

The Effects of Similarity in Sexual Excitation, Inhibition, and Mood on Sexual Arousal Problems and Sexual Satisfaction in Newlywed Couples

Amy D. Lykins, PhD,* Erick Janssen, PhD,[†] Sarah Newhouse, BA,[†] Julia R. Heiman, PhD,[†] and Eshkol Rafaeli, PhD[‡]

*Department of Psychology, University of New England, Armidale, NSW, Australia; [†]The Kinsey Institute for Research in Sex, Gender, and Reproduction, Bloomington, IN, USA; [‡]Bar-Ilan University, Ramat-Gan, Israel

DOI: 10.1111/j.1743-6109.2012.02698.x

ABSTRACT

Introduction. Despite the importance of sexuality for romantic relationships, there has been little research attention to individual differences and dyadic variables, including couple similarity, and their association with sexual problems and satisfaction.

Aim. The current study examined the effects of the propensity for sexual inhibition and sexual excitation scales (SIS/SES) and the effects of different mood states on sexuality (Mood and Sexuality Questionnaire [MSQ]), at both the individual and the dyad level, on sexual arousal problems and sexual satisfaction.

Methods. Similarity in SIS/SES and MSQ was measured in a nonclinical sample of 35 newlywed couples and operationally defined as the within-couple, z-transformed correlations between the two partners' item responses.

Main Outcome Measures. Sexual arousal problems were assessed using self-report measures (Demographic and Sexual History Questionnaire) and focused on the past 3 months. Sexual satisfaction was assessed using the Global Measure of Sexual Satisfaction.

Results. Regression analyses revealed that greater similarity in the effects of anxiety and stress on sexuality was associated with more reported sexual arousal problems of wives. In contrast, the husbands' sexual arousal problems were related only to their own higher SIS1 scores. Higher SES scores predicted lower sexual satisfaction for both husbands and wives. Wives who reported strong positive mood effects on their sexuality indicated greater sexual satisfaction, while husbands who were more similar to their wives in the effect of positive moods on sexuality indicated greater sexual satisfaction.

Conclusions. The findings show that, above and beyond one's own sexual propensities, similarity in various aspects of sexuality predicts sexual problems (more so in women) and sexual satisfaction (in both men and women). **Lykins AD, Janssen E, Newhouse S, Heiman JR, and Rafaeli E. The effects of similarity in sexual excitation, inhibition, and mood on sexual arousal problems and sexual satisfaction in newlywed couples. J Sex Med** **,**,**_**.

Key Words. Sexual Arousal Problems; Sexual Satisfaction; Sexual Function; Mood; Couples; Romantic Relationships

Introduction

A growing body of research supports the presence of individual differences in propensities for sexual desire and arousal, and has found these to be relevant to various aspects of sexual functioning and behavior. Two characteristics that have received a great deal of attention are the propensities for sexual inhibition and excitation and how these relate to sexual functioning in men and

women. A number of studies using the Sexual Inhibition/Sexual Excitation Scales (SIS/SES) have revealed large within-sex differences in the propensity for sexual excitation and inhibition [1]. Sexual inhibition has proven relevant to risky sexual behavior and, in both clinical [2] and nonclinical [3,4] samples, to sexual functioning. The propensity for sexual excitation has been found to be more specifically related to men's and women's general sexual responsiveness and desire level [5–7].

In addition to sexual excitation and inhibition, individual differences in how mood impacts sexual interest and response have also been reported and found to be associated with behavioral outcomes [8,9]. For example, the tendency to experience increased sexual interest or response during negative mood states has been linked to erectile functioning [3], sexual compulsivity [10], and risky sexual behavior [8,11].

Although our knowledge of the role of individual differences and their associations with sexual functioning and decision-making has improved, this knowledge is still largely limited to the level of the individual. Surprisingly little research has been conducted at the level of the dyad, despite the obvious importance of examining these constructs as they relate to couples and their sexual relationship. Sexual partners, be it spouses or other long-term partners, bring different and unique sexual propensities and desires into their relationship. A focus on the couple thus brings to the fore issues of similarity and compatibility in propensities such as sexual inhibition and excitation, as well as in how stress, daily hassles, and more minor fluctuations in mood impact a couple's relationship (e.g., sexual satisfaction, development, and maintenance of sexual problems). Though similarity and compatibility are not identical concepts, given the wealth of literature which has shown partner similarity to predict relationship length and satisfaction, it seems reasonable to posit that similarity in sexual attributes is closely related and relevant to compatibility. A lack of compatibility may present itself in situations in which shared stressors decrease sexual interest and responsiveness in one spouse, while they may not influence (or even increase) desire in the other, potentially contributing to low sexual satisfaction and/or sexual problems in the couple.

