Body Concerns In and Out of the Bedroom: Implications for Sexual Pleasure and Problems

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ABSTRACT

Objectification theory (Fredrickson & Roberts, 1997) proposes that body image concerns impair sexual function and satisfaction. The present study was designed to test whether *body shame* was related to sexual problems and pleasure among heterosexual men and women (N = 320). Using structural equation modeling, we tested whether adult men and women's body shame was linked to greater sexual problems (lower sexual arousability and ability to reach orgasm) and less pleasure from physical intimacy. Although women were significantly more likely to report appearance concerns than men across sexual and nonsexual contexts, appearance concerns were positively related to both men and women's sexual problems. The relationship between body shame and sexual pleasure and problems was mediated by *sexual self-consciousness* during physical intimacy. Men and women's body shame was related to greater sexual self-consciousness, which in turn predicted lower sexual pleasure and sexual arousability. Results persisted controlling for relationship status and age. Being in a relationship was associated with less sexual self-consciousness and less orgasm difficulty for men and women. Although some paths were significantly stronger for women than for men, results largely supported the proposition that body concerns negatively affect sexual pleasure and promote sexual problems for both men and women. Findings were discussed in terms of objectification theory and the increased cultural emphasis on physical appearance.

KEYWORDS: body image; gender; sexuality; shame; sexual arousal; objectification theory; sexual self-consciousness; Internet research.

INTRODUCTION

People spend an enormous amount of time, energy, and money in attempts to improve their physical appearance. This preoccupation with beauty and physical improvement is reflected in popular reality shows, such as "The Swan," "Queer Eye for the Straight Guy," and "Extreme Makeover." In "The Swan" and "Extreme Makeover," women undergo numerous operations to reach these beauty ideals. Correspondingly, the actual prevalence of cosmetic surgery has increased dramatically over the last decade. The number of breast implant surgeries has increased eightfold since 1992 (Duenwald, 2004). In 2001, 1.6 million people injected Botox® into their facial muscles to reverse the signs of aging (McCarthy, 2002). Increases have been seen among men as well as women: since 2002, men's use of Botox® increased 88%, while the number of men who underwent rhinoplasty increased 47% (i.e., "Plastic surgery catching on," 2003).

Although body concerns may be more prevalent among women, recent studies suggest that men have begun to focus more on their appearance. Over the last few decades, men have come under increasing pressure to conform to lean, muscular ideals (for a review, see Frith & Gleeson, 2004). Action figures sold as toys to young boys have become slimmer and more muscular over the last 25 years (Baghurst, Hollander, Nardella, & Haff, 2006; Pope, Olivarda, Gruber, & Borowiecki, 1999), as have male centerfolds between the years 1973 to 1997 (Leit, Pope, & Grey, 2001). The naked male body is displayed more frequently in women's magazines, suggesting that men are increasingly becoming the object of the female gaze (Pope, Olivardia, Boroweicki, & Cohane, 2001). According to St. John (2003), heterosexual men now feel pressure to be "metrosexual," a term recently coined for heterosexual men who devote considerable attention to their physical appearance and clothing. These changes have led some

theorists to argue that, similar to the unrealistically thin female body ideal, the media has created physical ideals for men that are impossible to achieve (Salusso-Deonier, Markee, & Pedersen, 1993). In fact, research suggests that heterosexual men are becoming increasingly dissatisfied with their physical appearance (Cohane & Pope, 2001; Frith & Gleeson, 2004; Zelman, 2005).

Although the societal ideals for men's and women's bodies are different (e.g., men strive to be muscular and lean, while women strive for thinness), the drive to attain the idealized body type may lead both men and women to experience heightened shame regarding their physical appearance. *Shame* refers to the tendency to feel worthless or like a bad person in response to a perceived failure to live up to specific cultural ideals (Lewis, 1992; Tangney, Miller, Flicker, & Barlow, 1996). Even though the current ultra-thin female ideal and the lean muscular male ideal are unrealistic for most people (e.g., Frith & Gleeson, 2004; Noll & Fredrickson, 1998), men and women may experience pressure to achieve this essentially unattainable physical ideal. Their perceived failure to attain this ideal may induce chronic shame over their perceived physical shortcomings as well as anxiety that others will negatively evaluate their bodies. Because of the increased emphasis on physical appearance and its potential implications for producing chronic body shame, the current study was aimed at understanding how body shame affects men's and women's sexual experiences, namely their experiences of sexual pleasure and problems. Throughout this article, we use the term *sexual problems* to refer to difficulty with orgasm and becoming sexually aroused, and low levels of sexual pleasure, while acknowledging that not all men and women would consider these experiences problematic.

Many theorists have argued that body image concerns undermine sexual pleasure (e.g., Fredrickson & Roberts, 1997; Masters & Johnson, 1970). Despite the theorized link between body concerns and sexual satisfaction, few studies have empirically studied this relationship or

the particular mechanisms that might underlie it. The present study examined the relationship between body shame and subjective sexual experiences and whether sexual self-consciousness mediated this relationship (see Fig. 1).

Insert Figure 1 about here

A secondary focus of this article was to explore gender differences in the relationship between body shame and subjective sexual experiences. Although feminist theorists have primarily focused on how body image concerns affect women, we propose that body shame also affects men's sexual experiences.

Body Shame and Objectification Theory

Feminist theorists have repeatedly called attention to the central role of appearance in women's lives (Bartky, 1990; Berger, 1972; de Beauvoir, 1952; Fredrickson & Roberts, 1997; McKinley & Hyde, 1996). According to objectification theory (Fredrickson & Roberts, 1997), the Western sociocultural emphasis on women's beauty leads to *self-objectification*, that is, the tendency to regard one's physical self primarily in terms of appearance and to adopt an observer's perspective on the physical self. Self-objectification has been linked to numerous negative outcomes among women. When women are induced to self-objectify in lab settings (e.g., are asked to wear a bathing suit or are exposed to objectifying media), they report increased shame and anxiety (Calogero, 2004; Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998; Gapinski, Brownell, & LaFrance, 2003; Noll & Fredrickson, 1998; Roberts & Gettman, 2004). Exposure to media images that depict ultra-thin body ideals increases women's reports of body shame and self-consciousness (Gapinski et al., 2003; Noll & Fredrickson, 1998; Roberts & Gettman, 2004). These affective consequences of self-objectification (Gapinski et al., 2003;

McKinley, 1998; Roberts & Gettman, 2004) may impede sexual arousal (Fredrickson & Roberts, 1997).

Given the increasing cultural emphasis on men's appearance, men may also experience the chronic body shame that results from self-objectification. Although Fredrickson et al. (1998) failed to find the effects of self objectification on men, recent studies suggest that, exposure to idealized images of male bodies heighten men's body dissatisfaction (Aubrey, 2006; Baird & Grieve, 2006; Harrison & Cantor, 1997; Labre, 2005; Lavine, Sweeney, & Wagner, 1999; Morry & Staska, 2001). Moreover, men's, as well as women's, self-objectification predicted greater symptoms of disordered eating, body shame, appearance-related reasons for exercise, as well lower global self-esteem and lower body esteem (McKinley, 1998; Morry & Staska, 2001; Strelan & Hargreaves, 2005). Thus, as with women, men's tendency to self objectify may have consequences for psychological well-being and affective evaluations of the body.

