Sexual Assertiveness Scale (SAS) for Women:
Development and Validation

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Four studies were conducted to develop and validate the Sexual Assertiveness Scale (SAS), a measure of sexual assertiveness in women that consists of factors measuring initiation, refusal, and pregnancy—sexually transmitted disease prevention assertiveness. A total of 1,613 women from both university and community populations were studied. Confirmatory factor analyses demonstrated that the 3 factors remained stable across samples of university and community women. A structural model was tested in 2 samples, indicating that sexual experience, anticipated negative partner response, and self-efficacy are consistent predictors of sexual assertiveness. Sexual assertiveness was found to be somewhat related to relationship satisfaction, power, and length. The community sample was restated after 6 months and 1 year to establish test-retest reliability. The SAS provides a reliable instrument for assessing and understanding women’s sexual assertiveness.

Sexual assertiveness is important for attainment of sexual goals and self-protection from unwanted or unsafe sexual activity. However, traditional gender roles include expectations for men to initiate sexual activity and for women to respond to men’s attempts to initiate sexual behavior (Morokoff, 1990; Muehlenhard & McCoy, 1991).

Specific problems are associated with women’s compliance with gender-based norms for sexual behavior. One problem is that by adopting a sexually passive role, women do not have the opportunity to assert their own sexual interests by initiating sexual activity. Research has shown that although men may often be the first to directly express sexual interest, women indicate sexual interest indirectly, for example by smiling, touching, or gazing into a partner’s eyes (Perper & Weis, 1987). Evidence also suggests that women defer in many respects to their male partner’s sexual initiatives. For example, Blumstein and Schwartz (1983) reported that 51% of men and 48% of women indicated that the husband was more likely to initiate sex. Only 16% of men and 12% of women indicated that wives were more likely to be the initiator. Such cultural limitations on women’s socially appropriate expression of sexual interest may also contribute to the perception that “no” really means “yes.”

A second problem for women in complying with an expectation of sexual passivity is that women may be reluctant to refuse unwanted sex. Lewin (1985) stated that “unwanted intercourse occurs when a reluctant partner is induced to acquiesce against his/her will by psychological pressure by a would-be lover, but without the use of threat or force” (p. 184). She emphasized that although unwanted intercourse is not rape, neither is it wanted or desired by one partner. Such nonviolent sexual coercion is more common than violent sexual coercion (Muehlenhard & Cook, 1988), and reported rates of unwanted intercourse are alarmingly high. In a 1975 study of college women, 30% of college women reported having experienced unwanted intercourse (described in Lewin, 1985). More recently, Ogletree (1993) found that 42% of women were victims of sexual coercion in dating, and of those women, 70% had unwanted intercourse because of their date’s “overwhelming arguments and pressure” (p. 149). Thus, the experience of unwanted sex is a common and pervasive problem for women.

As with sexual initiation behavior, there is evidence that women often hesitate to use direct refusal strategies. When college women were asked about their feelings regarding refusing undesired sex, they reported that they would be more concerned about hurting their partners’ feelings than with their own emotional response, for example, shame or anger (Lewin, 1985).

Finally, passivity with respect to insistence on pregnancy and sexually transmitted disease (STD) prevention can result in unwanted pregnancy and disease. There is ample evidence available that women are not engaging in adequate preventive behav-
ior. For example, one million teenage women become pregnant each year (Hayes, 1987). It has been estimated that 43% of women have at least one pregnancy by the age of 20 (Forrest, 1986). Furthermore, over the past several years, women have become the fastest growing group of people with acquired immunodeficiency syndrome (AIDS) (Centers for Disease Control and Prevention, 1995). The primary approaches to prevention of pregnancy and HIV or other STD control are the same: sexual abstinence or negotiation with men for the use of contraception—barrier protection. Both approaches require women to negotiate sexual behavior with a partner. This involves playing a sexually active role that conflicts with traditional gender expectations.

The construct of sexual assertiveness is proposed here to organize and further the understanding of strategies used by women to accomplish goals of sexual autonomy (Morokoff & Harlow, 1993). Our conceptualization of sexual assertiveness rests on a general conceptualization of assertiveness based on human rights to autonomy. We assume that individuals “own” or have rights over their bodies and their sexuality and are never under a social obligation to let someone touch their body (except in the social convention of the handshake) or to touch another person sexually. This concept thus implies a basic human right to retain autonomy over sexual experience. We view this basic human right as being expressed through the response classes of initiation and refusal. We thus set out to develop a reliable scale that would have subscales related to initiation of wanted sexual events and refusal of unwanted sexual events. Because we were particularly interested in developing a scale that would have relevance to health protection, we were further interested in the specific content domains of initiation and refusal as they relate to prevention of pregnancy and STDs.

A few previous studies have reported measures of women’s sexual assertiveness. The Sexual Assertiveness Questionnaire, a 28-item self-report inventory, was developed by Muehlenhard and Linton (1985) to measure women’s ability to refuse unwanted dates, kissing, petting, and sexual intercourse. Each item presents a brief scenario in which a man is trying to persuade a woman to go out on a date or engage in a sexual behavior with him. Women are instructed to imagine that they do not wish to do this and are asked to indicate whether they would refuse and whether they would feel comfortable in refusing. In addition, Flarity-White and Muehlenhard (1988) developed the Sexual Assertiveness Role-Play Test, which consists of eight role-play situations in which an actor prompts an actress to have sexual intercourse. The action is then stopped, allowing the participant, rather than the actress, to respond. The Sexual Assertiveness Self-Statement Test was developed by Muehlenhard, Julsonnet, Carlson, and Flarity-White (1989) to measure women’s self-verbalizations when confronted with unwanted sexual advances. All of these tests were developed to identify women who may be at risk for sexual coercion and who might receive benefit from a cognitive—behavioral program for preventing sexual coercion. Thus, these measures focus on assertiveness related to refusal of unwanted sexual activity but do not address assertiveness related to sexual initiation.

The first goal of the present research was to develop a scale to measure multiple aspects of assertiveness. Therefore, the Sexual Assertiveness Scale (SAS) was developed to measure initiation of wanted sexual experience, refusal of unwanted sexual experience, and prevention of pregnancy—STDs with a regular partner. The SAS was designed to measure sexual assertiveness specifically in women, because previous theorists have established the importance of limiting the domain and population for measures of assertiveness (Rakos, 1991). Thus, although it is clear that men may, for example, engage in unwanted sexual behavior, the conceptualization of sexual assertiveness presented here is specific to women. We conducted four studies, each based on independent samples, to establish the stability of the factor structure of the SAS.

The second goal of this research was to examine a network of variables we hypothesized to be related to sexual assertiveness. This objective followed from the recommendation of Cronbach and Meehl (1955) to establish construct validity through a nomological net of relevant variables. Sexual assertiveness subscales were correlated with single-item measures of sexual assertiveness and general assertiveness (Study 1) to establish preliminary validity. Further validation involved correlating the subscales with self-report measures of initiation, refusal, and pregnancy—STD prevention behaviors (Study 3) and with stage of change for condom use, a measure of readiness to engage in an STD-prevention behavior (Study 3).