Aims

The current article starts from the premise that individual differences in sexual excitation and inhibition, and in the effects of mood on sexuality, interact within a couple and contribute to the prediction of their sexual satisfaction, as well as of the presence of sexual problems within their relationship. Although treatments exist for many sexual dysfunctions, their (long-term) effectiveness varies. This underscores the need for continued research on variables that may have predictive value, including those that relate to a couple's sexual compatibility and the ability to cope with

and adjust to changes in sexual desire and responsiveness caused by various factors over the course of their relationship.

The present study sought to investigate the association between individual differences in sexual excitation and inhibition proneness, and in how mood affects sexual interest and response, on the overall sexual satisfaction and presence/development of sexual arousal problems in first-time newlywed couples. Although future studies could explore individual difference variables in other groups, including more established relationships and clinical samples, we focused on first-time newlywed couples as these individuals are more likely to still be discovering their own as well as their partner's sexual response patterns, and how these are influenced by various mood states, as they have not had the length or degree of exposure to their partners that those in more established relationships have had. Similarity in such processes could well fluctuate and change over the course of a relationship, and we believe that it is important to examine couples in the early stages of their relationships to establish a baseline from which future comparisons and predictions, to be tested in clinical and other samples, can be made.

Methods

Participants

A total of 35 couples were recruited using marriage licenses filed in Monroe County in Indiana. Couples were sent letters inviting them to participate in the study and those who expressed interest in participating were screened for eligibility criteria in a telephone interview. To be eligible to participate, the couple had to have been married within the past year and to be nulliparous; in addition, they had to be between 18 and 40 years of age, and this had to be their first marriage. The study protocol was approved by the University's Institutional Review Board prior to commencement of recruitment.

Wives averaged 25.4 (standard deviation [SD] = 3.4) years of age and husbands averaged 25.8 (SD = 3.0) years of age. The majority of participants (94% of husbands and 100% of wives) were Caucasian. One husband was Hispanic and another selected the category "other" to indicate his ethnicity. The majority of husbands (91%) and wives (94%) had attended college, technical school, or university, but most (71% of husbands and 59% of wives) were no longer in university. Most husbands (82%) and wives (66%) indicated

that they were employed full time. Twelve percent of husbands and 25% of wives were working part time, and 6% of husbands and 9% of wives were unemployed.

Main Outcome Measures

Demographics and Sexual History Questionnaire (DSHQ)

This questionnaire covers demographic information as well as questions about sexual behavior and function [8,11,12]. Included in the DSHQ are questions about the occurrence of erectile problems (for men) and arousal problems (for women). For men, the question used was “In the past 3 months, have you experienced any difficulty in obtaining or maintaining a full erection during sexual activity?” For women, it was “In the past 3 months, have you experienced any difficulties becoming or staying sexually aroused?” The possible answers to this question were “never,” “occasionally,” “less than half the time,” and “most of the time.”

SIS/SES

This 45-item questionnaire measures the propensity for sexual excitation (SES; range 20–80), the propensity for sexual inhibition due to the threat of “performance failure” (SIS1; range 14–56), and the propensity for sexual inhibition due to the threat of “performance consequences” (SIS2; range 11–44) [5]. Similarity in sexual excitation and inhibition was operationalized by calculating three within-couple correlations using the total number of items for each scale (SES: 20 items, with alphas of 0.85 and 0.86 for men and women in this sample, respectively; SIS1: 14 items, with alphas of 0.88 and 0.58 for men and women in this sample, respectively; and SIS2: 11 items, with alphas of 0.72 and 0.66 for men and women in this sample, respectively).

