Examining the Psychometric Properties of the Sexual Excitation/Sexual Inhibition Inventory for Women (SESII-W) in a Sample of Lesbian and Bisexual Women

Running Head: Assessing the SESII-W in lesbian/bisexual women

Key words: Sexual excitation, sexual inhibition, dual control model, sexual function, sexual pleasure

Abstract

The Sexual Excitation/Sexual Inhibition Inventory for Women (SESII-W) assesses propensities for sexual excitation (SE) and inhibition (SI). Previous research utilizing the SESII-W included samples comprised exclusively or almost entirely of heterosexual women. The purpose of this study was to examine the psychometric properties of the SESII-W and assess its relation to aspects of sexual function within a sample of lesbian and bisexual women. The sample included 974 self-identified bisexual (n = 733) or lesbian/homosexual (n = 241) women who completed an online survey including items assessing women's sexual behaviors, feelings, and functioning, socio-demographics, and the SESII-W. The sample was split; exploratory factor analyses were conducted on the first half, yielding eight lower-order factors with two higher-order factors. Confirmatory factor analysis was conducted on the second half and suggested reasonable model fit. SI was positively correlated with sexual problems and negatively correlated with sexual pleasure; the correlations were significant, but small. Hierarchical regression analyses were conducted to examine the relationships between SESII-W scores and sexual problems/sexual pleasure, controlling for age, relationship duration, and relationship status. Four lower-order factors predicted reports of sexual problems. Findings indicate the SESII-W has similar psychometric properties among sexual minority women as it does among heterosexual women.

Introduction

The dual control model posits that sexual arousal and response stem from a balance of inhibitory and excitatory mechanisms present in the central nervous system and that sexual excitation (SE) and sexual inhibition (SI) are independent processes (Bancroft & Janssen, 2000). An assumption of the model is that individuals vary in their propensities for SE and SI and in their responses to excitatory and inhibitory stimuli. Inhibition has been conceptualized as an adaptation that, in most cases, helps individuals avoid risky sexual behaviors (e.g., unprotected sex; Bancroft, 1999), although high levels of SI have been linked to sexual problems (e.g., erectile problems; Bancroft & Janssen, 2001). The model suggests that individuals who are low on SI and high on SE tendencies will be more likely to engage in risk sexual behaviors. Conversely, those low on SE and high on SI may be more inclined to develop sexual problems. A number of studies, conducted with samples of both men and women, have provided support for these hypotheses (Bancroft, Carnes, & Janssen, 2005a; Bancroft, Carnes, Janssen, Goodrich, & Long, 2005b; Bancroft, Graham, Janssen, & Sanders, 2009; Bancroft & Janssen, 2001; Sanders, Graham, & Milhausen, 2008a). Risky sexual behaviors and sexual problems both have significant physical, psychological and relational consequences. Application of the dual control model could be useful in addressing such concerns by providing conceptual insight into how an individual's propensities for SE and SI influence her/his sexual behaviors and experiences.

Initial research assessing the dual control model has mainly focused on men (Bancroft, 1999; Bancroft et al., 2005a; Bancroft et al., 2005c; Bancroft et al., 2000; Bancroft, Janssen, Strong, Carnes, Goodrich, & Long, 2004; Bancroft, Janssen, Strong, Carnes, & Long, 2003; Janssen et al., 2002a; 2002b); however, the SIS/SES scales were adapted for use in women and the psychometric properties of the SIS/SES measure were compared across women and men

(Carpenter, Janssen, Graham, Vorst, & Wicherts, 2008). The internal validity, test-retest validity, and factor solutions were similar for women and men. All higher-order factors loaded similarly for both men and women; however, there were differences at the item-level which suggested the presence of gender differences for SE and SI. Gender differences may be evident due to less variability in women's inhibition scores (Bancroft, 1999), potentially resulting from women having better developed inhibitory mechanisms (Bancroft, 1999; Bjorklund & Kipp, 1996). Women may have less variability in their SI scores because they perceive concerns about relationship problems and partner relations differently from men and the influence of these factors on sexual arousal may also be different in women and men (Ellison, 2000; The Working Group for a New View of Women's Sexual Problems, 2001).

Graham, Sanders, Milhausen, and McBride (2004) developed the Sexual Excitation/Sexual Inhibition Inventory for Women (SESII-W) in order to address the need for a scale specifically designed for women. In a sample primarily comprised of heterosexual women, Graham, Sanders, and Milhausen (2006) assessed the psychometric properties of the measure, resulting in eight lower-order and two higher-order (SE and SI) factors. Five lower-order factors loaded on SE: Arousability; Sexual Power Dynamics; Smell; Partner Characteristics; and Setting. Three lower-order factors loaded on SI: (1) Relationship Importance; (2) Arousal Contingency; and (3) Concerns about Sexual Function. The SESII-W factor structure differed from that of the original SIS/SES scale in that only one higher-order factor relating to SI emerged compared to two SI factors on the original SIS/SES (Bancroft et al., 2009; Janssen et al., 2002a). Additionally, the SESII-W has several lower-order factors not found on the SIS/SES (e.g., Partner Characteristics, Relationship Importance, Arousal Contingency) and there are differences in items that appear on the same factor in the SIS/SES and SESII-W (e.g., the item "*I think about*

sex a lot when I am bored" appears on the Arousability factor of the SIS/SES, but not on the SESII-W, whereas the item "*Fantasizing about sex can quickly get me sexually excited*" appears on the Arousability factor of the SESII-W but not on the SIS/SES). Internal validity and test-retest reliability scores for the SESII-W were similar to those of the SIS/SES scales.

The SESII-W has been utilized to examine the associations between SE, SI, and sexual function (Sanders et al., 2008a) and sexual risk taking (Turchik, Garske, Probst, & Irvin, 2010). Sanders et al. (2008a) examined predictors of sexual problems in a sample of heterosexual women (N = 540). Participants were asked, ''*to what degree, if any, would you say you experience sexual problems*?'' and were provided with six responses ranging from 1 (*not at all*) to 6 (*very strongly*). Women were also asked specific questions relevant to: (1) difficulty becoming or staying sexually aroused, (2) difficulty in reaching orgasm, and (3) low sexual interest. Response options included: never, less than half the time, about half the time, more than half the time, and all the time. Findings indicated that the strongest predictor of reporting sexual problems was higher Arousal Contingency (a lower-order SI factor) scores. The items on the Arousal Contingency subscale assess women's potential for arousal to be inhibited or easily disrupted by situational factors; example items include: "*Unless things are 'just right,' it is difficult for me to become sexually aroused*" and "*When I am sexually aroused, the slightest thing can turn me off*." Higher scores indicate the tendency for arousal to be easily inhibited. Turchik et al. (2010) examined SE and SI in combination with measures of substance use, social desirability, social threat, and personality traits as predictors of sexual risk taking among men and women. Interestingly, their results suggested that lower SI and higher SE were significant predictors of sexual risk taking for women, but not men. Similarly, in a sample of African-American adolescent women, Wood et al. (2013) found that a greater propensity for sexual

Arousability (a lower-order SE factor) was associated with increased risk for contracting HIV and sexually transmitted infections (STIs).