To evaluate a set of predictors of sexual assertiveness, we applied a multifaceted model developed for research on HIV risk (Harlow, Quina, Morokoff, Rose, & Grimley, 1993) to assertiveness. This model includes three components: behavioral variables, attitudinal variables, and interpersonal variables. In Studies 2 and 3 we examined a behavioral variable likely to be related to sexual assertiveness—sexual experience—two attitudinal variables potentially related to sexual assertiveness—self-efficacy for STD-preventive behaviors and sexual self-acceptance—and two interpersonal variables—sexual victimization history and anticipation of a negative reaction from partner. Selection of these variables was guided by the assumption that interpersonal power impacts strongly on many aspects of women’s sexually related behaviors, from victimization history to negotiations for condom use (Amaro, 1995; Quina, Harlow, Morokoff, & Saxon, 1997).

We expected sexual experience to be positively related to all aspects of sexual assertiveness, especially initiation assertiveness. Experience with a behavior typically provides the individual with a feeling of agency with respect to engaging in that behavior. Laws and Schwartz (1977) predicted that as women gain greater sexual experience (e.g., as their number of sex partners increases and they feel more comfortable experiencing sexual pleasure), women will take more responsibility for their sexuality.

We expected a woman’s sense of self-efficacy with respect to her sexual autonomy to be positively related to all aspects of sexual assertiveness. Self-efficacy represents a sense of one’s capability to act autonomously. Because we were particularly interested in understanding the role of sexual assertiveness in STD and HIV prevention, we focused on self-efficacy for AIDS prevention and condom use. Previous research has shown that self-efficacy for safer sex is related to greater HIV-preventive behavior, including condom use (Goldman & Harlow, 1993). We thus hypothesized that self-efficacy for AIDS prevention or condom use would be positively related to sexual assertiveness for pregnancy—STD prevention.
The extent to which one has a positive image of one's sexuality was assessed through a measure of sexual self-acceptance. We hypothesized that a positive view of one's sexuality and acceptance of the role of sexuality in one's life would be associated with an increase in all aspects of sexual assertiveness.

Victimization history is relevant to sexual assertiveness, because the experience of having been sexually victimized is an experience in lack of sexual autonomy. Such an experience may reinforce the idea that complying with sexual demands, even unreasonable ones, is necessary for self-preservation. Under such an influence, a sexual abuse or assault survivor may become very sexually compliant. The trauma of childhood sexual abuse has been shown to be associated with later sexual behavior (e.g., Johnsen & Harlow, 1996). Individuals who experienced childhood sexual abuse have sex more frequently with casual sex partners and are twice as likely to have multiple sex partners on an average yearly basis than are individuals who reported no history of abuse (Zierler et al., 1991). According to a literature review by Polusny and Follette (1995), women with sexual abuse histories change partners more frequently, engage in sexual activities with casual acquaintances more, have more short-term relationships, engage in voluntary sexual intercourse at an earlier age, and have more sexual partners than do women not reporting sexual abuse. We therefore hypothesized that sexual victimization would lead to less assertiveness in one's ability to refuse unwanted sex, but more assertiveness in initiating sex.

We hypothesized that anticipation of a negative partner response to assertive sexual behaviors would be inversely related to sexual assertiveness. Prior research suggests that the anticipated partner response (positive or negative) can be an asset or a deterrent to one's assertion of safer sexual practices (Harlow et al., 1993). Jemmott and Jemmott (1991,1992) found that, for their sample of minority women, negative responses of sexual partners were the most important normative influence against using condoms.

To test whether sexual assertiveness is related to characteristics of the individual's relationship with a sexual partner, we examined the association between sexual assertiveness and three aspects of the relationship: relationship satisfaction (Study 2), power within the relationship (Study 2), and relationship length (Study 3). It is plausible that sexual assertiveness may vary with the level of relationship satisfaction and power in a relationship. This could be because women who see themselves as being sexually assertive seek out relationships in which they will be more satisfied, powerful, or both. Alternatively, it may be that for the individual woman, being in a satisfying relationship or one in which she has greater power will encourage greater sexual assertiveness. Longer relationships may also encourage greater sexual assertiveness because of the stability of the relationship.

The relationship of scale scores to social desirability was evaluated in Study 2. Social desirability was conceptualized both as a potential source of response bias and as a personality characteristic of substantive interest. That is, a relationship of scale scores to social desirability could potentially indicate an association between a tendency to respond in socially appropriate ways and, for example, the tendency to refuse unwanted sex. Determination of these relationships might further the understanding of sexual assertiveness.

Although recognizing that a woman's level of assertiveness may vary depending on the specific nature of the sexual situation, we nevertheless hypothesized that sexual assertiveness would function as a relatively stable aspect of personality. Therefore, in Study 4, we evaluated test–retest reliability at 6- and 12-month intervals to determine the stability of SAS scores over time.

Study 1

The purpose of Study 1 was to develop a three-dimensional measure of sexual assertiveness in women, to confirm this factor structure across samples, and to establish preliminary construct validity for the scale by correlating factors with single-item measures of general and sexual assertiveness.

Method

Participants

Two samples of undergraduate women were studied. The first sample consisted of 260 women who were at least 18 years old and who were attending a northeastern state university. One hundred forty-three women were recruited from a large introductory psychology course on the main campus. In addition, 117 women were recruited from the college of continuing education. Mean age for the combined group of participants was 25.7 years (SD = 10.8). Participants were offered the opportunity to enter a raffle. Each participant returned a raffle ticket with her completed survey, and I received a $25 gift certificate from the campus bookstore in a random drawing. About 50% of those offered the opportunity to participate did so.

The second sample was randomly drawn from a registrar's list of all sophomore and junior women at the same institution. Every fifth person on the list was telephoned and invited to participate in a survey of AIDS knowledge and attitudes. A total of 340 women were contacted. Completed questionnaires were returned by 136 women (40%) in the sample. These participants were similarly offered the opportunity to enter a raffle with a $25 gift certificate as a prize. The mean age of participants in the second sample was 21.1 (SD = 5.8).

Item Pool

An initial pool of 112 items was generated by creating self-statements concerning nine activities: kissing, breast touching, receiving oral sex, performing oral sex, genital touching by partner, genital touching of partner, intercourse, anal sex, and use of birth control. The sexual behaviors were adapted from the items on a scale of sexual experience (Brady & Levitt, 1965), which is a Guttman scale for sexual behaviors. These behaviors were crossed with aspects of sexual assertiveness. Thus, for each activity, items described assertiveness with respect to initiation of the activity, refusal of the activity, and discussion of the activity. Several wordings for each combination were presented. For example, for refusal of kissing, respondents were asked to indicate the extent to which "I feel comfortable refusing to kiss a partner when I don't want to," "If a partner wants to kiss, and I don't want to, I give in," "I give in," "When I refuse to kiss a partner who wants to kiss me, I feel uncomfortable," "If a partner wants to kiss and I don't want to, we do it anyway," "If a partner pressures me to kiss him after I have refused, I continue to refuse," "If a partner wants to kiss and I don't want to, I refuse." Alternate wordings were constructed to tap reactions to increasing pressure from the partner. Some items were worded positively and others, negatively. Items related to each of the
nine activities were mixed throughout the questionnaire. Each item was rated on a 5-point scale ranging from 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; and e = always, 100% of the time.

In addition, a set of 24 questions was generated to tap attitudes concerning gender roles for initiation and refusal of the nine sexual activities. Thus items asked respondents to endorse whether it is appropriate for women to initiate and refuse the behaviors assessed in the first 112 items. Examples of these attitudinal items included: "It is appropriate for women to insist on using birth control" and "It should be up to the man to suggest that he perform oral sex on the woman." Each attitudinal item was rated on the following scale: a = disagree strongly, b = disagree somewhat, c = mixed, d = agree somewhat, e = agree strongly.