Body Shame and Sexual Pleasure and Problems

We propose that this negative affective state of *body shame* may undermine sexual pleasure by increasing cognitive preoccupation with the body in sexual contexts, i.e., by increasing *sexual self-consciousness*. Masters and Johnson (1970) argued that sexual self-consciousness, which they referred to as "spectatoring," impaired men's and women's sexual responsiveness and satisfaction. By directing attention towards one's appearance and away from sexual pleasure, spectatoring was theorized to create erectile dysfunction and premature ejaculation problems for men, and decrease physiological arousal and sexual desire for women (Barlow, 1986; Faith & Schare, 1993; Masters & Johnson, 1970). When people are distracted by concerns about their physical appearance, they may be unable to relax and focus on their own sexual pleasure, which can influence sexual performance (Adams, Haynes, & Brayer, 1985;

Beck, Barlow, Sakheim, & Abrahamson, 1987; Dove & Wiederman, 2000; Elliot & O'Donohue, 1997; Geer & Fuhr, 1976; Meana & Nunnink, 2006; Przybyla & Byrne, 1984). Meana and Nunnink (2006) have proposed that being distracted by one's appearance may have an even stronger effect on men's sexual satisfaction than on women's because body concerns have become so prevalent among women that they have become more accustomed to states of self-objectification.

In the present study, we explore the previously untested links between body shame and sexual problems and pleasure, as well as the mechanisms through which body shame might be linked to sexual problems. Because sexual arousal, the ability to reach orgasm, and sexual pleasure require attention and focus, we focused on these sexual problems and their connection to body concerns among men and women for the present study. Although we believe that the relationship between body concerns and subjective sexual experiences are likely reciprocal, i.e., body concerns affect sexual experiences as much as sexual experiences shape feelings about the body, reciprocal causality cannot be statistically tested in correlational designs. Thus, we tested and hypothesized the direction of causality that was most consistently discussed in the literature, namely that body concerns led to sexual problems. This direction was favored because body concerns emerge in early adolescence (at age 12-14; Byely, Archibald, Graber, & Brooks-Gunn, 2000; Huon & Lim, 1999) before the average age of first sexual experiences (estimates roughly at age 16; Dickson, Paul, Herbison, & Silva, 1998). Because body concerns tend to precede sexual experiences, we argue that the primary sources of body shame exist outside of the bedroom. Thus, we favored this direction of causality.

Although we expand much previous work by our inclusion of male participants, the current study was limited to heterosexuals out of concern that body image concerns would affect

gay and lesbian populations differently than their heterosexual counterparts. According to Fredrickson and Roberts (1997), self-objectification originates from the male gaze and the desire to appeal to romantic partners, because men were seen as the primary consumers of sexualized imagery and perceived to have the highest appearance standards for their potential romantic partners (Siever, 1994). Accordingly gay men and heterosexual women were expected to report the highest level of objectification and body concerns. Biased sampling issues aside (for discussion of such issues, see Hausmann, Mangweth, Walch, Rupp, & Pope, 2004), research comparing gay men to heterosexual men and lesbian women to heterosexual women has supported this conclusion (Robinson & Holden, 1986; Siever, 1994; Yelland & Tiggeman, 2003). Heterosexual men, on average, show the least amount of appearance concerns compared to lesbian women, heterosexual women, and gay men; however, this does not imply that heterosexual men are impervious to appearance concerns.

Hypotheses

The following hypotheses constituted our structural model (see Fig. 1): (1) body shame would be linked to less sexual arousability and pleasure and greater difficulties reaching orgasm, relationships that would be mediated by sexual self-consciousness; (2) women would report greater body concerns and sexual problems than men (i.e., difficulty becoming sexually aroused and an inability to reach orgasm), because women typically report greater body concerns, greater sexual dissatisfaction, less ability to orgasm, and lower sexual arousability than men (Fredrickson & Roberts, 1997; Laumann, Paik, & Rosen, 1999); (3) however, we expected that body concerns would relate to sexual problems and interfere with pleasure for both men and women; (4) finally, we hypothesized that reduced sexual arousability and ability to orgasm would predict lower overall sexual pleasure because the ability to become physically aroused and

to achieve orgasm was proved to be an important component of sexual satisfaction for both men and women (Laumann et al., 1999).

METHOD

Participants

We recruited participants over the Internet by posting the web link to the study on message boards for 150 different U.S. Yahoo groups and 20 e-mail lists for University of Michigan undergraduate and graduate students. Recruitment e-mails indicated that the Internet study was completely anonymous, brief (15-20 minutes long), and included questions regarding approaches to intimate relationships. A total of 320 participants completed the survey on the Internet over a 17-month period (June 2004-September 2005). There were 122 (38%) men and 198 (62%) women. Participants ranged in age from 17 to 71 years (M = 31.01, SD = 12.96), and consisted of 275 White/Caucasian Americans, 13 Asian/Asian Americans, 4 Black/African Americans, 12 Hispanic/Latino Americans, 1 Native Americans, 9 Multiracial Americans, and 6 failed to indicate their racial identity.

Participants were also asked their relationship status: 71% of the sample indicated that they were currently involved in a romantic relationship. Fifty-one percent of the sample indicated having an income below $25,000, 27% between $25,000-50,000, 10% between $50,000-75,000, 7% between $75,000 and $100,000, 4% between $100,000 to $200,000, and 1% indicated an income above $200,000. Participants level of education was as follows: Four percent completed some high school, 8% completed high school, 42% completed some college education, 22% had a college degree, 7% had some post college education, 14% had a master's degree, and 3% had a post master's degree such as a Ph.D. or M.D. For the purposes of this study, only participants

who indicated a heterosexual orientation and having engaged in sexual intercourse were included in the analyses.[1]

Measures

Body shame was assessed with a subscale of the Objectified Body Consciousness Scale (OBC; McKinley & Hyde, 1996). Eight items, rated on a scale of 1 (Strongly Agree) to 7 (Strongly Disagree), assessed the degree to which participants felt that they were a bad person if they did not meet the cultural body ideal. Participants were asked to rate their agreement with statements such as: "When I cannot control my weight, I feel like something must be wrong with me"; "I feel ashamed of myself when I haven't made the effort to look my best"; and "When I'm not exercising enough, I question whether I am a good person." This measure was reliable for both men (α = .82) and women (α = .87).[2] The OBC has shown test-retest reliabilities in the .62 to .81 range and correlated appropriately with measures of body esteem and dieting (Lindberg, Hyde, & McKinley, 2006; McKinley & Hyde, 1996).

Sexual self-consciousness was measured with the Body Image Self-Consciousness 15-item scale developed by Wiederman (2000), which examined self-consciousness during sexual intimacy. Each item was rated on a scale ranging from 1 (Never) to 6 (Always). Example items include: "The idea of having sex without any covers over my body causes me anxiety"; "The worst part of having sex is being nude in front of another person" ; and "During sexual activity, it is (would be) difficult not to think about how unattractive my body is." Higher scores on this measure indicated greater self-consciousness during sexual activities. The scale was reliable for both men (α = .95) and women (α = .95).[2] The sexual self-consciousness scale has shown test-retest reliabilities at .92 and correlated with measures of perceived attractiveness and sexual self-esteem (Wiederman, 2000).

Sexual arousability was assessed with oral/genital stimulation and sexual intercourse subscales from the Sexual Arousability Index (Andersen, Broffitt, Karlsson, & Turnquist, 1989). Participants were instructed to indicate their level of arousability from written sexual scenarios. In the present study, items presented sexual scenarios involving either oral/genital stimulation or sexual intercourse that were rated on a 7-point scale ranging from 1 (adverse effect) to 7 (always causes sexual arousal). An example scenario from the oral/genital stimulation subscale is, "When a loved one stimulates your genitals with mouth and tongue." An example item from the sexual intercourse scenario is, "When you have intercourse with your sexual partner." If the participant did not currently have a sexual partner, they were given written instructions to answer this question about a previous sexual partner. The items in the subscales were averaged to serve as an index of sexual arousability for both men (α = .77) and women (α = .85). The two subscales served as two indicators in the model. The SAI has shown test-retest reliabilities in the .74 to .90 range and correlated as expected with measures of objective and subjective measures of sexual dysfunction, including orgasm difficulties (Andersen et al., 1989).