Previous research suggests that heterosexual and lesbian and bisexual women exhibit different personality traits (Lippa, 2005; Lippa, 2008) as well as differences in sex drive, with bisexual women being slightly, but significantly higher in sex drive compared to heterosexual or lesbian women (Lippa, 2007). Additionally, differences in sociosexuality (i.e., the extent to which individuals are open to engaging in casual or uncommitted sexual relationships [Simpson & Gangestad, 1991]) and risk taking behaviors (e.g., inconsistent condom use, greater number of sexual partners, consuming alcohol or using drugs prior to engagement in sexual activity) have been documented across sexual orientation groups (Koh, Gomez, Shade, & Rowley, 2005; Mercer et al., 2007; Schmitt, 2005), with behaviorally bisexual women generally scoring higher on sociosexuality and engaging in more risk-taking behaviors than the heterosexual and lesbian women. Thus, conflating heterosexual and lesbian and bisexual samples by assuming that measures of SE and SI designed using samples of primarily heterosexual women would hold together similarly across sexual orientation groups may be inappropriate. In fact, Bloemendaal and Laan (2015) recommended that future validation work related to the SESII-W include more diverse samples of women across sexual orientation. Currently, research examining SE and SI among samples of sexual minority women is scant. There are no studies, of which we are aware, which have assessed SE and SI among lesbian women, bisexual women, or both. As such, the purpose of the current study was to examine SE and SI constructs within a sample of sexual minority women specifically examining the factor structure of the SESII-W within this sample. We also assessed the relationship of SE and SI to sexual pleasure and sexual problems among sexual minority women.

Method

Participants

Eligibility criteria included being 18 years of age or older, being able to read English, and having access to a computer and the Internet. Data were collected as part of a larger study of women's well-being and sexuality involving 4,426 women with recruitment efforts to oversample sexual minority women. The SESII-W was not part of the original questionnaire, but was added after data collection had already begun; therefore, early participants did not receive these questions as part of their survey questionnaire. As such, 1,849 participants (41.78%) were removed because they were not asked the main items of interest regarding SE and SI. An additional 1,366 (58.30%) were removed from the sample because they identified as heterosexual/straight and therefore did not meet the inclusion criteria for the current analyses restricted to those identifying as either bisexual or lesbian/homosexual.

A few steps were taken in order to enhance data quality. First, data were examined for "rapid submissions" using the date and time each submission was made and looking for similar or identical responses; no rapid submissions were encountered. Additionally, the final sample was limited to those who completed the questionnaire through the last item which stated "*Sometimes people fill out questionnaires but do not take them seriously and just fill in answers that may not be accurate. We do not want to use these in the study. Please choose one of the statements below*: (1) *I took the survey seriously - use my information in the study or* (2) *I did not answer seriously - throw out my information*." Among those remaining in the sample, 211 (7.3%) were eliminated because they did not answer the question regarding taking the survey seriously and another 26 (0.9%) participants were eliminated because they indicated they had not

taken the survey seriously. Thus, the final sample utilized in these analyses consisted of 974 bisexual and lesbian/homosexually-identified women.

For the purpose of these analyses, the participants were further divided into two subsamples. We randomly divided the bisexual-identified (n = 733) and lesbian/homosexual-identified (n = 241) women to create two groups with equal representation of bisexual and lesbian/homosexual women across the two groups. One of these groups was used for exploratory factor analysis (EFA) and the other was used for confirmatory factor analysis (CFA). We randomly divided the bisexual and lesbian/homosexual-identified women separately so that the proportion of bisexual and lesbian/homosexual-identified women would be the same in each group.

Table 1 contains the demographic characteristics of the full analytic sample. The mean age of the sample was 27.0 (*SD* = 8.2 years; range, 18-62). A majority of the participants identified as white (71.1%, *n* = 693), was employed outside of the home (57.9%, *n* = 559), and reported they were currently in a relationship or married (61.7%, *n* = 61.7). Approximately 75.8% of the sample (*n* = 738) self-identified as bisexual and 24.2% (*n* = 236) indicated they identified as lesbian/homosexual.

Measures

Questions regarding respondents' sexual orientation and the gender of their sexual partners were asked at the beginning of the questionnaire. Women in the analytic sample included those who self-identified as lesbian or bisexual, although they may have had a past or present sexual partner who was male.

Socio-demographic variables. The survey included items assessing socio-demographic variables, including age (*What is your age in years?* [open-ended]), race/ethnicity (*What is your*

race? Pick as many as apply to you.), education level (*What was the highest grade or year of schooling you completed?*), sexual orientation (*Which of the following commonly used terms would you use to best describe your sexual orientation now?*), employment status (*Are you employed at a paid job?*), relationship status (*Are you single, married, living with a partner, separated/divorced, widowed*?), religious affiliation (*Do you consider yourself Protestant, Catholic, Jewish, etc., some other religion, or not religious*?), sexual relationship status, and whether or not women currently had children living at home (*How many children currently live in your household* [open-ended]). The response options for religious affiliation included a list of 13 specific religions to select from, as well as non-denominational, not religious, and some other religion as response choices. Participants who selected a specific religion were collapsed into one category (i.e., some religious affiliation) and compared with the other categories as can be seen in Table 1.