The full 136-item scale was initially administered to two focus groups of 5 undergraduate women each, one from the main campus and one from the college of continuing education. The purpose of the focus groups was to provide comments on wording of the scale items. Feedback from the focus groups resulted in minor rewording of items that were then used in Study 1.

Additional Measures

General assertiveness. Respondents rated the statement "In general, I believe that I am an assertive person" on a scale from a = disagree strongly to e = agree strongly.

Sexual assertiveness (single item). Respondents rated the statement "I believe that I am assertive in sexual matters" on the same response scale used for general assertiveness.

Procedure

For the first sample, two female experimenters administered the 136 survey items described above to participants in small groups. For the second sample, participants were contacted by telephone by a female experimenter, who invited them to participate in the study. If interested, the participant received a survey in the mail with a postage-paid envelope for return mail. The survey included additional measures not analyzed in this study. Instructions on the survey told respondents, "For each of the following items, please rate how you believe you would behave."

Results

A principal-components analysis with oblique direct quaternion rotation (Jennrich & Sampson, 1966) was conducted on Sample 1 (N = 260) to preliminarily verify factor structure. Oblique rotation was used because we assumed that factors might be somewhat correlated. On the basis of a scree plot of the eigenvalues, this analysis resulted in a three-factor solution. Among the 61 items loading .45 or higher on a factor, 19 were eliminated because of highly redundant wordings. For the resulting 42 items, Factor 1, labeled Initiation, comprised 17 items, Factor 2, labeled Refusal comprised 14 items, and Factor 3, labeled Pregnancy–STD Prevention, comprised 11 items. These factors accounted for 41% of the total variance. This 42-item scale was then administered to Sample 2 (N = 136). By using factor loadings and item–total correlations from both samples, and with the constraint that half the items for each subscale be positively worded and half the items be negatively worded, we derived an 18-item scale with six items for each of three subscales. We then conducted data analysis on this 18-item scale for each of the samples to confirm the factor structure.

A revised version of the scale items used in Study 1 may be found in the Appendix.2

Confirmation of Factor Structure

A principal-components analysis with oblique, direct quaternion rotation was conducted for the 18-item scale in each sample. Factor loadings of each item are presented in Table 1. Individual items (with negatively worded items reverse scored) range from 1 (least assertive) to 5 (most assertive). Means, standard deviations, item–total correlations, and standardized coefficient alphas for each subscale are also included in Table 1. On the basis of a scree plot of the eigenvalues, the three factors were again retained, and they accounted for 52% of the item variance in each sample. The intercorrelations among factors were evaluated. No significant correlation was found between Initiation and Refusal (r = —.15 in Sample 1, r = —.07 in Sample 2) and between Initiation and Pregnancy–STD Prevention (r = —.01 in Sample 1 and r = .05 in Sample 2). A significant correlation was found between Refusal and Pregnancy–STD Prevention in both Sample 1 (r = —.24, p < .01) and Sample 2 (r = —.28, p < .001).

To ascertain whether the factor structure was stable across the two samples, we conducted a preliminary analysis that consisted of making a contingency table of hits and misses of whether an item loaded on the same factors across samples. This analysis showed 100% consistency. To further assess factor stability, we conducted a multiple sample confirmatory (maximum likelihood) factor analysis on Samples 1 (N = 260) and 2 (N = 136) by using the EQS program (Bentler, 1989). This analysis provides a rigorous statistical test of the hypothesized factor structure of a scale by examining several model versions requiring increasing comparability across samples. Goodness of fit, which should be assessed with several indexes (e.g., Hu & Bentler, 1995), was indicated by a low chi-square relative to the degrees of freedom; a comparative fit index (Bentler, 1990) close to 1.0; a root mean square residual (RMSR) close to zero; and the significance of parameter estimates assessed by z ratios. Several multiple sample analyses, varying as to degree and type of restrictions (see Table 2), were examined in the two samples. In all of the analyses, three correlated factors were hypothesized, each with six items. Though all the factor analyses revealed reasonable overall fit, the two that fit best (Analyses 1 and 4) indicated that the general factor structure and the variances and covariances were not statistically different across samples. In contrast, when both factor loadings and error variances were constrained to be equal across samples (see Analyses 5 and 6), fit indexes were not quite as good, suggesting minor fluctuations in these parameters.

Subscale Construction

To construct separate subscales to measure assertiveness with respect to Initiation, Refusal, and Pregnancy–STD Prevention,
we reverse scored negative items and summed the six items loading on each factor. Potential scores for subscales ranged from 6 to 30. Scale means (see Table 1) indicate that women in these samples viewed themselves as assertive most of the time with respect to Refusal and Pregnancy-STD Prevention but as assertive only about half the time with respect to Initiation.

Preliminary Construct Validity

The relationship of subscales with the sexual assertiveness single item and the general assertiveness single item were determined individually for the two samples. A multiple regression analysis was conducted in which the three subscales were used to predict each of the single-item assertiveness measures. In Sample 1, the regression equation predicting sexual assertiveness had a multiple correlation of .53, \(F(3, 256) = 33.63, p < .001\), accounting for 28% of the variance. The regression equation predicting general assertiveness had a multiple correlation of .44, \(F(3, 256) = 20.56, p < .001\), accounting for 19% of the variance. In Sample 2, the regression equation predicting sexual assertiveness had a multiple correlation of .42, \(F(3, 132) = 9.64, p < .001\), accounting for 18% of the variance. The regression equation predicting general assertiveness had a multiple correlation of .29, \(F(3, 132) = 4.18, p < .01\), accounting for 9% of the variance. The correlation between the single item measure of general assertiveness and the single item measure of sexual assertiveness was significant (\(r = .58, p < .0001\)).

Study 2

The purpose of Study 2 was to assess the relationship of subscale scores of the 18-item Sexual Assertiveness Scale with the network of variables hypothesized to predict sexual assertiveness.

Method

Participants

Two independent samples of undergraduate women at least 18 years old attending the same university as reported in Study 1 were collected. Data for the third sample of 240 women were collected in the spring of 1991, and data for the fourth sample of 263 women (independent of Sample 3) were collected in the fall of 1991. The mean age of participants in the combined samples, labeled Sample 3 + 4 \((N = 503)\), was 20.8 years \((SD = 3.9\) years). All participants were enrolled in an introductory psychology course and received course credit if they elected to participate in the study. Participants represented approximately 75% of the women enrolled in the course each semester.

Measures

Sexual Assertiveness Scale (SAS). The 18-item version of the SAS developed in Study 1 was administered to participants in Study 2. As in Study 1, three subscales of 6 items each assessed assertiveness related to Initiation, Refusal, and Pregnancy–STD Prevention. Instructions for the survey were as follows: "Think about a steady sexual partner you have now or your last steady partner. Answer the next 18 questions with this person in mind."

Social Desirability Subscale. This 20-item inventory is a subscale of the Jackson Personality Research Form (Jackson, 1984), a 22-subscale test of various personality factors. The Social Desirability subscale is designed to measure test-taking attitudes through self-descriptions in terms judged as desirable. High scorers present a favorable picture of themselves in response to personality statements such as "I always try

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Note. See Appendix for item content. STD = sexually transmitted disease.

* Indicates that the item was reversed for each individual before means and standard deviations were calculated.
to be considerate of the feelings of my friends." The test–retest reliability for the social desirability scale was .80 (Bentler, 1964).