Difficulty with reaching orgasm was assessed with two questions used by Kiefer, Sanchez, Kalinka, and Ybarra (2006): (1) "How often do you reach orgasm during sexual activity with your partner?" (reverse-coded) and (2) "How often do you have difficulty reaching orgasm with your partner?" These items were based on frequency measures of orgasm difficulty used in Andersen et al. (1989), which had a test-retest reliability of .79. The identical measure has yielded reliabilities at .81 and correlated with unconscious measures of sexual passivity (i.e. faster reaction times to passive words following subliminal sex primes; Kiefer et al., 2006). Higher scores indicated more difficulty reaching orgasm. Participants answered these questions using a scale from 1 (Never, 0% of the time) to 5 (Always, 100% of the time). Participants were

instructed to answer this question about their current sexual partner. If they did not have a sexual partner, they were instructed to answer this question about their most recent sexual partner. In the present study, the measure was reliable for both men (α = .85) and women (α = .86). The two items served as two indicators.

Sexual pleasure was measured with three items used by Sanchez, Crocker, and Boike (2005) that assessed the extent to which participants experienced sexual intercourse, sexual activities, and sexual intimacy as pleasurable on a scale from 1 to 7. Higher scores indicated greater pleasure. In previous work, this measure has yielded reliabilities at .84 and correlated positively with men and women's sexual autonomy (Sanchez et al., 2005). If participants were not currently involved in a sexual relationship, they were instructed to answer this question about their most recent sexual relationship. In the present study, the measure was reliable for both men (α = .89) and women (α = .92). The two items served as two indicators.

RESULTS

Tables I-II present zero-order correlations among the indicators of all the hypothesized underlying factors and dependent variables (sexual arousability, difficulty reaching orgasm, and overall sexual pleasure) for the entire sample and separately for men and women.

Insert Table I about here

Insert Table II about here

As expected, women reported greater body image concerns (shame and self-consciousness) and more sexual problems (less arousability and more orgasm difficulty), but lower sexual pleasure than men (see Table III for means by gender).

Insert Table III about here

Preliminary analyses suggested that two demographic variables were significant contributors to body image and orgasm difficulty: age and relationship status. Thus, these variables were included in the structural equation model analyses. We inspected Lagrange statistics to determine which paths to include from the demographic variables to other latent factors.

We tested the adjusted hypothesized model using confirmatory latent-variable structural analyses with EQS computer software, which allowed us to test paths between our predictor variables and our multiple dependent variables simultaneously (Klem, 2000). Furthermore, structural equation modeling allowed us to test direct and indirect effects. In addition, results will not converge if multicollinearity was an issue in the data (Kline, 1998), which reduces the likelihood of a Type 1 error.[3]

In the present study, we predicted that body shame would indirectly relate to difficulty achieving orgasm and lower sexual arousability and pleasure, through increased sexual self-consciousness. We first tested this model on the entire sample. We then performed multiple group comparisons between men and women. The structural models for the multiple group comparisons were performed separately on listwise covariance matrices.[4]

In accordance with standard structural equation modeling with EQS software (Raykov, Torner, & Nesselroade, 1991), we reported the following goodness-of-fit indices: χ^2/df, non-normed fit (NNFI), and comparative fit (CFI) to evaluate the model. Acceptable fit indices exceed .90. We also reported the root mean square error of approximation (RMSEA) as well as the confidence interval of the RMSEA. RMSEA misfit indices should be at or below .06 (Hu & Bentler, 1999). Although χ^2 was not considered a good index for tests of fit because of its sensitivity to sample size, χ^2 was considered an appropriate measure for comparisons between nested models, because sample size is held constant (Byrne, 1994; Klem, 2000).

Entire Sample

To test whether sexual self-consciousness mediated the relationship between body shame and sexual problems and pleasure, we must first determine that a meaningful direct relationship exists between shame and sexual problems and pleasure. For example, when using EQS software, the direct relationship, in this case between shame and sexual arousability, orgasm ability, and pleasure, was tested separately in a preliminary nested model excluding the paths from sexual self-consciousness to the sexual outcomes. We refer to this model as the direct effects model. The results of the direct effect analyses are shown in Table IV, and the resulting standardized betas appear in parentheses in Fig. 3. In the direct effects model, body shame predicted lower sexual arousability ($\beta = -.33$) and greater difficulty reaching orgasm ($\beta = .18$). Body shame was indirectly related to lower sexual pleasure through reduced arousability and orgasm difficulty; however, no direct relationship was found between body shame and sexual pleasure ($\beta = -.07$, *ns*).

Insert Table IV about here

To test whether sexual self-consciousness mediated the relationship between body shame and sexual arousability and pleasure, we analyzed the data with all hypothesized paths including the paths from sexual self-consciousness to sexual arousability and pleasure (see Baron & Kenny, 1986). We refer to this model as the Full Model. Results for the Full Model appear in Fig. 2. Results were consistent with our hypotheses. Body shame predicted greater sexual self-consciousness ($\beta = .67$). In addition, the relationship between body shame and sexual arousability was no longer significant when the path from sexual self-consciousness to sexual arousability ($\beta = -.43$) was included in the model, suggesting mediation. However, sexual self-consciousness did not predict difficulty reaching orgasm ($\beta = .13$, *ns*). Relationship status predicted sexual self-consciousness and orgasm difficulty, such that people who were not currently in relationships reported greater sexual self-consciousness ($\beta = .20$) and orgasm difficulty ($\beta = .14$) than those currently involved in a romantic relationship. Age predicted less orgasm difficulty ($\beta = -.14$). The final model explained 38% of the variance in orgasm difficulty, 19% of the variance in sexual arousability, and 61% of the variance in sexual pleasure. The final model provided a good fit to the data, χ^2 (53) = 84.77, $p = .003$, *ns*, $\chi^2/df = 1.60$, NNFI = .98, CFI = .99, and RMSEA = .05.

Insert Figure 2 about here

Gender Analyses

To test the comparative fit of the model for both men and women, we tested the fit of the covariance matrices for both men and women (see Table II), constraining all paths, factor

loadings, and covariances to be equal (Bentler, 1989; Byrne, 1994). Because the purpose of this study was to examine whether the hypothesized model fit the data well for both men and women, we examined modification indices to explore whether one of more of the equality constraints should be released to improve the fit of the model. If modification indices indicate that a path should be released, this means that a significant gender difference was found.

In the direct effects model, women and men's body shame predicted lower sexual arousability (see Fig. 3). Body shame was indirectly related to lower sexual pleasure and orgasm difficulty through reduced arousal. The full model analysis that did not allow for gender differences provided a good fit to the data (see Table IV) but serial examination of modification indices indicated constraint releases for the paths from shame to sexual self-consciousness, from arousability to sexual pleasure, from age to orgasm difficulty, and the correlation between age and relationship status. Women's body shame was a stronger predictor of sexual self-consciousness than men's, although, as predicted, this path was significant for both men and women (see Fig. 3).

Insert Figure 3 about here

Furthermore, women's arousability was a stronger predictor of sexual pleasure than men's, although this path was significant for both groups (see Fig. 3). Men's age, not women's, was a significant predictor of greater difficulty with orgasm. In fact, the relationship between age and orgasm difficulty, although nonsignificant, was in the opposite direction for women. Finally, age was negatively correlated with relationship status: older participants were more likely to indicate that they were not currently in a relationship. This correlation was strongest for men. Fig. III

presents the paths obtained in the best fitting model, χ^2 (122) = 139.13, χ^2/df = 1.40, NNFI = .99, CFI = .99, and RMSEA = .02. The final model was compared to the unrestrained model; the restrained model was not a superior fit to the data, χ^2 (10) = 12.01, $p > .10$, *ns* (see Table IV), confirming that no other constraints should be released.