Sexual behaviors and sexual functioning. Women were also asked questions about sexual behaviors that they had engaged in over the past four weeks, as well as about sexual feelings and sexual functioning they experienced during the same time frame based on the Interviewer Ratings of Sexual Function (Bancroft, Lotus & Long, 2003; Graham, Ramos, Bancroft, Maglaya, & Farley, 1995; Sanders, Graham, Bass, & Bancroft, 2001). These items were categorized by the researchers as either relating to sexual pleasure or sexual problems and in order to create composite variables assessing these constructs. The sexual pleasure items included: "*Of the time(s) that you had sexual activity with your partner in the past 4 weeks, how many times*: 1) *was the sexual activity mainly pleasurable and enjoyable?*; 2) *did you feel a pleasant tingling in your genitals?*; 3) *did you enjoy being touched around your genitals (such as by your partner's hand, mouth, or other part of her body)?*; 4) *did you become aroused? (For*

example, just feeling excited or noticing physical changes in your body such as breathing more quickly, heart beating faster, sweating?); 5) *did you feel content and satisfied afterwards (whether or not you had experienced an orgasm)?;* and 6) *did you experience an orgasm?"* The sexual problems items included: "*Of the time(s) that you had sexual activity with your partner in the past 4 weeks, how many times did you*: 1) *feel mainly indifferent (meaning you didn't care one way or the other)?;* 2) *experience unpleasant feelings such as tension or anxiety?;* 3) *experience pain or discomfort as a result of the sexual activity*?; 4) *find that your genital area or vagina was drier than you would have liked*?; and 5) *have difficulty experiencing an orgasm*?"

Several steps were utilized in order to construct the sexual pleasure and sexual problems composite variables from items in the questionnaire. First, participants indicated the frequency with which they engaged in sexual activity during the past four weeks with the following question: "*Over the past 4 weeks, approximately how many times have you engaged in* (1) *sexual activity leading to vaginal sexual intercourse (that is, entry of the penis into vagina intended to give sexual pleasure)?* and (2) *sexual activity with your partner (for example, breast or genital contact or other activity intended to give sexual pleasure) not leading to vaginal intercourse*?" Each individual woman's overall frequency of sexual activity was calculated by summing these two items.

Next, the frequency of each pleasure and problem item was divided by women's summed frequency of engagement in sexual activity (described above) in order to create a proportion of times women experienced the various aspects of sexual function and behavior. For example, if a woman engaged in sexual activity 10 times in the previous four weeks and indicated experiencing an orgasm five times, her proportion for this item would be 0.5 to reflect the times she experienced orgasm out of the total number of times sexual activity occurred. This method

was considered preferable to allow for comparisons across women with varying amount of sexual activity over the past four weeks (compared to simply using the total number of times a woman experienced orgasm (five) in the previous four weeks). The composite sexual pleasure variable was constructed by summing the proportions of the items categorized as sexual pleasure items. Likewise, the sexual problems variable was constructed by summing the proportions of the sexual problem items described above. The same approach to creating the composite variables has been utilized in previous research (Authors, 2012; Authors, 2014). Alpha scores for the latent variables for Sexual Pleasure and Sexual Problems were .92 and .71, respectively

Sexual Excitation/Sexual Inhibition Inventory for Women (SESII-W). The SESII-W is a 36-item measure assessing responses to stimulus situations which are related to SI and SE. Previous research indicated that the SESII-W has eight lower-order factors, which load on two higher-order factors: SE and SI (Graham et al., 2006; Sanders et al., 2008a). Women were asked to respond to each item according to their "*most typical reaction*" or how they thought they might respond if the situation did not apply to them at the time of questionnaire completion. Ratings were made on a four-point Likert scale: (1) "*strongly disagree*," (2) "*disagree*," (3) "*agree*," and (4) "*strongly agree*."

Procedure

Data were collected as part of an online health and sexuality study (the Women's Well-being and Sexuality study) conducted by researchers at The XXX at XXX University. The purpose of the study was described to participants as being "to collect information regarding women's well-being and sexuality, including sexual satisfaction and sexual functioning." Three previous articles have been published from this dataset (Authors, 2012; Authors, 2008; Authors, 2014).

Participants were recruited through advertisements placed in The XXX newsletter, email listservs, including listservs targeting sexual minority women, and by word-of-mouth and online snowball sampling. This sampling technique cast a large net, resulting in participants from across the United States (n = 774) and other countries in which English is the primary language such as the United Kingdom and Australia (n = 200). Specifically, 22.3% (n = 216) reported living in a large city or the surrounding suburban area, 39.4% (n = 382) in a medium city or surrounding area, 23.7% (n = 2.3) in a small city or surrounding area, 9.4% (n = 91) in a small town or not very close to a city, and 5.3% (n = 51) in a rural area. All study protocols were reviewed and approved by the Institutional Review Board Human Subject Committee at XXX University.

The anonymity of the online study meant that the data were free of all identifying information; this was made explicit to all participants on the introductory webpage of the questionnaire as a way of improving data validity. The questionnaire took approximately 30 minutes to complete. Participants were not offered any monetary or other incentive to complete the questionnaire, which discouraged duplicate submissions.

Data Analysis

Means (SD) and frequency distributions were used to describe the full sample and for scores on the SESII-W. First, EFA using a varimax rotation was utilized with half of the sample (*n* = 487) to reduce the SESII-W variables (Tabachnick & Fidell, 2007). Factors were assessed by evaluating Eigen values and a scree plot, with the factor loading criteria set at 0.3, a cut-off point which is low, but acceptable. Items were also assessed for cross-loading utilizing the 0.3 criteria and inter-item correlations were assessed as part of the item removal process (Comrey & Lee, 1992; DeVellis, 2003). Cronbach's alpha was used to assess the reliability of all eight lower-order factors as well as the two higher-order factors.

Previous research has established the reliability and validity of the SESII-W (Graham et al., 2006) and demonstrated associations of SE and SI scores with sexual functioning (Sanders et al., 2008a) in samples of primarily or exclusively heterosexual women. Because our analyses were based on the theoretical dual control framework (Janssen & Bancroft, 2007) and previous research examining SE and SI in primarily heterosexual samples of women (Graham et al., 2006; Sanders et al., 2008), we then conducted CFA to further examine model fit for SE and SI using Mplus on the second half of the sample (n = 485). Compared to EFA which is exploratory in nature, CFA allows specification in testing of theoretical models and constitutes a more powerful statistical technique for examining the validity of the SESII-W. It is important to note that the proposed SE and SI models are identifiable according to the criteria for the two indicator rule (Kline, 2011) and because the models met the following criteria: (1) having more than one latent variable (2) correlations between latent variables, (3) indicators are unifactorial, and (4) two or more indicators per factor and their errors are not correlated.