Relationship satisfaction. Relationship satisfaction was measured by a modification of Roach, Frazier, and Bowden's (1981) Relationship Satisfaction Scale. Celebucki (1994) selected 12 items from Roach's original 48-item scale that had high item–total correlations. These items were selected so that 6 items were positively worded and 6 items were negatively worded. Items were rated on a scale that ranged from 1 (strongly agree) to 4 (strongly disagree). The coefficient alpha for the resulting 12-item scale was .93 (Celebucki, 1994).

More Say in the Relationship Scale. The respondent's evaluation of who has more say in decisions on 20 areas of relationship functioning was assessed. This has been conceptualized as a measure of power in the relationship (Celebucki, 1990). These items were adapted from Spanier's (1976) measure of marital adjustment. Responses were rated on a 5-point scale ranging from 1 (partner much more) to 5 (I much more).

Adult Sexual Victimization Scale. A modified version of Koss and Oros's (1982) Sexual Victimization Scale was used to measure the extent of adult sexual victimization. Response options for this scale were 1 (definitely no), 2 (probably no), 3 (probably yes), 4 (definitely yes), with higher scores indicating greater victimization. Factor analysis on our data revealed two distinct factors. Items loading on each factor were summed to form two subscales. The Kissing–Manual Contact Sexual Experience subscale assessed the frequency of such activities as deep kissing and breast and genital petting–fondling. The Intercourse Experience subscale measured the frequency of participants' experiences of oral, anal, and vaginal intercourse in varying positions. For the present sample, coefficient alphas for the kissing–manual contact sexual experience scale and the intercourse experience scale were .95 and .85, respectively.

Anticipated negative partner response. Three items were developed to assess anticipated negative partner reaction to contraceptive–condom use (e.g., "While thinking about your current [or most recent] steady sexual partner, answer how you think he would react if you insisted that he wear a condom during sex."). Potential responses for each item were 1 (agree), 2 (disagree, but wear a condom anyway), 3 (refuse and would not have sex), 4 (become angry, physically violent, or forceful), and 5 (does not apply). Internal consistency was high for this scale (coefficient α = .96).

Self-efficacy for STD-preventive behaviors. This was measured by using three items adapted from the research of Sorensen, Gibson, Heitzmann, Dumontet, and Acampora (1988). Three items tapped the participant's beliefs about her ability to prevent exposure to AIDS (e.g., "For me, safer sex is not always possible."). Each item was rated on a 5-point Likert scale with responses ranging from 1 (disagree strongly) to 5 (agree strongly). The coefficient alpha for this scale measured in the present sample was .81.

Procedure
Students were offered the opportunity to participate in a study for course credit. A notice about the study was posted on a bulletin board in the psychology department, and interested students signed up for group administration of a survey instrument. The survey, including questions not analyzed in this study, was administered to participants in groups of 30 to 60 women by a female experimenter.

Results
Internal Consistency
Six-item subscales were created for the three factors by using data from the combined Sample 3 + 4. Internal consistency was
good, with standardized coefficient alphas of .77, .71, .83, and .75 for Initiation, Refusal, Pregnancy—STD Prevention, and total scores, respectively.

Construct Validity

The relationship between the Sexual Assertiveness Scale subscales and the Social Desirability subscale of the Jackson Personality Research Form was investigated on the combined Sample 3 + 4. Social Desirability scores were associated with both Refusal ($r = .31$, $p < .001$) and Pregnancy—STD Prevention scores ($r = .33$, $p < .001$), suggesting that those motivated to appear socially desirable tend to report refusing unwanted sex more often and initiating birth control or condom use more often. Social Desirability scores were not significantly correlated with Initiation scores.

The association between Sexual Assertiveness subscales and relationship variables was also assessed on the combined Sample 3 + 4. A weak association with relationship satisfaction was found for both Initiation ($r = .14$, $p < .01$) and Refusal ($r = .19$, $p < .001$). Similar results were found for the more say in the relationship item scales. All three Sexual Assertiveness Scale subscales demonstrated a weak but significant relationship to the respondent’s indication that she had more say in the relationship (Initiation, $r = .11$; Refusal, $r = .13$; Pregnancy—STD prevention, $r = .16$).

Multiple regression on Sample 3. To evaluate victimization, sexual experience, self-efficacy, and anticipated negative partner response as predictors of sexual assertiveness, we performed preliminary multiple regression analyses for each SAS subscale on the Sample 3 data. The purpose of this analysis was to identify good predictors of sexual assertiveness that could be subjected to structural equation modeling (SEM; Bentler, 1980; Joreskog, 1973; Joreskog & Sorbom, 1986) on Sample 4. For the regression analyses, the specific variables regressed on the SAS subscales were the two subscales of the Adult Sexual Victimization Scale (Sexual Coercion and Sexual Assault), childhood sexual abuse, the two subscales of the Sexual Experience Scale (Kissing—Manual Contact Sexual Experience and Intercourse Experience), three anticipated negative partner response items, and three self-efficacy for STD prevention items. For Initiation, the regression equation including the 11 predictor variables produced a multiple correlation of .45, accounting for 20% of the variance, $F(15, 183) = 3.95, p < .001$. Tests for significance of the standardized sample regression coefficients (t tests) revealed that Initiation was significantly associated with greater intercourse experience ($\beta = .36$, $p < .001$), a history of childhood sexual abuse ($\beta = .14$, $p < .05$), and higher self-efficacy for AIDS-preventive behaviors ($\beta = .17$, $p < .05$).

For Refusal, the regression equation including the 11 predictor variables produced a multiple correlation of .43, accounting for 18% of the variance, $F(15, 183) = 2.88, p < .001$. Tests for significance of the standardized sample regression coefficients (t tests) revealed that Refusal was significantly associated with anticipated negative partner response ($\beta = -.23$, $p < .01$) and sexual coercion ($\beta = -.22$, $p < .01$). These results indicated that increased assertiveness for Refusal was related to a lower expectancy that partners would react negatively to women's refusal of sexual relations and less experience of sexual coercion.

For Pregnancy—STD Prevention, the regression equation including the 11 predictor variables produced a multiple correlation of .64, accounting for 41% of the variance, $F(15, 183) = 8.82, p < .001$. Tests for significance of the standardized sample regression coefficients (t tests) revealed that Pregnancy—STD Prevention assertiveness was significantly associated with self-efficacy for AIDS prevention ($\beta = .33$, $p < .001$), Kissing—Manual Contact Experience Subscale ($\beta = .15$, $p < .05$), Sexual Coercion Subscale ($\beta = -.14$, $p < .05$), and Sexual Assault Subscale ($\beta = .13$, $p < .05$). These results indicated that Pregnancy—STD Assertiveness was associated with higher levels of self-efficacy for AIDS prevention, less experience of sexual coercion, more experience of sexual assault, and greater kissing—manual contact experience.

Next, to facilitate selection of variables for inclusion in structural equation modeling, we conducted a principal-components analysis of the significant predictors found in the three regression analyses. This analysis revealed, by using an oblique, direct quartimin rotation, a four-factor solution that explained a substantial proportion of the variance (69%). The factors were labeled Sexual Victimization (composed of the Sexual Coercion Subscale, the Sexual Assault subscale, and the Childhood Sexual Abuse subscale), Sexual Experience (the Kissing—Manual Contact Sexual Experience subscale and the Intercourse Experience subscale), Anticipated Negative Partner Response (composed of the three scale items), and Self-Efficacy for AIDS-Preventive Behaviors (composed of three scale items). Because each of these was a significant predictor of at least one SAS subscale and because each was reliably measured by two or more indicators, these constructs were used as independent variables in a structural equation model. We hypothesized that Sexual Victimization would be negatively related to Refusal and Pregnancy—STD Assertiveness but positively related to Initiation. We also hypothesized that Sexual Experience would be positively related to both Initiation and Pregnancy—STD Assertiveness. Anticipated Negative Partner Response was hypothesized to be inversely related to Refusal assertiveness. Finally, Self-Efficacy for AIDS-Preventive Behaviors was hypothesized to be positively related to both Initiation and Pregnancy—STD Assertiveness.