DISCUSSION

The present study provided qualified support for our model of how body image concerns relate to men and women's sexual experiences. Body shame strongly predicted greater self-consciousness during physical intimacy. In addition, body shame's significant relationship with lower sexual arousability was mediated by sexual self-consciousness. Moreover, this model fit men's and women's data well, suggesting that the basic processes (e.g., shame and self-consciousness) related to sexual arousability and pleasure were similar for men and women.

The present study found that both men and women were affected by body shame. With some minor exceptions, the proposed theoretical model of the relationship between body shame and sexual problems and pleasure fit the data for both men and women. Notably, while sexual self-consciousness affected men and women's sexual arousability and pleasure to the same extent, women's body shame was a stronger predictor of sexual self-consciousness. Moreover, women reported higher levels of body shame and sexual self-consciousness than did men. Thus, body image concerns, although on the rise for men, remain higher among women and may have more pronounced adverse effects on women. Moreover, these findings suggest that in sexual contexts body shame may affect men and women through the same processes; however, women are more susceptible to the initial triggers of sexual self-consciousness.

Compared to heterosexual men, heterosexual women may have higher levels of body shame and be more affected by body shame because women may believe that their sexual partners place greater value on physical attractiveness. Several studies have shown that, on average, men indicate stronger preferences for attractiveness in their partners than do women (Shackelford, Schmitt, & Buss, 2005; Singh & Young, 1995; Smith, Waldorf, & Trembath, 1990). Women may learn that their physical appearance is of primary importance, both in sexual and nonsexual contexts. Many social theorists (e.g., de Beauvoir, 1952; Fredrickson & Roberts, 1997; Fredrickson et al., 1998; Wolf, 1990) have argued that men's social and economic outcomes do not hinge upon their physical appearance to the same extent as women's outcomes. In line with their greater outcome-dependency, women generally demonstrate greater trait self-objectification than men, despite considerable overlap between men and women's distributions on this trait (Roberts & Gettman, 2003).

Despite some differences, men and women showed the same general relationships between body shame and sexual pleasure, arousal, and orgasm difficulty. These findings provide preliminary support for the idea that men have become more susceptible to body shame and its associated ill effects in recent years. The increased pressure on men to conform to a lean, muscular ideal is well documented (e.g., Frith & Gleeson, 2004; McCabe & Ricciardelli, 2004). Moreover, appearance concerns may exert a larger effect on men in sexual contexts than in nonsexual contexts. Arguably, sexual contexts expose men to the same sort of contingence on appearance that women encounter in a variety of contexts that are not explicitly sexual, such as the classroom and workplace. In previous research (e.g. Fredrickson et al., 1998; Gapinski et al., 2003) men may have failed to be affected by body image concerns, because they were observed in contexts in which their outcomes are not perceived as contingent upon physical attractiveness.

These findings for men were also consistent with recent research, which has demonstrated negative consequences of idealized physical images and appearance concerns for both men and women (Aubrey, 2006; Baird & Grieve, 2006; Harrison & Cantor, 1997; Labre, 2005; Lavine, Sweeney, & Wagner, 1999; McKinley, 1998; Morry & Staska, 2001; Strelan & Hargreaves, 2005). As the objectification of men increases, it will become increasingly important to identify the potential consequences of men's growing appearance concerns.

Body Shame and Sexual Arousability

Shame is believed to occur when an individual perceives him/herself as failing to meet cultural standards (Lewis, 1992; Tangney et al., 1996). Because women--and increasingly men--are confronted with unrealistic ideals of physical attractiveness (Rohlinger, 2002; Wolf, 1990), they may frequently experience shame regarding their failure to live up to these ideals. Our results imply that one consequence of increase body shame may be reduced sexual arousability. Because sexual arousability correlated strongly with orgasm ability and sexual pleasure, these findings may explain why body image concerns predict avoidance of sexual activities (Faith & Schare, 1993; Trapnell, Meston, & Gorzalka, 1997). Men and women with high levels of body shame may avoid sexual activities because they find sex to be less pleasurable and satisfying. Hence, these findings could have implications for mental health. If, as Ryff and Singer (1998) have suggested, positive and fulfilling sexual experiences promote mental and physical health, then improving sexual functioning and satisfaction could enhance overall well-being.

The Role of Sexual Self-Consciousness

Numerous processes have been proposed for how body concerns might affect sexual problems and satisfaction. However, few studies have actually examined the underlying processes in the relationship between body concerns and subjective sexual experiences. The

present study found that sexual self-consciousness mediated the negative relationships between body shame and sexual arousability and pleasure. Future research should examine additional mechanisms in the proposed pathway between body shame and reduced sexual pleasure. For example, sexual self-consciousness may increase appearance-related anxiety and thus undermine one's ability to focus during the sexual act. Self-consciousness generally interferes with attentional focus and concentration: Heightened self-consciousness has been shown to debilitate performance on academic and intellectual tasks (Gapinski et al., 2003; McKinley, 1999; Roberts & Gettman, 2004) as well as to impair physical performances, such as throwing a softball (Fredrickson & Harrison, 2005). Hence, self-consciousness might also produce anxiety during sexual encounters, thereby preventing individuals from being able to relax and enjoy sexual activities. Finally, sexual self-consciousness may reduce awareness of one's own physiological arousal (Masters & Johnson, 1970). An inability to attend to erotic cues and sensations during sexual activity has been proposed as a primary cause of sexual dysfunction (Barlow, 1986). Evidence suggests that women are generally less attuned to their own physical states than are men. In the absence of contextual cues, women are less accurate in estimating their heartbeat, blood glucose levels, and stomach contractions than are men (Pennebaker & Roberts, 1992; Roberts & Pennebaker, 1995). Moreover, women's relative insensitivity to their physical state extends to their sexual arousal: their subjective experience of arousal correlated to a lesser degree with their physiological sexual arousal than men (Laan & Everaerd, 1995; Laan, Everaerd, van der Velde, & Geer, 1995; Meston & Gorzalka, 1995). Women's greater body shame and self-consciousness during sexual activities may contribute to the relative disconnection between women's subjective arousal and their physiological arousal compared to men's.

Despite cultural influences and outcome dependency on appearance, there are ways in which body shame might be lessened. One potentially useful avenue for further research would be to test dyadic interventions for sexual partners. When men and women introduce their body concerns into their sexual relationships, their partners' might be able to alleviate body concerns by routinely reflecting positive body images to their sexual partners. Partners can operate as sources of body image concerns for both men and women (Sheets & Ajmere, 1995; Tantleff-Dunn & Thompson, 1995); conversely, they may be able to promote positive body images for their partners. This proposed relationship could account for why relationship status was associated with less sexual self-consciousness in the present study. In addition, future studies examining body concerns for people in romantic relationships should examine relationship satisfaction. Previous work has shown that sexual satisfaction was also associated with broader relationship satisfaction (for review, see Christopher & Sprecher, 2000). For example, diminished sexual satisfaction across time predicts likelihood of divorce (Edwards & Booth, 1994).

Limitations and Future Directions

The present research had a few limitations. First, the research sample employed was a convenience sample and thus unlikely to represent the United States population as a whole. Because our participants had access to the Internet and volunteered to complete our survey, they may differ in critical ways from the unsampled population. Despite this concern, there was a considerable range of ages, incomes, and education levels. This diversity increases our confidence in the generalizability of these results. Recent studies suggest that Internet survey research is as representative as non-internet survey research, if not more diverse than traditional methods utilizing college samples (Gosling, Vazire, & Srivastava, 2004).

