur? (R)
8. been in a situation where a man used some degree of physical force (twisting your arm, holding you down, etc.) to try to get you to have sexual intercourse with him when you didn't want to, but for various reasons sexual intercourse did not occur? (R)
9. had sexual intercourse with a man when you didn't want to because he threatened to use some degree of physical force (twisting your arm, holding you down, etc.) if you didn't cooperate? (R)
10. had sexual intercourse with a man when you didn't want to because he used some degree of physical force (twisting your arm, holding you down, etc.)? (R)
11. been in a situation where a man obtained sexual acts with you such as anal or oral intercourse with you when you didn't want to by using threats or physical force (twisting your arm, holding you down, etc)? (R)
12. ever been raped? (R)

NOTE: The final score for the composite of Psychological Victimization is the mean of items 1 to 6, whereas items 7 to 12 were used for the Physical Victimization composite. All items were reversed scored with higher scores indicating greater victimization and range 1 to 4.

Early Sexual Abuse (adapted from Bradley Hospital)

Please answer the following items using the scales provided:

- a= no
- b= yes, one time
- c= yes, two times
- d= yes, three times
- e= yes, more than three times

1. Were you ever forced to have sex with anyone against your will during childhood?
2. Were you ever forced to have sex with anyone against your will during adolescence?

NOTE: The final score is the mean of items 1 and 2. Higher scores indicate more sexual abuse and range from 1 to 5.

Anticipated Partner's Negative Reaction

While thinking about how your current (or most recent) steady sexual partner, answer how you think he would react using the following scale:

- a= agree to wear a condom
- b= disagree, but wear a condom anyway
- c= refuse and would not have sex
- d= become angry, physical violent or forceful
- e= does not apply

1. If you asked him to wear a condom during sex?
2. If you insisted that he wear a condom during sex?
3. If you refused to have sex with him without the condom?

Note: The final score is the mean of items 1 to 3 with higher scores reflecting a more negative response, and range from 1 to 5.

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