Structural equation model on Sample 4. To have two or more indicators for each of the latent constructs of sexual assertiveness (Initiation, Refusal, Pregnancy—STD Prevention), we combined items from each subscale of the SAS into two indicators (item parcels). The first was the average of the three positively worded items (positive sexual assertiveness), and the second was the average of the three negatively worded items (negative sexual assertiveness).

A preliminary analysis of the hypothesized relationships revealed that childhood sexual abuse had a small and nonsignificant factor loading. This measure was therefore dropped from the model.

Statistics related to the overall fit of the SEM revealed that the overall fit was quite good, $\chi^2(101, N = 263) = 159.86, p < .001$. The RMRs was low (.04), revealing that the difference between the pattern of predicted relationships and the data was small. All factor loadings were significant ($p < .001$; factor loadings are available on request). The comparative fit index of .95 indi-
Sexual Assertiveness in Women

Explain that most of the variation and covariation in the data were explained.

A depiction of the SEM for the seven constructs with significant correlations among the independent constructs, the explained variance for dependent constructs, and standardized path coefficients for significant relationships is presented in Figure 1. All nonsignificant paths and correlations are omitted from the diagram for ease of presentation.

A significant path to the dependent construct of Initiation was found only for Sexual Experience, indicating that women with greater sexual experience reported more assertiveness for initiation of sexual behavior. For Refusal, significant structural relationships were found from all four independent variables: sexual victimization, sexual experience, anticipated negative partner response, and self-efficacy for AIDS-Preventive Behaviors.

These findings indicate that Refusal was predicted by less sexual victimization, greater sexual experience, less expectation of a negative reaction from partner, and greater self-efficacy. Finally, for Pregnancy-STD Prevention Assertiveness, significant paths were found from anticipated negative partner response and self-efficacy, indicating that women who anticipated a less negative reaction from partner or had greater self-efficacy were more assertive about condom and contraceptive use. Initiation assertiveness had 22% explained variance, Refusal had 29%, and Pregnancy-STD Prevention Assertiveness had 51% of its variance explained by the predictors.

Study 3

For Study 3, the items of the SAS were revised to make them appropriate for a seventh-grade reading level. This was done to examine SAS characteristics in a community-based sample. The objectives of Study 3 were to confirm the initial factor structure derived from a university-based sample on the newly worded scale and to further assess construct validity in a more diverse population that is at risk for STDs. We examined construct validity in part by determining the relationship of SAS subscales to separate self-report measures of initiation, refusal, and pregnancy—STD prevention behaviors. We hypothesized that there would be a significant positive relationship between SAS subscale scores and the corresponding report of behavior. In addition, condom self-efficacy (the individual’s certainty that she will be able to ensure that condoms are used during sex), and stage of change for condom use (her readiness to adopt consistent use of condoms) were measured. We hypothesized that these measures would be positively correlated with the Pregnancy-STD Prevention subscale. Construct validity was further assessed by a replication of the structural equation model tested in Study 2 on the community sample of Study 3.

Method

Participants

The participants in this study were recruited as part of a larger study of predictors of HIV-risking sexual behaviors in women. Recruitment focused on (a) women who had previously participated in a local community study of heterosexual transmission of HIV, (b) women who were currently matriculated at the college of continuing education that serves reentry students, and (c) women who responded to advertisements in newspapers and on television or fliers at hospitals and community health clinics.

To be included in the study, women were required to have had at least one of the following: (a) two or more sexual partners in the past 5 years, (b) an injection drug-using sexual partner, or (c) a sexual partner in the past 5 years who had had other sexual partners. Women who were currently trying to conceive were excluded from participation. Participants were offered $5 for completing the survey and the opportunity to enter a bonus drawing for an additional $250. Seventy-five women who had previously participated in a different local community study of heterosexual transmission of HIV agreed to participate in Study 3. In addition, 752 surveys were requested and mailed out as a result of the other two recruitment strategies. Of these 752 surveys, 639 were returned, resulting in a response rate of 85%. Participants were 187 women recruited from the College of Continuing Education and 452 who recruited from other sources. A total of 714 completed surveys were returned by women with a mean age of 31.1 years (SD = 10.0 years). Level of educational achievement for the sample ranged from less than an eighth-grade education to graduate work. The 714 women recruited for this study had not participated in any of the previous studies reported here and thus provided an independent population labeled Sample 5.

Measures

SAS: We reworded each of the 18 items in the SAS developed in Study 1 by using the following criteria: (a) The main clause of the sentence was first, with any conditional clause following (e.g., “I ask my partner to touch my genitals if I want to”); (b) The main clause of each item was worded in the present tense (see previous example); (c) Items were made gender neutral to avoid heterosexist bias (e.g., “If

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3 The complete model including all final parameter estimates and their standard errors is available from Patricia J. Morokoff upon request.
a partner wanted me to perform oral sex on him, and I didn’t want to, I would refuse” was changed to “I refuse to put my mouth on my partner’s genitals if I don’t want to, even if my partner insists”; (d) the phrase put my mouth on my partner’s genitals was substituted for oral sex (see previous example); (e) the term sex was substituted for intercourse; and (6) easier to read words were substituted for more difficult to read words (e.g., begin was substituted for initiate; for a more thorough discussion of item revisions, see Quina, Rose, et al., 1997). In addition, because the larger study focused on HIV risk reduction, the items in the Pregnancy–STD Prevention subscale were changed to ask about condom or latex barrier use. The instructions provided to respondents for completion of the SAS were as follows: “Think about a person you usually have sex with or someone you used to have sex with regularly. Answer the next questions with that person in mind. Think about what you would do even if you have not done some of these things.”

Length of time in the relationship. Respondents indicated how long they had been involved with their most recent sex partner.

Self-reported initiation behavior. To measure the proportion of time the participant initiated sexual behavior, we asked participants to respond to the following question: “In the past 6 months, if I wanted to have sex with a partner, I have: never asked, asked less than half the time, asked more than half the time, asked every time.”

Self-reported refusal behavior. To measure the proportion of time the participant refused unwanted sexual behavior, we asked participants to respond to the following question: “In the past 6 months, when a partner wanted to have sex with me that I didn’t want, I: never refused, refused less than half the time, refused more than half the time, refused every time.”

Condom self-efficacy. Participants rated “How sure are you that a condom or latex barrier would be used for sex in these situations?” for six situations such as “when I am really turned on.” Responses were rated on a 5-point scale with response alternatives labeled not at all sure, a little sure, kind of sure, fairly sure, and very sure. Scale scores were derived by averaging scores on the six items. Cronbach’s alpha for the 6 items was .88.

Stage of change for condom use. Two items were used to assess stage of change for condom use: (a) “Do you use condoms (rubbers)?” (never; sometimes, but not always; started always using 1 month ago; started always using 3–5 months ago; started always using 6 months ago or longer); (b) “Do you plan to start always using condoms when you have sex?” (no; yes, within the next 6 months; yes, within the next 30 days; already always use condoms). These items were derived from the stages of change model (Prochaska & DiClemente, 1986) as applied to condom use (Prochaska, Redding, Harlow, Rossi, & Velicer, 1994; Prochaska, Velicer, et al., 1994). We calculated a score from the average of the two items. Cronbach’s alpha for the two items was .88.