Although our study was more diverse than traditional college samples, our sample was recruited from U.S. message boards and our sample was largely from a White/European background; thus, we cannot rule out that these findings might be different if we were to sample cross-culturally or if we had sufficient sample size to compare across different ethnic or racial groups. For example, recent findings suggest that people in more egalitarian societies, for example, report greater satisfaction with their sexual lives than those from less egalitarian societies (Laumann, et al., 2006). Thus, people from different cultures may differ in important ways from individuals currently living in the United States. At the same time, however, there may be considerable consistency in body concerns in Western cultures. For instance, samples of predominantly heterosexual men in Austria, America, and France suggested that men across cultures, on average, indicate a 28lb more muscular ideal body than their actual size (Pope et al., 2000). They also indicated that women across cultures wanted a 31lb more muscular ideal than their current body type, suggesting that men and women across Western cultures may view themselves as falling short of their personal ideals. Obviously, additional research is needed to come to any definitive conclusions on cross cultural differences. This research was also limited to exclusively heterosexual individuals. Future research should examine whether gay men and lesbian women's body concerns influence their sexual relationships.

A second limitation was the correlational nature of the study. We cannot conclude from our analyses that body shame causes self-consciousness or that self-consciousness causes impaired sexual function and diminished sexual satisfaction. Based on previous theorizing and existing research (e.g., Fredrickson & Roberts, 1997; Roberts & Gettman, 2004), we believe that body shame does, in fact, lead to sexual problems and reduced satisfaction. However, the relationship between body concerns and sexual outcomes could be reversed or reciprocal.

Greater sexual dysfunction, for example, might give rise to body concerns. Because our sample did not report high levels of sexual dysfunction, we believe that the direction of causality was appropriate for our sample. Unfortunately, the cross-sectional nature of the present research prevented a direct test of the causal relationship between self-objectification and sexual outcomes. Future research should examine this relationship using longitudinal or experimental designs.

In addition, our findings might be altered if we were to examine those with clinically diagnosed sexual dysfunctions. Our sample was largely sexually functional. Previous work utilizing identical measures of sexual pleasure, arousability, and orgasm difficulty on non-clinical samples (see Kiefer, Sanchez, Kalinka, & Ybarra, in press; Sanchez, et al., 2005; Zucker et al., 2004) reported levels of sexual problems similar to that observed in our sample. For example, clinical populations had an average level of 3.68 arousability on a 0 to 6 scale using the same Sexual Arousability Index, while the control sample had an average score of 4.42 (Zucker et al. 2004). Our sample, which had an average score of 5.67 on a 1 to 7 scale, mirrored the control sample (Zucker et al., 2004).

Finally, our study relied on self-reports of body concerns and sexuality, which could be compromised by social desirability concerns,[5] impaired awareness of sexual arousal, and the particular measures used to assess sexual function and pleasure. Although controlling for socially desirable responding did not significantly alter our results and all the measures used in the present study were based on previous published work, future research should employ physiological measures of sexual function in addition to self-reports of sexual function. In addition, future research should also examine the relationship between shame and other aspects

of sexual function, such as erectile disorders, as the same pattern of results would be expected for other sexual functions that require attention and focus on internal cues.

Summary

Although preferences for youth and beauty may be innate (Buss, 1989; Sprecher, Sullivan, & Hatfield, 1994), continued exposure to unattainable physical ideals and a strong sociocultural emphasis on physical attractiveness exacerbate anxiety about one's physical appearances (e.g., Fredrickson et al., 1998; Gapinski et al., 2004; Noll & Fredrickson, 1998; Roberts & Gettman, 2004). As the burgeoning literature on body shame and appearance anxiety illustrates, appearance concerns cannot be dismissed as mere vanity or narcissism. Appearance concerns arise from real societal pressures to conform to virtually unattainable physical ideals (Fredrickson & Roberts, 1997; Rohlinger, 2002; Wolf, 1990). Appearance concerns are not only normative within Western culture, but also carry significant emotional, motivational, and cognitive costs. The present research suggests that these concerns are linked to impaired sexual arousability and pleasure for both men and women, which may in turn reduce their ability to forge and maintain healthy, enjoyable sexual relationships. Thus, clinical interventions aimed at the alleviation of body shame, which could decrease sexual self consciousness, could increase pleasure and sexual arousability for men and women alike.

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REFERENCES

Adams, A. E., Haynes, S. N., & Brayer, M. A. (1985). Cognitive distraction in female sexual arousal. *Psychophysiology, 22,* 689-696

Andersen, B. L., Broffitt, B., Karlsson, J. A., & Turnquist, D. C. (1989). A psychometric analysis of the sexual arousability index, *Journal of Consulting and Clinical Psychology, 57,* 123-130.

Aubrey, J. S. (2006). Effects of sexually objectifying media on self-objectification and body surveillance in undergraduates: Results of a 2-year panel study. *Journal of Communication, 56,* 366-386.

Baghurst, T., Hollander, D. B., Nardella, B., & Haff, G. G. (2006). Change in sociocultural ideal male physique: An examination of past and present action figures. *Body Image, 3,* 87-91.

Baird, A. L., & Grieve, F. G. (2006). Exposure to male models in advertisements leads to a decrease in men's body pleasure. *North American Journal of Psychology, 8,* 115-121.

Bandalos, D. (2002). The effects of item-parceling on goodness-of-fit and parameter estimate bias in structural equation modeling. *Structural Equation Modeling, 9,* 78-102.

Barlow, D. H. (1986). Causes of sexual dysfunction: The role of anxiety and cognitive interference. *Journal of Consulting and Clinical Psychology, 54,* 140-148.

Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality & Social Psychology, 51*, 1173-1182.

Bartky, S. L. (1990). *Femininity and domination: Studies in the phenomenology of oppression.* New York: Routledge.

Beck, J. G., Barlow, D. H., Sakheim, D. K., & Abrahamson, D. J. (1987). Shock threat and sexual arousal: The role of selective attention, thought content and affective states. *Psychophysiology, 24,* 165-172.

Bentler, P. M. (1989). *EQS: Structural Equations Program Manual*. Los Angeles, CA: BMDP Statistical Software.

Berger, J. (1972). *Ways of seeing.* London: Penguin.

Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *Behavioral and Brain Sciences, 12,* 1-49.

Byely, L., Archibald, A. B., Graber, J. A., & Brooks-Gunn, J. (2000). A prospective study of familial and social influences on girls' body image and dieting. *International Journal of Eating Disorders, 28,* 155-164.

Byrne, B. M. (1994). *Structural equation modeling with EQS and EQS/Windows: Basic concepts, applications, and programming*. Thousand Oaks, CA: Sage Publications.

Calogero, R. M. (2004). A test of objectification theory: The effect of the male gaze on appearance concerns in college women. *Psychology of Women Quarterly, 28,* 16-21.

Christopher, F. S. & Sprecher, S. (2000). Sexuality in marriage, dating and other relationships: A decade review. *Journal of Marriage and the Family,* 62, 999-1017.

Cohane, G. H., & Pope, H. G. (2001). Body image in boys: A review of the literature. *International Journal of Eating Disorders, 29,* 373-379.

de Beauvoir, S. (1952). *The second sex.* (H. M. Parshley, Trans.). New York: Knopf.

Dickson, N., Paul, C., Herbison, P., & Silva, P. (1998). First sexual intercourse: age, coercion, and later regrets reported by a birth cohort. *British Medical Journal, 316,* 29-33.