Analysis of variance (ANOVA) was also conducted to examine mean differences in SE and SI scores across various demographic characteristics. Finally, hierarchical linear regression analyses were conducted to examine the relationship between the SESII-W scores and both sexual pleasure and sexual problems composite variables. Two separate regression models were examined, with sexual pleasure as the outcome variable in one and sexual problems as the outcome variable in the other. Predictor variables included age, relationship duration, and relationship status entered in step one and the eight lower-order SESII-W factors in step 2.

Results

Factor Structure

Exploratory factor analysis. Factor analysis with the first subsample (*n* = 487) yielded an eight-factor solution which paralleled that found in Graham et al. (2006), explaining 53.0% of the variance; 34 out of the 36 items were retained. The two items that did not load on any factors at .3 or higher were: (1) "*Dominating my partner sexually is arousing to me*" (originally on the Sexual Power Dynamics factor) and (2) "*Certain hormonal changes definitely increase my sexual arousal*" (originally on the Arousability factor) (see Table 2 for a list of the items and their corresponding factor loadings). All of the remaining items loaded on their expected factors based on previous research (Graham et al., 2006; Sanders et al., 2008a) at 0.4 or higher, meeting the criteria for acceptable factor loading (Comrey & Lee, 1992; DeVellis, 2003; Tabachnick & Fidell, 2007). An additional factor analysis was conducted with the eight factors, resulting in the emergence of two higher-order factors: SE and SI, which explained 51.4% of the variance. The lower-order factors which loaded on SE included: Arousability, Sexual Power Dynamics, Smell, Partner Characteristics, and Setting. Relationship Importance, Arousal Contingency, and Concerns about Sexual Function loaded on SI (see Table 3 for factor loadings for the higher-order factors). All lower-order factors loaded at 0.4 or higher on either SE or SI.

Table 4 presents the means, *SD*s, and Cronbach's alphas for the eight lower-order factors and the two higher-order factors. The Cronbach's alpha's for the lower-order factors ranged from .54 to .83 and alphas for the higher-order factors were .59 for SE and .60 for SI, all of which fall into an acceptable range (DeVillis, 2003; Nunnally & Bernstein, 1994). Factor loadings found in the current study were consistent (e.g., within .05-.10) with those found in the original validation study (Graham et al, 2006) as well as in subsequent studies (Bloemendaal & Laan, 2015; Milhausen, et al., 2010; Sanders et al., 2008).

Confirmatory factor analysis. We examined the model fit indices for SE and SI to assess whether the models would fit the SESII-W items, utilizing the second half of the sample (n = 485). The models were evaluated at two levels: overall model fit and individual parameters included within the models. Because of limitations with the chi-square likelihood test, researchers have suggested using a number of criteria to determine the fit of the model to the data (e.g., Hoyle, 2000). As such, the following indices were used in addition to the chi-square statistic: (a) the comparative fit index (CFI), with values greater than 0.90 indicating a reasonable fit; (b) the Tucker Lewis Index (TLI), with values greater than 0.90 indicating a reasonable fit; (c) the root mean square error of approximation (RMSEA), with values less than 0.06 indicating a reasonable fit. The SI model fit well according to descriptive fit indices, $\chi^2(62) = 23.14$, $p <$ .01, CFI = 0.95, TLI = 0.96, RMSEA = 0.04. Model fit was not as strong for SE: $\chi^2(45) =$ 131.23, $p < .05$, CFI = 0.90, TLI = 0.92, RMSEA = 0.07. The χ^2, CFI, and TLI values indicated reasonable model fit; however, the RMSEA value of 0.07 was just above the recommended standards for good model fit.

The Lagrange Multiplier (LM) Tests estimated that the model would fit much better if two sets of parameters were allowed to be freely estimated. As a result, it was suggested that the final SE model allowed for adding the covariances of the four pairs of error terms, two corresponding with items from the Arousability factor (i.e., *Seeing an attractive partner's naked body really turns me on*; *Sometimes I am so attracted to someone, I cannot stop myself from becoming sexually aroused*) and two corresponding with items from the Sexual Power Dynamics factor (i.e., *Feeling overpowered in a sexual situation by someone I trust increases my arousal; If a partner is forceful during sex, it reduces my arousal*). These modifications were evaluated for theoretical soundness; we concluded that it was theoretically justifiable to estimate error

covariances for items on the Sexual Power Dynamics factor, but not the Arousability factor. As such, we allowed the error covariances for the two items on the Sexual Power Dynamics factor to freely estimate. After this modification, the model fit for SE improved slightly: $\chi^2(45) = 111.04$, $p < .05$, CFI = 0.95, TLI = 0.94, RMSEA = 0.07. Again, the χ^2, CFI, and TLI values indicated good to reasonable model fit; the RMSEA value improved although still fell just short of recommended standards for good model fit.

Relationship among Factor Scores and Demographic Characteristics

See Table 5 for mean SE and SI scores for all of the socio-demographic characteristics in which there were statistically significant differences in SE or SI.

Age. Age was not significantly correlated with the SE or the SI factors and there were no differences across age categories for both SE ($F = 1.261$, $df = 4$, p = .284) and SI ($F = 1.548$, $df = 4$, $p = .187$).

Race. There were no significant differences in SE ($F = 1.406$, $df = 3$, $p = .240$) or SI ($F = 0.822$, $df = 3$, $p = .482$) across the different racial groups.

Relationship status. There were significant differences in SI and SE scores across relationship status. Women who reported currently dating someone, but not being married or in a serious relationship, had higher SE scores ($F = 9.32$, $df = 2$, $p < .001$) and lower SI scores ($F = 6.15$, $df = 2$, $p = .002$) compared to women who reported being single and not dating anyone or women who were in a relationship or married. Women who reported not currently dating and women who were married/in a relationship did not differ in SE or SI scores.

Sexual relationship status. There were significant differences in SI and SE scores for women with different sexual relationship status. Women who reported being in a non-exclusive sexual relationship reported higher SE scores than women who reported being in either an

exclusive sexual relationship or not being in a current sexual relationship ($F = 17.26$, $df = 2$, $p < .011$). For SI, women who were in a non-exclusive sexual relationship had lower SI scores compared to those in an exclusive sexual relationship or those who reported not being in a current sexual relationship ($F = 66.70$, $df = 2$, $p < .001$). Women who reported being in an exclusive sexual relationship and those not in a current sexual relationship did not differ on SE or SI scores.

Religious affiliation. There were no differences in SI related to religious affiliation ($F = .55$, $df = 3$, $p = .65$); however, women who indicated some type of religious affiliation (e.g., Protestant, Catholic, Jewish, Christian) reported lower SE compared to the remaining response categories (i.e., non-denominational, not religious, and other). There were no significant differences among these latter categories.