Mood and Sexuality Questionnaire Revised (MSQ-R)

This measure builds on the MSQ [8,13] and asks respondents to indicate what happens to various aspects of their sexuality when sad/depressed, anxious/stressed, or happy/cheerful (10 items per mood). An example item is as follows: “When I feel anxious or stressed I feel like initiating sex with my partner . . .”; response choices ranged from one (“much more than usual”) to five (“much less than usual”). Factor analyses, using all 30 items, identified a total of eight factors, including ones

relevant to the effects of mood on desire, regrettable behavior, and masturbation [14]. For the present study, we used the following three factors as they were most relevant to sexual desire and dyadic processes: the effect of anxiety/stress on sexual desire (MSQ-Anxious/Stressed; three items, with alphas of 0.73 and 0.79 for men and women in this sample, respectively), the effect of sadness/depression on sexual desire (MSQ-Sad/Depressed; three items, with alphas of 0.77 and 0.85 for men and women in this sample, respectively), and the effect of positive mood on sexuality (MSQ-Happy/Cheerful; six items, with alphas of 0.74 and 0.73 for men and women in this sample, respectively). For the purpose of the current study, similarity correlations were based on all 10 items for each mood state [14].

Dyadic Adjustment Scale (DAS)

This questionnaire measures relationship quality and satisfaction [15,16]. It provides a global score and four subscale scores for agreement, or consensus, in 13 areas (e.g., handling family finances), affectional expression (e.g., showing love), dyadic cohesion (number and frequency of shared activities), and satisfaction (with alphas of 0.89 and 0.90 for men and women in this sample, respectively). The total score was used for this study.

Global Measure of Sexual Satisfaction

This five-item scale measures sexual satisfaction by asking subjects to rate their sexual relationship on five dimensions: satisfying–unsatisfying, good–bad, pleasant–unpleasant, positive–negative, and valuable–worthless (with alphas of 0.89 and 0.81 for men and women in this sample, respectively) [17].

Results

Sample Characteristics: Variability in Satisfaction and Sexual Problems

All analyses were conducted with SPSS 18.0 (SPSS Inc., Chicago, IL, USA). Average total scores on the DAS were 115.4 and 115.2 for men and women, respectively. Spanier [15] reported for married couples a mean score of 114.8 (SD = 7.8) and for divorced couples a mean score of 70.7 (SD = 23.8). Our sample thus scored in the normal range, though with substantial variability: Women’s scores ranged from 75 to 136 and men’s scores ranged from 90 to 140.

A total of 16% of wives indicated not to have experienced any sexual arousal problems during

the past 3 months, 78% experienced problems occasionally, and 6% experienced problems with becoming or staying sexually aroused more often than that, but still less than half the time. Seventy-three percent of the husbands experienced no erection problems during the past 3 months, 21% experienced such problems occasionally, and 6% reported difficulties obtaining or maintaining a full erection more regularly, but still less than half the time. Thus, although our sample consisted of relatively young, newlywed couples, a substantial proportion reported at least some problems with sexual arousal some of the time.

Relationship Between SIS/SES and MSQ and Sexual Arousal Problems

As a first step in exploring the association between partner similarity and self-reported sexual problems, we calculated Pearson product-moment correlations between SIS/SES and MSQ scores and self-reported presence of sexual arousal problems for men and women (see Table 1 for all correlations). Strong and significant correlations were found for SIS1 and sexual problems for both women, $r = 0.46$ ($P < 0.01$), and men, $r = 0.59$ ($P < 0.001$); this suggests that persons who experience greater sexual inhibition due to concerns about performance failure tend to report greater difficulty with sexual functioning. Also, for men, the correlation between SIS2 and sexual problems approached significance, $r = 0.33$ ($P = 0.06$).

Table 1 Correlations between SIS/SES and MSQ and sexual problems and satisfaction

	Sexual arousal problems*		Sexual satisfaction	
	Women	Men	Women	Men
SIS/SES scores				
SES	0.02	0.15	-0.16	-0.48 ^a
SIS1	0.46 ^a	0.59 ^a	-0.38 ^a	0.22
SIS2	0.16	0.33 ^b	0.02	0.00
SIS/SES similarity				
SES	-0.21	0.05	0.17	0.19
SIS1	-0.42 ^a	-0.17	0.37 ^a	0.15
SIS2	-0.38 ^a	-0.19	0.12	0.13
MSQ scores				
Anxious/stressed	-0.16	0.00	0.07	0.50 ^a
Sad/depressed	-0.13	0.00	0.20	0.52 ^a
Happy/cheerful	-0.06	-0.02	0.48 ^a	-0.20
MSQ similarity				
Anxious/stressed	0.32 ^b	-0.17	0.21	0.23
Sad/depressed	0.27	0.11	0.09	0.28
Happy/cheerful	0.03	0.11	0.30 ^b	0.42 ^a