Dove, N. L., & Wiederman, M. W. (2000). Cognitive distraction and women's sexual functioning. *Journal of Sex and Marital Therapy, 26,* 67-78.

Duenwald, M. (2004, September 28). How young is too young to have a nose job and breast implants? *New York Times,* p. F5.

Edwards, J. N. & Booth A. (1994). Sexuality, marriage, and well-being: The middle years. In Alice S. Rossi (Ed.), *Sexuality Across the Life Course* (pgs. 223-259). Chicago: University of Chicago Press.

Elliot, A. N., & O'Donohue, W. T. (1997). The effects of anxiety and distraction on sexual arousal in a nonclinical sample of heterosexual women. *Archives of Sexual Behavior, 26,* 607-624.

Faith, M. S., & Schare, M. L. (1993). The role of body image in sexually avoidant behavior. *Archives of Sexual Behavior, 22,* 345-356.

Fredrickson, B. L., & Harrison, K. (2005). Throwing like a girl: Self-objectification predicts adolescent girls' motor performance. *Journal of Sport and Social Issues, 29,* 79-101

Fredrickson, B. L., & Roberts, T. A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21,* 173-206.

Fredrickson, B., Roberts, T., Noll, S., Quinn, D., & Twenge, J. (1998). That swimsuit becomes you: Sex differences in self-objectification, restrained eating, and math performance. *Journal of Personality and Social Psychology, 75*, 269-284.

Frith, H., & Gleeson, K. (2004). Clothing and embodiment: Men managing body image and appearance. *Psychology of Men and Masculinity, 5,* 40-48.

Gapinski, K. D., Brownell, K. D., & LaFrance, M. (2003). Body objectification and "fat talk": Effects on emotion, motivation, and cognitive performance. *Sex Roles, 48,* 377-388.

Geer, J. H., & Fuhr, R. (1976). Cognitive factors in sexual arousal: The role of distraction. *Journal of Consulting and Clinical Psychology, 44*, 238-243.

Gosling, S. D., Vazire, S., & Srivastava, S. (2004). Should we trust web-based studies? A comparative analysis of six preconceptions about Internet questionnaires. *American Psychologist, 59,* 93-104.

Harrison, K., & Cantor, J. (1997). The relationship between media consumption and eating disorders. *Journal of Communication, 47,* 40-67.

Haussman, A., Mangweth, B., Walch, T., Rupp, C., & Pope, H. (2004). Body-image dissatisfaction in gay versus heterosexual men: Is there really a difference? *Journal of Clinical Psychiatry, 65,* 1555-1558.

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.

Huon G., & Lim J. (2000). The emergence of dieting among female adolescents: Age, body mass index, and seasonal effects. *International Journal of Eating Disorders, 28,* 221–225.

Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In

D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (Vol. 1, pp. 252-259). Boston: McGraw-Hill.

Kiefer, A., Sanchez, D. T., Kalinka, C.J., & Ybarra, O. (2006). How women's nonconscious association of sex with submission affects their ability to orgasm. *Sex Roles, 55,* 83-94.

Klem, L. (2000). Structural equation modeling. In L. G. Grimm & P. R. Yarnold (Eds.), *Reading and understanding MORE multivariate statistics* (pp. 227-260). Washington, DC: American Psychological Association.

Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guilford.

Laan, E., Everaerd, W., van der Velde, J., & Geer, J. H. (1995). Determinants of subjective experience of sexual arousal in women: Feedback from genital arousal and erotic stimulus content. *Psychophysiology. 32*, 444-451.

Labre, M. P. (2005) The male body ideal: Perspectives of readers and non-readers of fitness magazines. *Journal of Men's Health & Gender, 2,* 223-229.

Laumann, E. O., Paik, A., Glasser, D. B., Kang, J., Wang, T., Levinson, B., Moreira, E. D., Nicolosi, A. & Gingell, C. (2006). A cross-national study of subjective sexual well-being among older women and men: Findings from the global study of sexual attitudes and behaviors. *Archives of Sexual Behavior, 35,* 145-161.

Laumann, E. O., Paik, A., Rosen, R. C. (1999). Sexual dysfunction in the United States: Prevalence and predictors. *Journal of American Medical Association, 281,*537-544.

Laan, E., & Everaerd, W. (1995). Determinants of female sexual arousal: Psychophysiological theory and data. *Annual Review of Sex Research, 6,* 32-76.

Lavine, H., Sweeney, D., & Wagner, S.H. (1999). Depicting women as sex objects in television advertising: Effects on body dissatisfaction. *Personality and Social Psychology Bulletin*, 25, 1049-1058.

Leit, R. A., Pope, H. G., & Gray, J. J. (2001). Cultural expectations of muscularity in men: The evolution of Playgirl centerfolds. *International Journal of Eating Disorders, 29,* 90-93.

Lewis, M. (1992). *Shame: The exposed self.* New York: Free Press.

Lindberg, S. M., Hyde, J. S., & McKinley, N. M., A measure of objectified body consciousness for preadolescent and adolescent youth. *Psychology of Women Quarterly, 30,* 65-76.

Masters, W. H., & Johnson, V. E. (1970). *Human sexual inadequacy*. Boston: Little, Brown.

McCabe, M. P., & Ricciardelli, L. A. (2004). Body image dissatisfaction among men across the lifespan: A review of past literature. *Journal of Psychosomatic Research, 56,* 675-685.

McCarthy, M. (2002, April 28). Botox maker plans $50 million ad campaign. *USA Today*.

McKinley, N. M. (1998). Gender differences in undergraduates' body esteem: The mediating effect of objectified body consciousness and actual/ideal weight discrepancy. *Sex Roles, 39,* 113-123.

McKinley, N. M. (1999). Women and objectified body consciousness: Mothers' and daughters' body experience in cultural, developmental, and familial context. *Developmental Psychology, 35,* 760-769.

McKinley, N. M., & Hyde, J. S. (1996). The objectified body consciousness scale. *Psychology of Women Quarterly, 20,* 181-215.

Meana, M., & Nunnink, S. (2006). Gender differences in the content of cognitive distraction during sex. *Journal of Sex Research, 43,* 59-67.

Meston C. M., Gorzalka B. B. (1995). The effects of sympathetic activation on physiological and subjective sexual arousal in women. *Behaviour Research and Therapy, 33,* 651-664.

Morry, M. M., & Staska, S. L. (2001). Magazine exposure: Internalization, self-objectification, eating attitudes, and body satisfaction in male and female university students. *Canadian Journal of Behavioral Science, 33,* 269-279.

Noll, S. M., & Fredrickson, B. L. (1998). A mediational model linking self-objectification, body shame, and disordered eating. *Psychology of Women Quarterly, 22,* 623-636.

Pennebaker, J., & Roberts, T. A. (1992). Toward a his and hers theory of emotions: Gender differences in visceral perceptions. *Journal of Social and Clinical Psychology, 11,* 199-212.

Plastic surgery catching on with men. (2003, October 15th). MSNBC. Retrieved from http://www.msnbc.msn.com/id/3077114/

Pope, H. G., Gruber, A. J., Mangweth, B., Bureau, B., deCol, C., Jouvent, R. et al. (2000). Body image perception among men in three countries. *American Journal of Psychiatry, 157,* 1297-1301.

Pope, H. G., Olivardia, R., Borowiecki, J. J., & Cohane G. H (2001). The growing commercial value of the male body: A longitudinal survey of advertising in women's magazines. *Psychotherapy and Psychosomatics, 70,* 189-182.