Children. There were no differences in SE related to whether women had children living at home or not ($t = .537$, $df = 2087$, $p = .591$). However, women who had children living at home scored higher on SI compared to women who did not have children living at home ($t = 3.43$, $df = 2189$, $p = .001$).

Self-identified sexual orientation. There were no differences in SE ($t = .268$, $df = 648$, $p = .788$) and SI ($t = -.760$, $df = 677$, $p = .448$) scores when comparing women who self-identified as bisexual compared to women who self-identified as lesbian/homosexual.

Correlations among SESII-W Factors and Sexuality Variables

As shown in Table 6, the higher-order SE and SI factors positively correlated with their respective lower-order factors. Additionally, all of the lower-order factors moderately, but significantly, correlated with one another except that Relationship Importance was not significantly correlated with Smell. These findings reinforce the relationships among the lower-

order factors by demonstrating that the lower-order factors, although assessing distinct constructs, are related. Lastly, SI was positively correlated with sexual problems and negatively correlated with sexual pleasure, indicating that higher SI scores were associated with higher levels of sexual problems and lower levels of sexual pleasure. SE was not significantly correlated with sexual problems or sexual pleasure.

Regression Analyses

Regression analyses were conducted with age, relationship duration, and relationship status entered as control variables in step 1 and the eight lower-order factors entered in step 2 as predictor variables. Two separate models were run with the different outcome variables: sexual pleasure and sexual problems. The combination of variables in steps 1 and step 2 were not significant predictors of sexual pleasure ($\Delta R^2 = .023$, $p = .58$). Table 7 presents the standardized beta coefficients for the significant statistical predictors of sexual problems. Age, entered in step 1, was a significant predictor of sexual problems; however, the adjusted R^2 was not significant for step 1 overall ($R^2 = .01$, $p = .19$). The lower-order SESII-W factors were entered in step 2 and four of the eight lower-order factors significantly predicted sexual problems: Relationship Importance, Concerns about Sexual Function, Arousal Contingency, and Partner Characteristics. The adjusted R^2 value associated with the full model indicated that the combination of predictor variables explained 12.9% of the variance in sexual problems, with a significant ΔR^2 of .14 ($p < .001$).

Discussion

These findings provide evidence for the factor structure of the SESII-W within a sample of women who identified as lesbian/homosexual or bisexual, thereby adding support to its use with women of different sexual orientations. The factor structure in the current study was very

similar to that reported in the original SESII-W validation study (Graham et al., 2006) as well as in more recent studies examining the SESII-W factor structure in a Dutch population (Bloemendaal & Laan, 2015) and a German population (Authors, in press). Higher- and lower-order factor loadings were generally similar, or higher, than in Graham et al.'s (2006) study and consistent with other research (e.g., Bloemendaal & Laan; 2015; Milhausen et al., 2010; Sanders et al., 2008). Additionally, factor scores on the SESII-W in the current sample were significantly related to measures of sexual problems in ways predicted by the dual control model (Bancroft et al., 2009). Thus, the applicability of the dual control model and the use of the SESII-W as a measure of propensity for SE and SI in lesbian and bisexual women are supported by our findings.

Factor Structure

Though the factor structure found in the current sample paralleled the one derived in the original validation study (Graham et al., 2006), two items did not load on any factor above .30. These were: "*Dominating my partner sexually is arousing to me*," and "*Certain hormonal changes definitely increase my sexual arousal."* Interestingly, these items also demonstrated modest to low factor loadings, .46 and .19, respectively, in the Dutch validation study (Bloemendaal & Laan, 2015). The inclusion of these two items did not substantially affect the Cronbach's alphas for these two factors and the means of the two items indicated that these items were endorsed by women in our sample. As such, we suggest that both items be retained when using the measure with sexually diverse samples. Perhaps differences in the sample or data collection methodology could account for the minor difference in factor structure. For example, Internet-based data collection was used for the current study, whereas the study by Graham et al. (2006) involved a sample of university staff and students answering a paper-and-pencil

questionnaire. Future research is needed to determine the nature of the differences between these factor structures. However, the fact that the remaining items loaded in the same way across the different subsamples using two different factor analytic techniques in this study in ways that are consistent with those of other published studies suggests that the eight lower-order and two higher-order factors work together in similar ways for women, regardless of self-identified sexual orientation.

The current findings demonstrate the stability of the lower-order factors, as the eight-factor solution was sound and accounted for a 53.0%of the variance. Additionally, findings from the CFA suggest that model fit was reasonable for SI and with a minor modification, fairly reasonable for SE. Graham et al. (2006) discussed utilizing the eight-factor versus two-factor solution, and maintained that it was "better to retain these lower-level factors that might prove theoretically more informative, and stronger predictors of variables of interest, than the higher-order factors" (p. 405). Bloemendaal and Laan (2015) also recommended utilizing the lower-order factors as they found less statistical support for the model when the higher-order factors were used. Furthermore, consistent with previous research (Bloemendaal & Laan, 2015; Graham et al., 2006; Authors, in press), the SESII-W demonstrated acceptable internal consistency for most of the lower-order factors and significant inter-correlations, with the exception of the higher-order factors and two of the lower-order factors (i.e., Sexual Power Dynamics; Partner Characteristics). The failure of these two subscales to evidence significant correlations with other subscales may be the result of their lower internal consistency. Aside from Sexual Power Dynamics and Partner Characteristics, the internal consistency scores for the other lower-order factors were similar to or higher than those reported by Graham et al. (2006). Although the higher-order reliabilities scores were modest to low, they were comparable to Graham et al.

(2006); the current sample's alpha for SI was slightly higher (.60 compared to .55) and the alpha for SE was slightly lower (.59 compared to .70). Additionally, as Graham et al. (2006) noted, the lower-order factors may prove more useful theoretically in future research; researchers may choose these over the higher-order factor scales if reliability for the higher-order factors is lower than would be desirable. Further research could help further elucidate this issue

All of the lower-order factors demonstrated significant, albeit low-level, inter-correlations. All SE lower-order factors were positively correlated with one another and all SI lower-order factors were positively correlated. Low-level inter-subscale correlations indicated that the factors were related, although they measure distinct constructs associated with SE and SI. Lower-order factors on SI correlated positively with the higher-order SI factor and negatively with the higher-order SE factor. Similarly, lower-order SE factors correlated positively with the higher-order SE factor and negatively with the higher-order SI factor. SE and SI higher-order factors were negatively correlated, supporting the conceptual framework of the dual control model.