Sexual experience. Participants rated on a 5-point scale from 1 (never) to 5 (very often) how often six diverse sexual experiences had occurred such as “Sex while someone else watched,” “Sex with more than one person at a time,” and “took pictures or films of sex.” Diverse sexual experiences were assessed in this sample rather than kissing–manual contact and intercourse (as in Study 2, conducted on adolescents and young adults) to ensure a range of response in an older sample. A score was derived by averaging responses to each item. Cronbach’s alpha for the scale based on data from Sample 5 was .73.

Anticipated negative partner response. The anticipation of negative partner reaction to condom use was assessed with a modification of the scale used in Study 2. It included two items that had a coefficient alpha of .67. One item was “If I ask my partner to use a condom or latex barrier during sex, my partner would: go along happily, go along but not be happy, not go along, or not go along and be upset with me for even asking.” The other item was “If I refuse to have sex with my partner without a condom or latex barrier my partner would: accept my decision, accept my decision but be upset, insist that I do it anyway, and force me to do it anyway.” High scores indicated greater anticipation of a negative partner reaction. These items were adapted from Harlow et al. (1993).

Sexual self-acceptance. Participants rated six items such as “Sex is a positive part of my life” on a 5-point scale with items labeled never, rarely, sometimes, most of the time, and always. The items had a Cronbach’s alpha of .86. This scale was an adaptation of the Psychosexual Attitudes Scale reported by Harlow et al. (1993).

Sexual victimization scale. This scale was a modification of the Adult Sexual Victimization Scale described in Study 2. Items were modified for a lower reading level. Factor analysis of Sample 5 data revealed the same two factors, Sexual Coercion and Sexual Abuse, that we found in Study 2. One item was added to this scale to measure adolescent sexual victimization (“When you were 14 to 18 years old, were you ever forced to have sex with anyone?”). Response alternatives were no; yes, once; yes, a few times; and yes, many times. This item formed its own factor.

Procedure

A 260-item survey including questions not analyzed for this study was mailed to women who returned signed informed-consent forms. A postage-paid envelope was enclosed for the survey to be returned by mail. Surveys were confidential but not anonymous.

Results and Discussion

Subscales for initiation, refusal, and pregnancy–STD prevention were constructed as in Studies 1 and 2 and indicated good internal consistency: Cronbach’s alpha for initiation was .77; for refusal, .74; for pregnancy–STD prevention, .82; and for the total score, .82.

Stability of Factor Subscales

Because the overall factor structure of the SAS had been established on a university-based population, we decided to assess the stability of individual factor subscales across university and community samples. To determine whether the factor structure (i.e., integrity) of the subscales was stable across the combined university-based Sample 3 and 4 (n = 503) of Study 2 and the community-based Sample 5 (n = 714), we conducted a multiple sample confirmatory (maximum likelihood) factor analysis on these data by using the EQS program (Bentler, 1989). Sample 5 data were different from data from Sample 3 + 4 in two important ways. First, the study population was substantially different, with Sample 3 + 4, as discussed, drawing on a college student population and Sample 5 drawing on an older community population. Second, the scale items themselves were rewritten for use with Sample 5, as described above.

Several multiple sample analyses were conducted on the data sets for each subscale. Each of the analyses varied with respect to degree and type of restrictions placed on the factor structure (see Table 3). We identified two item pairs in each subscale for which the item content was conceptually similar and allowed...
across the data sets of Sample 3 + 4 and Sample 5. Factor
indicate that the factor variance was not significantly different
indexes (see comparative fit index and RMSR in Table 3) and
analyses that fit the best (Analyses 1+4) had good overall fit
for the Refusal subscale, the factor loadings and error variances
all parameters were significant at the 
.001 level. The findings
Initiation subscale, all analyses also fit well and had good overall fit
and the factor variances associated with the Initiation subscale
the data was small (RMSR = .04). The compara-
structure and the data was small (RMSR = .04). The compara-

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<td>20</td>
<td>.92</td>
<td>.23</td>
<td>.10</td>
</tr>
</tbody>
</table>

Note. For Sample 3, N = 503; for Sample 4, N = 714. CFI = comparative fit index; RMSR1 = root mean square residual for Sample 3; RMSR2 = root mean square residual for Sample 4; STD = sexually transmitted disease.

For the Refusal subscale, all analyses also fit well and had good overall fit indexes (see Table 3), and all parameters were significant at the \( p < .001 \) level. The findings indicate that the factor loadings and error variances of items and the factor variances associated with the Initiation subscale were not significantly different across data sets from Sample 3 plus 4 and Sample 5.

For the Refusal subscale, all analyses also fit well and had good overall fit indexes (see Table 3), and all parameters were significant at the \( p < .001 \) level. These findings indicate that for the Refusal subscale, the factor loadings and error variances as well as factor variance were not significantly different across data sets. For the Pregnancy–STD Prevention subscale, the two analyses that fit the best (Analyses 1 + 4) had good overall fit indexes (see comparative fit index and RMSR in Table 3) and all parameters were significant at the \( p < .001 \) level. Findings indicate that the factor variance was not significantly different across the data sets of Sample 3 + 4 and Sample 5. Factor loadings and error variances show some differences across data sets. This may be because there was a substantial change in them to correlate in these and subsequent analyses. For the Initiation subscale, all analyses fit well and had good overall fit indexes (see comparative fit index and RMSR in Table 3) and all parameters were significant at the \( p < .001 \) level. The findings indicate that the factor loadings and error variances of items and the factor variances associated with the Initiation subscale were not significantly different across data sets from Sample 3 plus 4 and Sample 5.

Construct Validity

Structural equation model. To provide the most rigorous test of the reliability of findings from the SEM conducted in Study 2, in this analysis we only included women recruited from the general community. The sample size for this analysis, therefore, was 452. The three sexual assertiveness factors again served as the dependent variables in a multifactor structural equation modeling approach, as in Study 2. The five independent variables were thus sexual experience, condom self-efficacy, sexual self-acceptance, anticipated negative partner response to condoms, and sexual victimization. The chi-square test of the reliability of findings from the SEM conducted in the two studies. Two thirds of the subscale items administered to Sample 3 + 4 asked respondents to report on birth control assertiveness. For Sample 5, all items asked about condom or latex barrier use instead (see the Appendix).
The fit index was .96, which indicated that most of the variation and covariation in the data was explained by the structure, and all factor loadings were significant at the .05 level or better.

The final model for the eight constructs, showing significant correlations among the independent constructs, explained variance for dependent constructs, and standardized path coefficients for significant relationships, is presented in Figure 2. All nonsignificant paths and correlations are omitted from the diagram for ease of presentation. The set of predictors explained moderate to large percentages of variance for Initiation (24%), Refusal (23%), and Pregnancy−STD Prevention Assertiveness (62%), respectively.

Significant paths (standardized sample regression coefficients) related Initiation to both sexual experience and sexual self-acceptance. These findings confirm the relationship of sexual experience with initiation found in Study 2 and add a new predictor in sexual self-acceptance, which assesses positive attitudes toward one's own sexuality. Significant predictors of Refusal were condom self-efficacy and anticipated negative partner response (indicating, as found in Study 2, that a more negative expected partner reaction was associated with lower assertiveness and that greater self-efficacy was associated with more assertiveness in refusing unwanted sex). Results from the SEM in Study 2 were again replicated for Pregnancy−STD Prevention, indicating a significant positive path for condom self-efficacy and a significant negative path for anticipated negative partner response (again, with a more negative reaction associated with lower assertiveness).