Note: ^a $P < 0.05$, ^b $P < 0.10$

*Erection problems in men; sexual arousal problems in women
MSQ = Mood and Sexuality Questionnaire; SIS/SES = Sexual Inhibition/
Sexual Excitation Scales

Next, within-couple correlations were computed for the SIS/SES and MSQ. These correlations were then standardized using z-transformations (cf. [18]) to create similarity indices for each scale. We calculated the associations between these similarity indices and both the women's and men's self-reported sexual arousal problems (see Table 1). Partner similarity on SIS1 and SIS2 was negatively correlated with the wives' sexual arousal problems, $r = -0.42$ ($P < 0.02$) and $r = -0.38$ ($P < 0.04$), respectively, suggesting that if both partners respond similarly to inhibition due to threat of performance failure or consequences (both experiencing either lower or higher inhibition resulting in a positive correlation), women's self-reported sexual arousal problems are lower. In contrast, similarity in scores on the MSQ-Anxious/Stressed items was positively correlated (at a level approaching significance) with sexual arousal problems for women, $r = 0.32$ ($P = 0.08$). None of these correlations were significant for the husbands.

To explore the relative contribution of the five variables for which correlations were significant or marginally significant (see Table 1), we entered them in two multiple regression analyses, run separately for husbands and wives, with all variables entered in a single step. The regression analysis for wives was significant ($P < 0.02$) and explained 31% of the variance. Similarity in MSQ-Anxious/Stress scores was the only significant predictor ($\beta = 0.41$, $t = 2.53$, $P < 0.02$), indicating that, if all other independent variables are constant, the more similar spouses were in how anxiety and stress impact their sexuality, the more likely wives were to report problems with sexual arousal. In addition, a trend was found for similarity in SIS1 ($\beta = -0.35$, $t = -1.83$, $P < 0.08$), indicating that, if all other independent variables are constant, greater similarity in SIS1 was associated with a reduced likelihood that wives reported arousal problems. For men, the regression model was also significant ($P < 0.02$) and explained 28% of the variance. Only the husbands' own SIS1 scores predicted erectile problems ($\beta = 0.56$, $t = 2.79$, $P < 0.02$).

Relationship Between SIS/SES and MSQ and Sexual Satisfaction

We examined the association between individual SIS/SES and MSQ scores, couple similarity on these constructs, and sexual satisfaction (see Table 1). A negative correlation was found between the wives' own SIS1 scores and sexual

satisfaction, $r = -0.38$ ($P = 0.03$), which suggests that higher propensity for sexual inhibition due to performance failure was associated with lower sexual satisfaction for the wives in the sample. In addition, the wives' scores on MSQ-Happy/Cheerful were positively correlated with sexual satisfaction, $r = 0.48$ ($P < 0.01$). Finally, the similarity in the effects of feeling happy or cheerful on sexuality was positively (if marginally) associated with sexual satisfaction for the wives ($r = 0.30$, $P < 0.10$). A negative correlation was found between the husbands' own scores on SES and sexual satisfaction, $r = -0.48$ ($P < 0.05$), suggesting that higher propensity for sexual excitation was associated with lower sexual satisfaction for the husbands. In addition, husbands' sexual satisfaction was positively correlated with their own scores on MSQ-Anxious/Stressed, $r = 0.50$ ($P < 0.05$), with their scores on MSQ-Sad/Depressed, $r = 0.52$ ($P < 0.05$), and with couples' similarity on MSQ-Happy/Cheerful, $r = 0.42$ ($P < 0.05$).