Pope, H. G., Olivardia, R. Gruber, A., & Borowiecki, J. J. (1999). Evolving ideals of male body image as seen through action toys. *International Journal of Eating Disorders, 26,* 65-72

Przybyla, D. P., & Byrne, D. (1984). The mediating role of cognitive processes in self-reported sexual arousal. *Journal of Research in Personality, 18,* 54-63.

Raykov, T., Tomer, A., & Nesselroade, J. R. (1991). Reporting structural equation modeling results in *Psychology and Aging*: Some proposed guidelines. *Psychology & Aging, 6,* 499-503.

Roberts, T. A., & Gettman, J. Y. (2004). Mere exposure: Gender differences in the negative effects of priming a state of self-objectification. *Sex Roles, 51,* 17-27.

Roberts, T. A., & Pennebaker, J. (1995). Gender differences in perceiving internal state: Toward a his and her model of perceptual cue use. *Advances in Experiment Social Psychology, 27,* 143-175.

Robinson, P. H., & Holden, N. L. (1986). Bulimia nervosa in the male: A report of nine cases. *Psychological Medicine, 16,* 795-803.

Rohlinger, D. A. (2002). Eroticizing men: Cultural influences on advertising and male objectification. *Sex Roles, 46,* 61-73.

Ryff, C. D., & Singer, B. (1998). Human health: New directions for the next millennium. *Psychological Inquiry, 9,* 69-85.

Salusso-Deonier, C. J., Markee, N. L., & Pedersen, E. L. (1993). Gender differences in the evaluation of physical attractiveness ideals for male and female body builds. *Perceptual and Motor Skills, 76,* 1155-1167.

Sanchez, D. T., Crocker, J., & Boike, K. R. (2005). Doing gender in the bedroom: How investment in gender norms affects the sexual experience. *Personality and Social Psychology Bulletin, 31,* 1445-1455.

Shackelford, T. K., Schmitt, D. P., & Buss, D. M. (2005). Universal dimensions of human mate preferences. *Personality and Individual Differences, 39,* 447-458.

Sheets, V., & Ajmere, K. (2005). Are romantic partners a source of college students' weight concern? *Eating Behaviors, 6,* 1-9.

Siever, M. D. (1994). Sexual orientation and gender as factors in socioculturally acquired vulnerability to body dissatisfaction and eating disorders. *Journal of Consulting and Clinical Psychology, 62,* 252-260

Singh, D. & Young, R. K. (1995). Body weight, waist-to-hip ratio, breasts, and hips: Role in judgments of female attractiveness and desirability for relationships. *Ethology & Sociobiology, 16,* 483-507.

Smith, J. E., Waldorf, V. A., & Trembath, D. L. (1990). 'Single White male looking for thin, very attractive…' *Sex Roles, 23,* 675-685.

Sprecher, S., Sullivan, Q., & Hatfield, E. (1994). Mate selection preferences: Gender differences examined in a national sample. *Journal of Personality and Social Psychology, 66,* 1074-1080.

Stine, R. A. (1995). Graphical interpretation of variance inflation factors. *The American Statistician, 45,* 53-6.

Strelan, P., & Hargreaves, D. (2005). Reasons for exercise and body esteem: Men's responses to self-objectification. *Sex Roles, 53,* 495-503.

St. John, W. (2003, June 22). Metrosexuals come out. *New York Times,* p. F9.

Tangney, J. P., Millers, R. S., Flicker, I., & Barlow, D. H. (1996). Are shame, guilt, and embarrassment distinct emotions? *Journal of Personality and Social Psychology,*

70, 1256-1269.

Tantleff-Dunn, S., & Thompson, J. K. (1995). Romantic partners and body image disturbance: Further evidence for the role of perceived-actual disparities. *Sex Roles, 33,* 589-605.

Trapnell, P. D., Meston, C. M., & Gorzalka, B. B. (1997). Spectatoring and the relation between body image and sexual experience: Self-focus or self-valence? *Journal of Sex Research, 34,* 267-278

Wiederman, M. W. (2000). Women's body image self-consciousness during physical intimacy with a partner. *Journal of Sex Research, 37,* 60-68.

Wolf, N. (1990). *The beauty myth: How images of beauty are used against women*. New York: Anchor Books.

Yelland, C., & Tiggemann, M. (2003). Muscularity and the gay ideal: Body dissatisfaction and disordered eating in homosexual men. *Eating Behaviors, 4,* 107-116.

Zelman, K. (2005, Oct. 25). More men developing eating disorders. *WebMD Medical News*. Retrieved Nov. 8th, 2005, from http://www.webmd.com/content/article/114/111178?src=RSS_PUBLIC

Zucker, K. J., Bradley, S. J., Oliver, G., Blake, J., Fleming, S., & Hood, J. (2004). Self-reported sexual arousability in women with congenital adrenal hyperplasia. *Journal of Sex and Marital Therapy, 30,* 343-355.

Footnotes

[1]Participants were asked whether they had ever had sex and, in a subsequent question, participants were asked to define sex. Ninety-four percent of the sample included penile-vaginal intercourse (N = 301) in their definition of sex; six percent indicated oral sex and other acts of physical and emotional intimacy between sexual partners (N = 18). Thus, we can be confident that the majority of our sample had previously experienced penile-vaginal intercourse.

[2]For the structural equations analysis, we randomly divided the scale into two indicators that were created by averaging half the items, a procedure commonly referred to as parceling. Parceling improves the goodness of fit and reduces bias in estimations of structural parameters in comparison to individual item use (Bandalos, 2002).

[3]Prior to testing the structural equation models, variance inflation factors (VIF) were examined in multiple regression equations with the observed variables. As a rule of thumb, VIF should not exceed 5.0 (Stine, 1995). Our VIF factors fell in the range of 1.0 to 1.69, which suggests that multicollinearity was not an issue in these data.

[4]Structural equation modeling must satisfy four conditions: (1) specification (determining the indicators for latent variables and causal paths between latent variables); (2) identification (determining whether there was adequate information to estimate the model); (3) estimation (testing the paths via structural equation modeling); and (4) model evaluation (see Kenny, Kashy, & Bolger, 1998). To determine identification, we first scaled the latent variables. Then, in accordance with Kenny et al. (1998), we fixed one indicator per latent variable. Because we had two indicators per construct, we confirmed that the indicators' errors were uncorrelated and that the indicators of the construct correlated with a separate indicator of another construct, while their errors were uncorrelated.

[5]Controlling for socially desirable responding using the Marlowe-Crown social desirability scale did not alter the results.

Table I. *Zero Order Correlations on Entire Sample (N = 320)*

Variables	1	2	3	4	5	6	7
Body Shame							
Sexual Self consciousness	0.59***						
Arousability	-0.21***	-0.38***					
Orgasm Difficulty	0.26***	0.37***	-0.46***				
Sexual Pleasure	-0.31***	-0.45***	0.54***	-0.60***			
Relationship Status	0.03	0.24***	-0.10	0.18**	-0.31***		
Age	-0.09	-0.22***	0.10	-0.20**	0.12*	-0.10	

*** $p < .001$ ** $p <. 01$ * $p <. 05$

Table II. Correlations between Observed Variables for Women (N = 198) and Men (N = 122)

Variables	1	2	3	4	5	6	7
Body Shame		0.45***	-0.19*	0.23*	-0.22*	-0.03	0.14
Sexual Self consciousness	0.59***		-0.32***	0.20*	-0.31*	0.25**	-0.20*
Arousability	-0.14*	-0.34***		-0.50***	0.43**	0.03	0.01
Orgasm Difficulty	0.12	0.27***	-0.38***		-0.56***	0.10	0.16
Sexual Pleasure	-0.31***	-0.46***	0.54***	-0.60***		-0.21*	0.10
Relationship Status	0.06	0.26***	-0.15*	0.24***	-0.36***		-0.35***
Age	-0.04	-0.03	-0.02	-0.10	-0.01	-0.19**	