Although the SI model had reasonably good fit, the SE model did not demonstrate optimal fit. The low factor loadings of two items on the lower-order SI factors, the modest internal consistency scores for some of the lower-order and higher-order factors, and the modest overall fit of SE according to CFA suggest some statistical issues with the SE model. Perhaps the two items on lower-order SE factors that did not load properly (described above) led to a decrement of fit for the overall model. Interestingly, M-Plus did not recommend modifications related to these items. One of the suggested modifications permitted allowing the error terms for two items on the Sexual Power Dynamics factor to correlate. This modification made conceptual sense and resulted in an improved model fit, though still with fit indices which were just below

the recommended standard. However, according to Hu and Bentler (1999), when RMSEA values are close to, or less than, .06 and CFI and TFI are close to, or greater than, .95, the model is reasonably good; our fit indices were within this range. As such, we do not suggest revision of the SESII-W at this time for use with lesbian and bisexual women, but do recommend further assessment of the measure within samples of lesbian and bisexual women. Future studies may lead to refinements that could enhance the measure's utility for lesbian and bisexual women.

The Relationship between SE/SI and Sexual Pleasure and Sexual Problems

Sexual inhibition was significantly correlated with both sexual pleasure (negative) and sexual problems (positive). Specifically, as predicted and consistent with previous research (Sanders et al. 2008a), three lower-order SI factors (Relationship Importance, Concerns about Sexual Function, Arousal Contingency) and one lower-order SE factor (Partner Characteristics) were significant predictors of sexual problems. Although correlations were small, they are consistent with Sanders et al.'s (2008) study in both magnitude and direction. Previous research in men has also demonstrated that a high propensity for SI is associated with a vulnerability to sexual problems (Bancroft & Janssen, 2000; 2001). At the multivariate level, the same factors (Relationship importance, Arousal Contingency, Concerns about Sexual Function, and Partner Characteristics) were all significant predictors of sexual problems, over and above demographic and relationship characteristics that are sometimes associated with sexual function (e.g., age, relationship duration, and relationship status; Sanders et al., 2008a). Again, these findings support the conceptual validity of this measure within the current sample of lesbian and bisexual women.

SE and its lower-order factors were not correlated with either sexual pleasure or sexual problems. In previous studies sexual problems have been more strongly associated with SI than

SE, but ours is the first study that has examined sexual pleasure in relation to these constructs. Although for conceptual reasons we hypothesized that higher SE might be associated with increased sexual pleasure, there was no empirical evidence to support this hypothesis. Our analyses did yield bivariate associations between sexual pleasure and SI and arousal contingency in that both SI and arousal contingency were negatively correlated with sexual pleasure. However, the correlations were quite small and these associations were not retained in the multivariate analysis. This apparent discrepancy certainly warrants further research..

Comparisons across Demographic Characteristics

A strength of the current investigation was the comparison of SE and SI scores across demographic characteristics. When examining excitation and inhibition across demographic characteristics, many of our findings were consistent with previous research. For example, consistent with Graham et al (2006), there were no differences in SE or SI in terms of race and religious affiliation. Relationship status and sexual exclusivity were associated with SE and SI scores in ways that were consistent with, but not identical to, those reported for predominantly heterosexual women (Graham et al., 2006). SI scores appear to have more to do with sexual exclusivity than relationship status, as women who reported being in a non-exclusive sexual relationship tended to report lower SI scores compared to both those in an exclusive sexual relationship and those not in a current sexual relationship. These findings are consistent with the notion that SE and SI reflect traits that influence relationship type and sexual exclusivity, as the dual control model might predict. However, it is also possible that characteristics of the nature of a romantic or sexual relationship influence the extent to which women manifest both SE and SI and therefore impact their scores on the subscales. It is also possible that both processes operate in a transactional fashion throughout the course of relationship formation. Longitudinal research

would be needed to properly examine the mechanisms underlying the associations between sexual and romantic relationships and SE and SI.

Limitations, Strengths, and Future Research

This study contributes to the literature on the validity of the SESII-W, however, several limitations should be acknowledged. First, the current study utilized an online, convenience sample. The sample was limited to women with access to a computer and an Internet connection and to those who were literate and spoke English. Additionally, there were multiple mechanisms for recruitment but participants were not asked to indicate how they learned about the study; because of this, we are unable to specify which recruitment stream brought in each participant. Additionally, we did not collect data on socioeconomic status and thus cannot assess this characteristic when describing our sample. The online format and lack of compensation for participation likely attracted a sample of socially privileged women, possibly more comfortable with sexuality than the general population. As a result, findings from the current study may not be generalizable to all adult lesbian and bisexual women. As with all such studies, the impact of the study protocol (e.g., recruitment, sample characteristics and size; on-line administration, context of the other questions in the full questionnaire) cannot be evaluated.

The alphas for the two higher-order factors and two of the lower-order factors were low. Although we do not suggest that the scale be revised, we do recommend continued use of the measure in other diverse samples of women, with follow-up interviews or focus groups to better understand how lesbian and bisexual women conceptualize these constructs and to determine whether revision is needed.

Future research would benefit from increased diversity in sampling and from continued validation of the SESII-W in samples of heterosexual, bisexual, and lesbian women as well as

other orientations. Future studies should also examine the SE and SI models using CFA, as our data suggested that the fit for SE could be improved. Additionally, relationships among SE, SI, sexual functioning, and sexual risk taking warrant further investigation among samples of sexual minority women. The lack of relationship between SE and its subscales as well as most of the SI subscales and sexual pleasure was unanticipated. Further research should examine the relationship between propensity for sexual excitation and inhibition and the experience of sexual pleasure, in particular utilizing validated measures of pleasure and satisfaction, to determine if the absence of relationships in the current study would be replicated among other samples. Longitudinal research would be particularly beneficial in examining continuity/discontinuity in SESII-W scores over time and assessing the degree to which the SESII-W reflect trait or state propensities (or both).

The current study addressed an important gap in the literature by examining SE and SI among a sample of sexual minority women and providing psychometric information for the SESII-W within this sample. Our findings provide evidence of validation for the SESII-W among a sexually diverse sample of women for researchers wishing to use the measure with mixed samples and/or to make comparisons across groups of women who identify as heterosexual, bisexual, or lesbian.