Using the seven variables for which correlations were significant or marginally significant (see Table 1), we again ran two regression analyses, this time with sexual satisfaction as the dependent variable. The regression analysis for wives was significant ($P < 0.001$) and explained 46% of the variance. Wives' scores on SES ($\beta = -0.35$, $t = 2.36$, $P < 0.02$) and MSQ-Happy/Cheerful ($\beta = 0.50$, $t = 3.68$, $P < 0.002$) significantly predicted their sexual satisfaction. In addition, a trend was found for the role of similarity in the MSQ-Happy/Cheerful scores ($\beta = 0.26$, $t = 1.82$, $P < 0.09$). The regression analysis for husbands was also significant ($P < 0.003$) and explained 55% of the variance. Husbands' scores on SES ($\beta = -0.32$, $t = 2.44$, $P < 0.03$) and MSQ-Anxiety/Stressed ($\beta = 0.35$, $t = 2.22$, $P < 0.04$) significantly predicted their sexual satisfaction. A marginally significant effect was also found for MSQ-Happy/Cheerful scores ($\beta = 0.24$, $t = 1.80$, $P < 0.09$). In addition, a significant effect was found for similarity between spouses in MSQ-Happy/Cheerful scores ($\beta = 0.30$, $t = 2.30$, $P < 0.04$).

Discussion

The current study is the first to examine the relevance of propensities for sexual inhibition, sexual excitation, and different mood states to sexual arousal problems and sexual satisfaction at both the individual and the dyadic level in married couples. For both husbands and wives, these sexu-

ality variables were significantly related to important aspects of sexual functioning and satisfaction, both in terms of the individual's own scores on these measures (as has been shown in previous research), as well as the degree of similarity found in the couple on these different variables.

Although the sample was nonclinical, relatively young, and recently married, the individual's SIS1 scores were positively correlated with sexual arousal problems for both husbands and wives. SIS1 has been defined as inhibition due to threat of performance failure (cf. [4]) and has been found, in both this and other studies, to be associated with sexual functioning (see [1] for a review). SIS2 (inhibition due to the threat of performance consequences) was also positively correlated with sexual arousal problems for the husbands, a relationship that has been found in previous research (e.g., [4]). Partner similarity was significantly correlated with sexual arousal problems for the wives but not the husbands. The more similar the couple was on SIS1 and SIS2, the fewer reported problems with arousal for the women. Thus, if both partners are either high or low on sexual inhibition, her sexual arousal functioning is not impacted. It is only when there is a sexual inhibition mismatch that sexual arousal problems tend to occur in women. However, partner similarity in the effects of anxiety and stress on sexuality was found to be associated with more sexual arousal problems. This may mean that while anxiety and stress negatively impact sexuality in both spouses, they are more likely to have a negative effect on sexual functioning in wives. For the husbands, sexual arousal problems were not significantly correlated with any of the similarity variables under investigation.

In predicting sexual arousal problems, regression analyses showed the strongest effect for MSQ-Anxious/Stressed scores for wives (with a trend for their own SIS1 scores to be predictive of arousal problems). For husbands, only their own SIS1 scores predicted erectile problems. These findings suggest that self-reported arousal problems are less about sexual similarity for men and more about their own functioning, whereas for women self-reported arousal problems seem to have less to do with their own functioning and more to do with the sexual similarity of the couple.

The sexuality trait variables were also examined for how they related to sexual satisfaction. For the wives, correlations were found between sexual satisfaction and MSQ-Happy/Cheerful, and a trend was found for partner similarity on the same. For husbands, sexual satisfaction was correlated SES

scores and MSQ-Anxious/Stressed and MSQ-Sad/Depressed scores. Regression analyses showed that, for the wives, SES was the most predictive of sexual satisfaction: The higher the SES scores, the lower their satisfaction with sex. Thus, even though lower sexual inhibition was associated with higher sexual satisfaction for women at the univariate level, her propensity for sexual excitation was a more prominent, and negative, predictor of her satisfaction in her sexual relationship. Scores on the MSQ-Happy/Cheerful were marginally predictive of sexual satisfaction for the wives in this sample. Taken together with the results of the correlational analyses, it appears that wives for whom the experience of sexual desire tends to increase when they feel happy or cheerful report greater sexual satisfaction in their relationships. The same appears likely to be true for women's sexual satisfaction when she and her partner are similar in the effect of positive mood states on their respective sexual interest.

Similarly, husbands' SES scores predicted their sexual satisfaction. As in wives, high sexual excitation was associated with low sexual satisfaction. What this seemingly paradoxical finding may suggest is that for individuals who are more easily sexually excitable, actual satisfaction from sexual encounters may be transient, perhaps because they are left still desiring more from those encounters or possibly because they more quickly desire additional sexual activity than their partners. It is also possible, and future studies could explore this in more depth, that individuals with a low propensity for sexual excitation are more likely to be sexually satisfied because their expectations and sexual needs are less strong.