Sexual victimization did not directly predict any of the Sexual Assertiveness subscales. However, it was significantly correlated with all four predictor variables, suggesting the possibility of an indirect effect on sexual assertiveness through the mediation of these other constructs.

Relationship of SAS subscales to other measures. We determined the relationship between SAS subscales and measures of initiation behavior, refusal behavior, and pregnancy−STD prevention behavior. Correlation coefficients (see Table 4) indicate that each self-report measure of behavior was significantly correlated with the corresponding SAS subscale. Two additional measures of condom use were correlated with the SAS subscales: condom self-efficacy and stage of change for condom use. Results indicated that condom self-efficacy was moderately correlated with the Refusal subscale and strongly correlated with the Pregnancy−STD Prevention subscale. Stage of change for condom use was also strongly correlated with the Pregnancy−STD Prevention subscale. Furthermore, the correlation with the corresponding subscale was higher than with any of the other subscales, supporting the construct validity of the subscales. Length of time in the relationship was not significantly correlated with Initiation and Pregnancy−STD Prevention, and correlated only very weakly with Refusal (r = −.09, p < .05). This finding indicates that the longer a respondent had been in a relationship, the less assertive in refusing unwanted sex she was.

Study 4

The purpose of Study 4 was to conduct 6-month and 1-year follow-ups on a random subset of Sample 5 participants from Study 3. Specific objectives of the study were to determine test–

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**Table 4**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Initiation assertiveness</th>
<th>Refusal assertiveness</th>
<th>Pregnancy−STD prevention assertiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation behavior</td>
<td>.38***</td>
<td>.18***</td>
<td>.00</td>
</tr>
<tr>
<td>Refusal behavior</td>
<td>.15***</td>
<td>.33***</td>
<td>.15***</td>
</tr>
<tr>
<td>Pregnancy−STD prevention</td>
<td>.05</td>
<td>.14***</td>
<td>.38***</td>
</tr>
<tr>
<td>Condom self-efficacy</td>
<td>.10**</td>
<td>.28***</td>
<td>.63***</td>
</tr>
<tr>
<td>Stage of change for condom use</td>
<td>−.06</td>
<td>.04</td>
<td>.58***</td>
</tr>
</tbody>
</table>

Note. SAS = Sexual Assertiveness Scale; STD = sexually transmitted disease. **p < .01. ***p < .001.
retest reliabilities at the two times. In addition, we evaluated three alternative scale items for the Refusal subscale. Thus, an additional objective was to evaluate scale characteristics including the new items.

**Method**

**Participants**

The participants in this study consisted of a random subsample of 354 women who returned completed surveys at the 1-year follow-up. The random sample was drawn from a total of 419 women who had returned completed surveys at 1-year or 59% of Sample 5 women who returned completed surveys in Study 3. The partial sample represents a preliminary response to the final wave of data collection from the Sample 4 women. The random subsample was composed of women who were recruited from (a) the college of continuing education that serves reentry students (n = 164) and (b) various other community sources described in Study 3 (n = 190). Participants were offered $10 for completing the survey after 6 months and $15 for completing the survey after 1 year. They also were given the opportunity to enter bonus drawings for an additional $500 and $1,000 for the two time points, respectively.

**Procedure**

Surveys were mailed to participants with a postage-paid envelope in which the surveys were to be returned by mail. In addition, we decided to evaluate three new items for the Refusal subscale because the original subscale oversampled the domain of refusal of oral sex. As a consequence, three new items were included in the survey along with the old scale items. The scale items in the Appendix represent the final version of the scale. Test–retest reliability analyses were conducted on the scale items used in Study 3.

**Results and Discussion**

**Characteristics of the Revised SAS (Administered at 1-Year Follow-Up)**

The six specified items per subscale were consistent with those obtained in previous samples. Subscale and total scale means, standard deviations, and standardized coefficient alphas are provided in Table 5. As can be seen, the results continue to be stable across different study samples. The revised Refusal subscale, however, had a significantly lower mean than the old Refusal subscale, t(355) = 36.13, p < .0001. Because these items sample a broader content domain, we feel they are preferable, and thus the scale items presented in the Appendix include the new items. We also feel the new items represent an improvement in the scale in that lower mean scores will ensure a greater range of response and potential for change following interventions.

**Test–Reetest Reliability**

Reliabilities were calculated between subscale and total scale scores for the three time points. These correlations, based on the original Refusal subscale items, are presented in Table 6. The range of correlation values (from .59 to .77) indicates moderately stable scores on the three sexual assertiveness subscales over 6-month and 1-year time periods.

**General Discussion**

Four studies, examining data from over 1,600 women, were conducted to develop and validate a three-dimensional measure of sexual assertiveness in women. As expected, confirmatory factor analyses indicated that we could measure three distinct factors in sexual assertiveness: Initiation, Refusal, and Pregnancy–STD Prevention. Moreover, the slightly correlated three-factor structure provided an equally good fit to the data across undergraduate student and community samples. All scales demonstrated adequate to high internal reliability across samples, suggesting that they form meaningful, internally consistent composites across groups. The multiple sample confirmatory factor analyses between data sets from Sample 3 + 4 (college women) and Sample 5 (community women) indicated a stable, generalizable structure for the three subscales. This is especially noteworthy given that items were reworded from a college reading level for Sample 4 + 5 to a seventh-grade reading level for Sample 5.

The validity of the subscales was initially demonstrated

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Table 5
**Scale Means, Standard Deviations, and Coefficient Alphas in Study 4**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>M</th>
<th>SD</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation (old items)</td>
<td>22.27</td>
<td>4.85</td>
<td>.82</td>
</tr>
<tr>
<td>Refusal (old items)</td>
<td>24.92</td>
<td>4.39</td>
<td>.79</td>
</tr>
<tr>
<td>Refusal (new items)</td>
<td>16.52</td>
<td>2.78</td>
<td>.80</td>
</tr>
<tr>
<td>Pregnancy–STD prevention</td>
<td>21.63</td>
<td>5.88</td>
<td>.80</td>
</tr>
<tr>
<td>Total scale (old Refusal)</td>
<td>68.82</td>
<td>10.90</td>
<td>.84</td>
</tr>
<tr>
<td>Total scale (new Refusal)</td>
<td>60.62</td>
<td>8.74</td>
<td>.84</td>
</tr>
</tbody>
</table>

**Note.** STD = sexually transmitted disease.

Table 6
**Test–Reetest Correlations for SAS Subscales and Total Scores at Three Times**

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Time 1 and 2</th>
<th>Time 2 and 3</th>
<th>Time 1 and 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiation</td>
<td>.70</td>
<td>.77</td>
<td>.65</td>
</tr>
<tr>
<td>Refusal</td>
<td>.60</td>
<td>.65</td>
<td>.59</td>
</tr>
<tr>
<td>Pregnancy–STD prevention</td>
<td>.66</td>
<td>.70</td>
<td>.59</td>
</tr>
<tr>
<td>Total scale</td>
<td>.71</td>
<td>.78</td>
<td>.69</td>
</tr>
</tbody>
</table>

**Note.** Time 1 = Sample 4 data; Time 2 = 6-month follow-up on Sample 4; Time 3 = 1-year follow-up on Sample 4; SAS = Sexual Assertiveness Scale; STD = sexually transmitted disease.
through significant shared variance with measures of self-assessed global sexual assertiveness and general assertiveness in Study 1. Construct validity was also demonstrated in Study 3 through the finding of significant relationships between SAS subscales and predicted constructs. Measures of Initiation, Refusal, and Pregnancy–STD Prevention behaviors in the past 6 months were moderately correlated with the corresponding SAS subscale and less so with other subscales. Both condom self-efficacy and stage of change for condom use were strongly correlated with Pregnancy–STD Prevention assertiveness.