Despite these limitations, this study had a number of strengths. First, participants were told that the aim of the study was to examine women's well-being and sexuality and the SESII-W questions were not the main focus of the survey. Therefore, participation bias may have been minimized. Additionally, previous research indicates that online data collection techniques are useful in investigating understudied or sensitive issues (Chiasson et al., 2006; Prause & Graham, 2007) and can lead to increased disclosure of sensitive information such as sexual risk taking and

sexual problems compared to other survey methods (Conboy, Domar, & O'Connell, 2001; Granello & Wheaton, 2004; Joinson, 2001). Additionally, this study utilized a large, online, community sample of women diverse in terms of sexual orientation, going beyond a traditional university student sample.

Conclusions

The SESII-W appears to be a reliable and valid measure of propensity for SE and SI among self-identified lesbian/homosexual and bisexual women. The dual control model posits that SE and SI are somewhat opposing constructs, such that a high propensity for sexual inhibition is often associated with a lower propensity for sexual excitation and vice versa (Bancroft et al., 2009; Janssen & Bancroft, 2007). Furthermore, consistent with previous research, scores on the SESII-W were associated with sexual functioning. Specifically, high scores on propensity for sexual inhibition were associated with higher scores for sexual problems. Overall, these findings demonstrate support for the dual control framework as a model of conflicting tensions between excitatory and inhibitory tendencies that influence an individual's sexual response. The study provides additional support regarding the applicability of the Dual Control Model of sexual response to lesbian and bisexual women.

References

Author (in press). Psychometric properties of the Sexual Excitation/Sexual Inhibition Inventory for Women in a German sample. Archives of Sexual Behavior, in press.

Bancroft, J. (1999). Central inhibition of sexual response in the male: A theoretical perspective. *Neuroscience and Biobehavioral Reviews, 23*, 763-784. doi: 10.1016/S0149-7634(99)00019-6

Bancroft, J., Carnes, L., & Janssen, E. (2005a). Unprotected anal intercourse in HIV-positive and HIV-negative gay men: The relevance of sexual arousability, mood, sensation seeking, and erectile problems. *Archives of Sexual Behavior, 34*, 299-305. doi: 10.1007/s10508-005-3118-6

Bancroft, J., Carnes, J., Janssen, E., Goodrich, D., & Long, J. S. (2005b). Erectile and ejaculatory problems in gay and heterosexual men. *Archives of Sexual Behavior, 34*, 285-297. doi: 10.1007/s10508-005-3117-7

Bancroft, J., Graham, C. A., Janssen, E., & Sanders, S. A. (2009). The dual control model: Current status and future directions. *Journal of Sex Research, 46*, 121-142. doi: 10.1080/00224490902747222

Bancroft, J., Herbenick, D., Barnes, T., Hallam-Jones, R., Wylie, K., Janssen, E., & Members of BASRT. (2005c). The relevance of the dual control model to male sexual dysfunction: The Kinsey Institute/BASRT collaborative project. *Sexual and Relationship Therapy, 20*, 13-30. doi: 10.1080/14681990512331298275

Bancroft, J., & Janssen, E. (2000). The dual control model of male sexual response: A theoretical approach to centrally mediated erectile dysfunction. *Neuroscience and Biobehavioral Reviews, 24*, 571-579. doi: 10.1016/S0149-7634(00)00024-5

Bancroft, J., & Janssen, E. (2001). Psychogenic erectile dysfunction in the era of pharmacotherapy: A theoretical approach. In J. Mulcahy (Ed.), *Male sexual function: A guide to clinical management* (pp. 79-89). Totowa, NJ: Humana.

Bancroft, J., Janssen, E., Carnes, L., Strong, D. A., Goodrich, D., & Long, S. J. (2004). Sexual activity and risk taking in young heterosexual men: The relevance of personality factors. *Journal of Sex Research, 41,* 181-192. doi: 10.1080/00224490409552226

Bancroft, J., Janssen, E., Strong, D., Carnes, L., & Long, J. S. (2003). Sexual risk taking in gay men: The relevance of sexual arousability, mood, and sensation seeking. *Archives of Sexual Behavior, 32*, 555-572. doi: 10.1023/A:1026041628364

Bancroft, J., Loftus, J., & Long, J. S. (2003). Distress about sex: A national survey of women in heterosexual relationships. *Archives of Sexual Behavior, 32*, 193-208. doi: 10.1023/A:1023420431760

Birnbaum, M. H. (2004). Human research and data collection via the internet. *Annual Review of Psychology, 55,* 803-832. doi: 10.1146/annurev.psych.55.090902.141601

Bjorklund, D. F., & Kipp, K. (1996). Parental investment theory and gender differences in the evolution of inhibition mechanisms. *Psychological Bulletin, 120,* 163-188. http://dx.doi.org/10.1037/0033-2909.120.2.163

Bloemendaal, L. B. A., & Laan, E. T. M. (2015). The psychometric properties of the Sexual Excitation/Sexual Inhibition Inventory for Women (SESII-W) within a Dutch population. *Journal of Sex Research*. 52, 69-82. doi: 10.1080/00224499.2013.826166

Carpenter, D., Janssen, E., Graham, C. A., Vorst, H., & Wicherts, J. (2008). Women's scores on the sexual inhibition/sexual excitation scales (SIS/SES): Gender similarities and differences. *Journal of Sex Research, 45,* 36-48. doi: 10.1080/00224490701808076

Chiasson, M. A., Parsons, J. T., Tesoriero, J. M., Carballo-Dieguez, A., Hirshfield, S., & Remien, R. H. (2006). HIV behavioral research online. *Journal of Urban Health, 83*(1), 73-85. doi: 10.1007/s11524-005-9008-3

Cohen, J. N., & Byers, E. S. (2013). Beyond lesbian bed death: Enhancing our understanding of the sexuality of sexual-minority women in relationships. *Journal of Sex Research*. doi: 10.1080/00224499.2013.795924

Comrey, A. L., & Lee, H. B. (1992). *A first course in factor analysis*. NJ: Lawrence Erlbaum Associates, Inc., Publishers.

Conboy, L., Domar, A., & O'Connell, E. (2001). Women at mid-life: Symptoms, attitudes, and choices, an internet based survey. *Maturitas, 38*(2), 129-136. doi: 10.1016/S0378-5122(00)00211-5

Devellis, R. F. (2003). *Scale development, theory and applications* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Ellison, C. (2000). *Women's sexualities*. Oakland, CA: New Harbinger.