MSQ-Anxious/Stressed scores were also found to predict sexual satisfaction for the husbands, pointing to another difference between husbands and wives in this study. It appears that for women, the effects of positive mood on their own desire levels were most important in determining sexual satisfaction. For men, however, sexual satisfaction appears to be related to how negative mood (anxiety and stress, specifically) affects their own sexual desire. Thus, men who experience either no change or even increased sexual desire when feeling anxious or stressed seem to have higher satisfaction in their sexual relationships.

Lastly, similarity between spouses in how positive mood influences sexuality was also associated with sexual satisfaction. Thus, these findings suggest that couples who are more similar in how positive mood influences their sexuality (e.g., by increasing desire in both) are more likely to experience

higher levels of sexual satisfaction. This relationship was found for both husbands and wives but appeared to be stronger for the men.

Some limitations of the current study need to be acknowledged. The couples in our study were relatively young and early in their relationships, which limits the generalizability of the results. The general personality literature suggests that the relative importance of similarity may fluctuate during the course of the relationship [19], so it would be interesting to see whether the same holds true for sexuality variables. It would also be worth examining whether these fluctuations impact men and women differently, as we have observed interesting sex differences even in the newlywed couples in this study. The sample size obtained was somewhat small, which also may limit the generalizability of the results. Second, although good variability was observed in self-reported sexual satisfaction, there was less variability in reported sexual arousal problems, making the sample slightly more homogeneous than might otherwise be expected. A broader sample of sexual problems could also be used in future studies, including desire and orgasm problems, though sexual arousal issues can be viewed as good indicators of sexual functioning especially in young couples. Third, future studies could explore the role of relationship duration, a variable that was not examined in the current study. Although the sample included only first-time newlyweds, the length of time the couples may have had a romantic and/or sexual relationship before they were married can be expected to vary, and this could have an impact on couple similarity. Third, the similarity indices for the MSQ-R were based on all 10 items relevant to a mood state, instead of on the use of subscales (some of which only include three items). Although this decision was made to avoid the use of correlations based on only a handful of items, it somewhat complicates the comparison of similarity and individual spouses' scores, which were based on subscales. Finally, the measure used to assess sexual excitation and inhibition propensities was originally developed for men [4,5]. Although it has been validated for use in women [20], it might be worthwhile to explore the impact of couple similarity using The Sexual Excitation/Sexual Inhibition Inventory for Women [21] in future studies and to compare the findings.

Conclusions

To our knowledge, this is the first study to explore couple similarity in various sexual variables and

their relevance to self-reported sexual arousal problems and satisfaction. Our findings are preliminary but suggest that even beyond one's own sexual propensities, similarity on these characteristics predicts sexual arousal problems (more so in women) and sexual satisfaction (in both men and women). Future studies could build on the current study while addressing some of its limitations. A cross-sectional or even longitudinal design would allow for comparisons with older and longer-married couples, which could determine whether the observed relationships among these variables tend to stay constant or fluctuate during the course of the relationships, and in what manner these fluctuations might occur.

Acknowledgment

We would like to thank the Faculty Research Support Program at Indiana University who provided funding for this research.

Corresponding Author: Amy Lykins, PhD, Department of Psychology, University of New England, Armidale, New South Wales 2350, Australia. Tel: +61 2 6773-5014; Fax: +61 (2) 6773 3820; E-mail: alykins@une.edu.au

Conflict of Interest: None.