Social desirability was moderately related to Refusal and Pregnancy–STD Prevention but not Initiation. This is plausible because it has traditionally been considered more socially appropriate for women to refuse sex than to initiate sex. It should be recognized, however, that a respondent may attempt to present herself in a socially desirable manner. These considerations further emphasize the fact that this scale does not represent a measure of behavior or of ability to engage in behaviors. Rather it reflects the respondent's perception of her behaviors and attitudes. The interrelationships of self-reported sexual assertiveness, social desirability, and other intrapersonal variables demand further exploration.

Furthermore, a network of predictors of sexual assertiveness has been established in this set of studies. An SEM was tested on two independent samples. Participants in the two samples had markedly different characteristics, one younger group having been drawn from a college population, the other, on average 10 years older, having been drawn from community sources with the requirement that they be at risk for HIV. Despite differences, the structures applied to the two populations produced very similar results. Of seven significant paths in the SEM of Study 2, five were replicated in the SEM on the independent sample of Study 3. These findings lead to a high degree of confidence in the validity of these relationships.

A very reliable result (found in both SEMs plus the regression analysis) was that the greater a woman's previous sexual experience, the greater her self-reported ability to initiate sex. This makes sense in that women who are more sexually experienced are likely to have had more experience initiating sex, to feel more confident about sex, and, therefore, to initiate more. The additional assessment of sexual self-acceptance in Study 3 adds to our understanding of initiation assertiveness. Again, a positive attitude about one's sexuality, based on endorsement of beliefs that one's sexuality is meaningful and that one has some control over that sexuality, appears to be associated with greater assertiveness in initiating sex.

Another very reliable result (found in all three samples of Studies 2 and 3) was that anticipation of a negative reaction from a partner was associated with less assertiveness in refusing unwanted sex. Anticipated negative partner response was also a significant predictor of lower Pregnancy–STD Prevention Assertiveness in both SEMs. Thus it appears that partners have a significant influence over women's perceived ability to assert the key behaviors necessary for sexual health: refusal of unwanted sex and pregnancy–STD prevention. In addition, in both SEMs we found that self-efficacy (for AIDS-preventive behaviors in Study 2 and for condom use in Study 3) was associated with greater self-report of ability to refuse unwanted sex and with Pregnancy–STD Prevention Assertiveness. These findings suggest that a woman's self-efficacy about condom use is related to her ability to refuse a sexual encounter with or without condoms.

Adolescent and adult sexual victimization were found to be consistently related to all other predictors of sexual assertiveness although not always directly to sexual assertiveness itself. Sexual victimization was negatively related to sexual self-acceptance and self-efficacy for condom use. Sexual victimization was positively related to anticipation of a negative partner reaction to assertiveness and strongly related to sexual experience. It might be hypothesized that the experience of sexual victimization predisposes women to the negative effects of the identified predictors of sexual assertiveness. Childhood sexual abuse was not a significant predictor of sexual assertiveness in this study. This relationship requires continued, careful study, however.

The extent to which other relationship characteristics are associated with sexual assertiveness was preliminarily explored. Relationship satisfaction was weakly associated with both Initiation and Refusal, whereas power in the relationship was weakly associated with all three subscales. Contrary to expectations, assertiveness for refusal was lower in relationships of longer lengths. This may be because people tend to accommodate each other more in relationships of longer duration.

Test–retest reliabilities were measured after 6-month and 1-year intervals. Reliabilities were moderately high \((r = .60\) to .78 for 6-month intervals; \(r = .59\) to .69 for the 1-year interval). As would be expected, reliabilities were lower for the 1-year versus 6-month intervals between testings. A factor potentially contributing to the moderate level of test–retest correlations is that some women reported on different relationships at the different testing points. Over the period of 6 months to a year, some of the women changed partners. The correlation between sexual assertiveness and relationship characteristics (including anticipated negative partner response) leaves open the possibility that assertiveness is, in part, determined by the qualities of specific relationships. If so, when a woman enters a new relationship, her assertiveness level may be different than it was in a previous relationship. This question needs to be studied in an investigation in which assertiveness is measured in sequential relationships. More generally, the influence of relationship characteristics on sexual assertiveness requires further study.

Several additional aspects of the SAS require development. First, the present three subscales did not attempt to measure assertiveness with respect to communication of sexual preferences or assertiveness concerning obtaining sexual history information from a partner. Scales to measure these constructs are currently under development. Preliminary data (Deiter & Quina, 1993) suggest that these constructs can be reliably measured and are distinct from the initial three subscales. A measure for an additional aspect of assertiveness, communication of positive feelings, that constitutes the communicative dimension of assertiveness proposed by Christoff and Kelly (1985) has not yet been developed. A further important area for future research involves establishing behavioral validity for all SAS subscales.

Wording was revised and new items were developed for the SAS in Studies 3 and 4. The purpose of the revisions in Study 3 was to improve readability. In Study 4, we made revisions to sample a more representative domain of sexual behaviors for the Refusal subscale. Three original Refusal subscale items on
oral sex were replaced by items concerning refusal of sex and genital touching. Although overall psychometrics of the SAS scale were unchanged by these revisions, mean scores on the revised Refusal subscale were substantially lower than on the earlier version. The lower revised subscale score was probably obtained because it is easier for women to refuse oral sex (which may be perceived as a more deviant or less socially desirable sexual behavior) than to refuse sex or genital touching.

The SAS provides a new tool for understanding women's sexual decision making. Previous scales have addressed only the refusal dimension of assertiveness. The SAS provides a stable measure of initiation, refusal, and pregnancy–STD prevention assertiveness that can be used with a variety of populations. Use of the SAS may help in efforts to predict women's risky sexual behaviors and to develop programs to help women become better able to negotiate the use of condoms with a partner. It is hoped that the SAS will help us to understand and develop women's sexual assertiveness skills.

References


Appendix

Sexual Assertiveness Scale (SAS) for Women

Initiation

1. I begin sex with my partner if I want to. (#85)
2. I let my partner know if I want my partner to touch my genitals. (#81)
3. I wait for my partner to touch my genitals instead of letting my partner know that's what I want. (R) (#96)
4. I wait for my partner to touch my breasts instead of letting my partner know that's what I want. (R) (#92)
5. I let my partner know if I want to have my genitals kissed. (#98)
6. I refuse to have sex if I don't want to, even if my partner insists. (#262)

Refusal

7. I give in and kiss if my partner pressures me, even if I already said no. (R) (#91)
8. I put my mouth on my partner's genitals if my partner wants me to, even if I don't want to. (R) (#87)
9. I refuse to let my partner touch my breasts if I don't want that, even if my partner insists. (#110)
10. I have sex if my partner wants me to, even if I don't want to. (R) (#261)

Pregnancy–STD Prevention

11. If I said no, I won't let my partner touch my genitals even if my partner pressures me. (#262)
12. I refuse to have sex if I don't want to, even if my partner insists. (#263)

Note. Numbers in parentheses after items denote the number of this item in the survey administered at 1-year follow-up in Study 4; R in parentheses after item denotes item was reverse scored.

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