Graham, C. A., Ramos, R., Bancroft, J., Maglaya, C., & Farley, T. M. M. (1995). The effects of steroidal contraceptives on the well-being and sexuality of women: A double-blind, placebo-controlled, two-centre study of combined and progestogen-only methods. *Contraception, 52*(6), 363-369. doi: 10.1016/0010-7824(95)00226-X

Graham, C. A., Sanders, S. A., & Milhausen, R. R. (2006). The Sexual Excitation and Sexual Inhibition Inventory for Women: Psychometric properties. *Archives of Sexual Behavior, 35*, 397-410. doi: 10.1007/s10508-006-9041-7

Graham, C. A., Sanders, S. A., Milhausen, R. R., & McBride, K. R. (2004). Turning on and turning off: A focus group study of the factors that affect women's sexual arousal. *Archives of Sexual Behavior, 33*, 527-538. doi: 10.1023/B:ASEB.0000044737.62561.fd

Granello, D. H., & Wheaton, J. E. (2004). Online data collection: Strategies for research. *Journal of Counseling & Development, 82*, 387-393. doi: 10.1002/j.1556-6678.2004.tb00325.x

Hu, L., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55. doi: 10.1080/10705519909540118

Janssen, E., Vorst, H., Finn, P., & Bancroft, J. (2002a). The sexual inhibition (SIS) and sexual excitation (SES) scales: I. Measuring sexual inhibition and excitation proneness in men. *Journal of Sex Research, 39,* 114-126. doi: 10.1080/00224490209552130

Janssen, E., Vorst, H., Finn, P., & Bancroft, J. (2002b). The Sexual Inhibition (SIS) and Sexual Excitation (SES) Scales: II. Predicting psychophysiological response patterns. *Journal of Sex Research, 39,* 127-132. doi: 10.1080/00224490209552131

Janssen, E, & Bancroft, J. (2007). The Dual Control Model: The role of sexual inhibition and excitation in sexual arousal and behavior. In E. Janssen (Ed.), *The psychophysiology of sex* (pp. 197-222). Bloomington, IN: Indiana University Press.

Joinson, A. N. (2001). Self-disclosure in computer-mediated communication: The role of self-awareness and visual anonymity. *European Journal of Social Psychology, 31*, 177-192. doi: 10.1002/ejsp.36

Kline, R.B. (2011). *Principles and practice of structural equation modeling* (3rd. ed.). The Guilford Press, New York, NY.

Koh, A. S., Gomez, C. A., Shade, S., & Rowley, E. (2005). Sexual risk factors among self-identified lesbians, bisexual women, and heterosexual women accessing primary care settings. *Sexually Transmitted Diseases, 32*(9), 563-569.

Lippa, R. (2005). Sexual orientation and personality. *Annual Review of Sex Research, 16*, 119-153. doi: 10.1080/10532528.2005.10559831

Lippa, R. (2007). The relation between sex drive and sexual attraction to men and women: A cross-national study of heterosexual, bisexual and homosexual men and women. *Archives of Sexual Behavior, 36*, 209-222. doi: 10.1007/s10508-006-9146-z

Lippa, R. (2008). Sex differences and sexual orientation differences in personality: Findings from the BBC internet survey. *Archives of Sexual Behavior, 37,* 173-187. doi: 10.1007/s10508-007-9267-z

Mercer, C. H., Bailey, J. V., Johnson, A. M., Erens, B., Wellings, K., Fenton, K. A., & Copas, A. J. (2007). Women who report having sex with women: British national probability data on prevalence, sexual behaviors, and health outcomes. *American Journal of Public Health, 97*, 1126-1133. doi: 10.2105/AJPH.2006.086439

Milhausen, R. R., Graham, C. A., Sanders, S. A., Yarber, W. L., & Maitland, S. B. (2010). Validation of the Sexual Excitation/Sexual Inhibition Inventory for Women and Men. *Archives of Sexual Behavior, 39,* 1091-1104. doi: 10.1007/s10508-009-9554-y

Nunnally, J. C., & Berstein, I. H. (1994). *Psychometric theory* (3rd ed.). NY: McGraw-Hill.

Prause, N., & Graham, C. A. (2007). Asexuality: Classification and characterization. *Archives of Sexual Behavior, 36*, 341-356. doi: 10.1007/s10508-006-9142-3

Sanders, S. A., Graham, C. A., Bass, J. L., & Bancroft, J. (2001). A prospective study of the effects of oral contraceptives on sexuality and well-being and their relationship to discontinuation. *Contraception, 64,* 51-58. doi: 10.1016/S0010-7824(01)00218-9

Sanders, S. A., Graham, C. A., & Milhausen, R. R. (2008a). Predicting sexual problems in women: The relevance of sexual excitation and sexual inhibition. *Archives of Sexual Behavior, 37,* 241-251. doi: 10.1007/s10508-007-9235-7

Sanders, S. A., Graham, C. A., & Milhausen, R. R. (2008b). Sexual orientation and SESII-W. Unpublished raw data.

Schmitt, D. P. (2005). Sociosexuality from Argentina to Zimbabwe: A 48-nation study of sex, culture, and strategies of human mating. *Behavioral and Brain Sciences, 28,* 247-311. http://dx.doi.org/10.1017/S0140525X05000051

Simpson, J. A., & Gangestad, S. W. (1991). Individual differences in sociosexuality: Evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology, 60,* 870-883. http://dx.doi.org/10.1037/0022-3514.60.6.870

Tabachnick, B. G., & Fidell, L. S. (2007). *Experimental designs using ANOVA*. KY: Cengage Learning.

The Working Group for a New View of Women's Sexual problems. (2001). A new view of women's sexual problems. In E. Kaschak, & L. Tiefer (Eds.), *A new view of women's sexual problems* (pp. 1-8). NY: Haworth Press.

Turchik, J. A., Garske, J. P., Probst, D. R., & Irvin, C. R. (2009). Personality, sexuality, and substance use as predictors of sexual risk taking in college students. *Journal of Sex Research, 46,* 1-9. doi: 10.1080/00224490903161621

Wood, J. R., Milhausen, R. R., Sales, J. M., Graham, C. A., Sanders, S. A., DiClemente, R. J., & Wingood, G. M. (2013). Arousability as a predictor of sexual risk behaviours in African-American adolescent women. *Sexual Health, 10*, 160-165. http://dx.doi.org/10.1071/SH12055