Statement of Authorship

Category 1

(a) Conception and Design

Erick Janssen; Sarah Newhouse; Eshkol Rafaeli; Julia R. Heiman

(b) Acquisition of Data

Erick Janssen; Sarah Newhouse; Eshkol Rafaeli; Julia R. Heiman

(c) Analysis and Interpretation of Data

Amy D. Lykins; Erick Janssen; Sarah Newhouse; Eshkol Rafaeli; Julia R. Heiman

Category 2

(a) Drafting the Article

Amy D. Lykins; Erick Janssen; Julia R. Heiman

(b) Revising It for Intellectual Content

Amy D. Lykins; Erick Janssen; Sarah Newhouse; Eshkol Rafaeli; Julia R. Heiman

Category 3

(a) Final Approval of the Completed Article

Amy D. Lykins; Erick Janssen; Sarah Newhouse; Eshkol Rafaeli; Julia R. Heiman

References

- Bancroft J, Graham C, Janssen E, Sanders S. The dual control model: Current status and future directions. *Annu Rev Sex Res* 2009;46:121-42.
- Bancroft J, Herbenick D, Barnes T, Hallam-Jones R, Wylie K, Janssen E, Members of BASRT. The relevance of the dual control model to male sexual dysfunction: The Kinsey Institute/BASRT collaborative project. *Sex Relat Ther* 2005; 20:13-30.
- Bancroft J, Carnes L, Janssen E, Goodrich D, Long JS. Erectile and ejaculatory problems in gay and heterosexual men. *Arch Sex Behav* 2005;34:285-97.
- Janssen E, Vorst H, Finn P, Bancroft J. The Sexual Inhibition (SIS) and Sexual Excitation (SES) Scales: II. Predicting psychophysiological response patterns. *J Sex Res* 2002;39: 127-32.
- Janssen E, Vorst H, Finn P, Bancroft J. The Sexual Inhibition (SIS) and Sexual Excitation (SES) Scales: I. Measuring sexual inhibition and excitation proneness in men. *J Sex Res* 2002;39:114-26.
- Prause N, Janssen E, Hetrick WP. Attention and emotional responses to sexual stimuli and their relationship to sexual desire. *Arch Sex Behav* 2008;37:934-49.
- Winters J, Christoff K, Gorzalka BB. Dysregulated sexuality and high sexual desire: Distinct constructs? *Arch Sex Behav* 2010;39:1029-43.
- Bancroft J, Janssen E, Strong D, Carnes L, Vukadinovic Z, Long JS. The relation between mood and sexuality in heterosexual men. *Arch Sex Behav* 2003;32:217-30.
- Lykins AD, Janssen E, Graham CA. The relationship between negative mood and sexuality in heterosexual college women and men. *J Sex Res* 2006;43:136-43.
- Bancroft J, Vukadinovic Z. Sexual addiction, sexual compulsivity, sexual impulsivity, or what? Toward a theoretical model. *J Sex Res* 2004;41:225-34.
- Bancroft J, Janssen E, Carnes L, Goodrich D, Strong D, Long JS. Sexual activity and risk taking in young heterosexual men: The relevance of sexual arousability, mood and sensation seeking. *J Sex Res* 2004;41:181-92.
- Janssen E, Goodrich D, Petrocelli J, Bancroft J. Psychophysiological response patterns and risky sexual behavior in heterosexual and homosexual men. *Arch Sex Behav* 2009;38: 538-50.
- Bancroft J, Janssen E, Strong D, Vukadinovic Z. The relation between mood and sexuality in gay men. *Arch Sex Behav* 2003;32:231-42.
- Janssen E, Macapagal K, Mustanski B. Individual differences in the effects of mood on sexuality: The Revised Mood and Sexuality Questionnaire (MSQ-R). 2012. In preparation.
- Spanier GB. Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *J Marriage Fam* 1976;38:15-28.
- Spanier GB, Thompson L. A confirmatory analysis of the dyadic adjustment scale. *J Marriage Fam* 1982;44:731-8.
- Lawrence KA, Byers ES. Sexual satisfaction in long-term heterosexual relationships: The interpersonal exchange model of sexual satisfaction. *Pers Relatsh* 1995;2:267-85.
- Gonzaga GC, Campos B, Bradbury T. Similarity, convergence, and relationship satisfaction in dating and married couples. *J Pers Soc Psychol* 2007;93:34-48.
- Shiota MN, Levenson RW. Birds of a feather don't always fly farthest: Similarity in Big Five Personality predicts more negative marital satisfaction trajectories in long-term marriages. *Psychol Aging* 2007;22:666-75.
- Carpenter D, Janssen E, Graham C, Vorst H, Wicherts J. Women's scores on the Sexual Excitation/Sexual Inhibition Scales (SIS/SES): Gender similarities and differences. *J Sex Res* 2008;45:36-48.
- Graham CA, Sanders SA, Milhausen RR. The sexual excitation and sexual inhibition inventory for women: Psychometric properties. *Arch Sex Behav* 2006;35:397-410.