*** $p < .001$ ** $p < .01$ * $p < .05$, Women are represented below the diagonal

Table III. *Gender Differences in Body Image Concerns and Subjective Sexual Experiences*

	Women	Men	*t*	Cohen's *d*
Body Shame	3.19 (0.99)	2.57 (0.91)	5.55***	0.65
Sexual Self consciousness	2.38 (1.11)	1.63 (0.62)	7.63***	0.83
Arousability	5.87 (0.86)	6.28 (0.64)	-4.87***	0.54
Difficulty with Orgasm	2.77 (1.24)	1.63 (0.88)	9.32***	1.06
Sexual Pleasure	6.33 (1.07)	6.76 (0.56)	-4.62***	0.50

Note. All comparisons were performed with t-tests on the group averages. For sexual self-consciousness, sexual arousability and sexual pleasure, the equality of variance assumption did not hold. Thus, Welch's t-tests for separate variances were performed and appear in the table above. ****p <.001*

Table IV. *Fit Statistics and Chi-Square Comparisons for All Models*

	Constraints Released	χ^2	*df*	*NNFI*	*CFI*	*RMSEA*	$\Delta\chi^2$
Entire Sample: Full Model		84.77**	53	.98	.99	.05	
Entire Sample:		128.12***	56	.96	.97	.07	-43.35***
Direct Effects for Shame							
Gender Comparison:		174.36**	126	.97	.98	.04	
Difference Models	(a)	162.54*	125	.98	.98	.03	11.82***
	(a), (b)	151.85*	124	.99	.98	.03	10.69***
	(a), (b), (c)	144.80+	123	.99	.99	.03	7.05**
Best Fitting model	(a), (b), (c), (d)	139.13	122	.99	.99	.02	5.67*
Unrestrained Model	(e)	127.12	112	.99	.99	.02	12.01
Direct effects for Body shame*	(a), (c), (d), (h), (g)	178.93**	125	.97	.97	.04	-39.63***

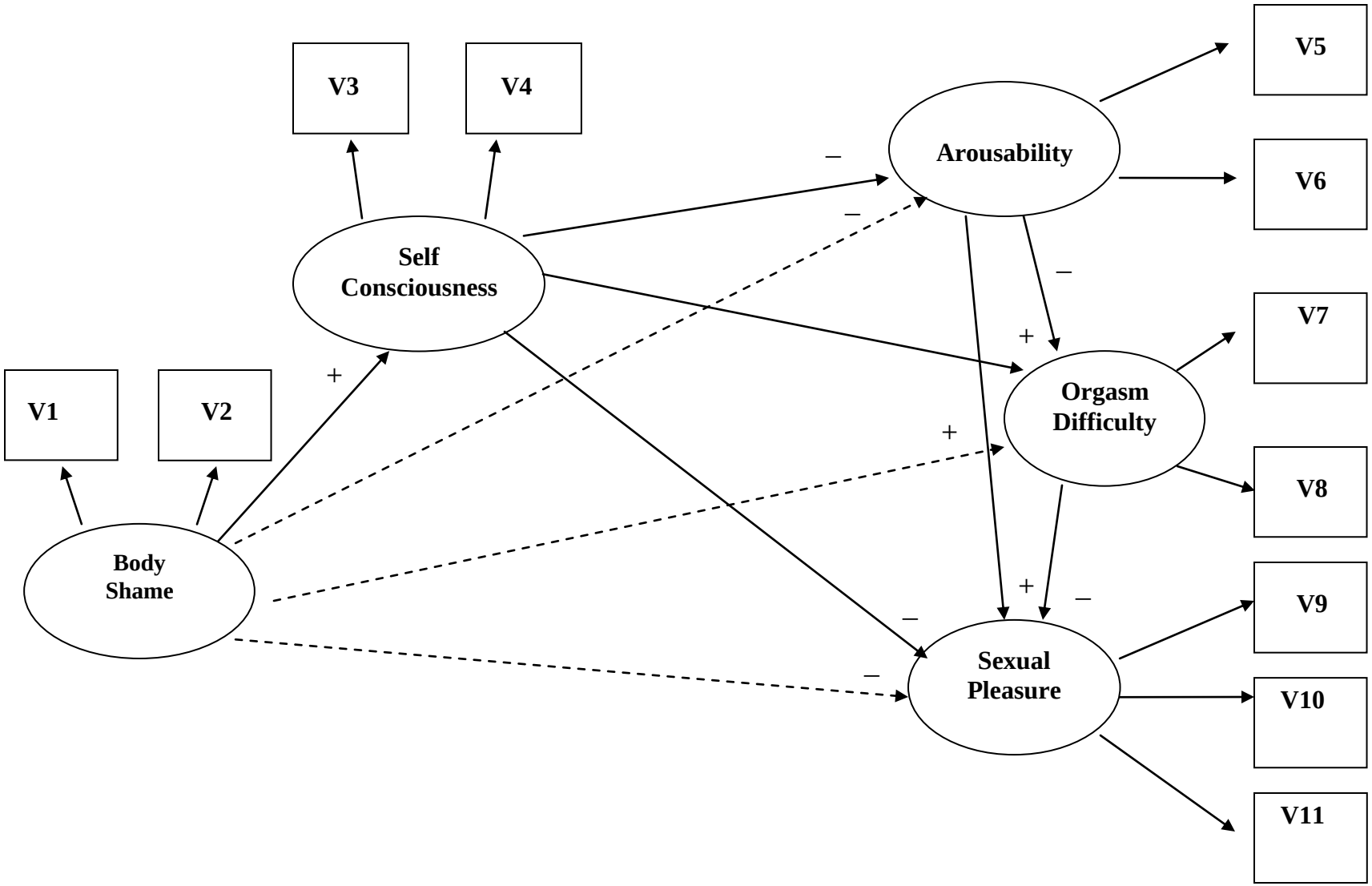
Note: Each row represents the structural model performed. They appear in chronological order. Thus, each model was compared to the previous model until the best fitting model was achieved. Both the direct effects model and unrestrained models were compared to the best fitting model. (a) = The equality constraint from arousability to sexual pleasure was released. (b) = The equality constraint from shame to sexual self-consciousness was released. (c) = The equality constraint from age to orgasm difficulty was released. (d) = The equality constraint for the age and relationship status correlation was released. (e) = The equality constraints between all factors were released.

Figure Caption

Figure 1. The Theoretical Model. In the figure, the dashed lines represent paths hypothesized to be mediated by sexual body consciousness. Circles represent factors. Squares represent indicators.

Figure 2. Structural Model Results for Entire Sample. Standardized beta coefficients are shown. All betas are significant at $p <. 05$ unless otherwise indicated. Betas from direct effect analyses are included in parenthesis. Relationship status was coded such that 1 = in relationship and 2 = not currently in a relationship.

Figure 3. Structural Model Results for Men and Women. Standardized beta coefficients are shown. All betas are significant at $p <. 05$ unless otherwise indicated. Betas from direct effect analyses are included in parenthesis. **Bolded characters refer to women (PUBLISHED PAPER SAYS MEN IN ERR)**. Each equality constraint that was released is represented by a letter that corresponds to the chi-square table. The letters in the model correspond to the paths that were released. The letters also correspond with the chi-square table. Relationship status was coded such that 1 = in relationship and 2 = not currently in a relationship.


V1
V2
V3
V4
V5
V6
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V8
V9
V10
V11
Body Shame
Self Consciousness
Arousability
Orgasm Difficulty
Sexual Pleasure
+
–
+
–
+
–
+
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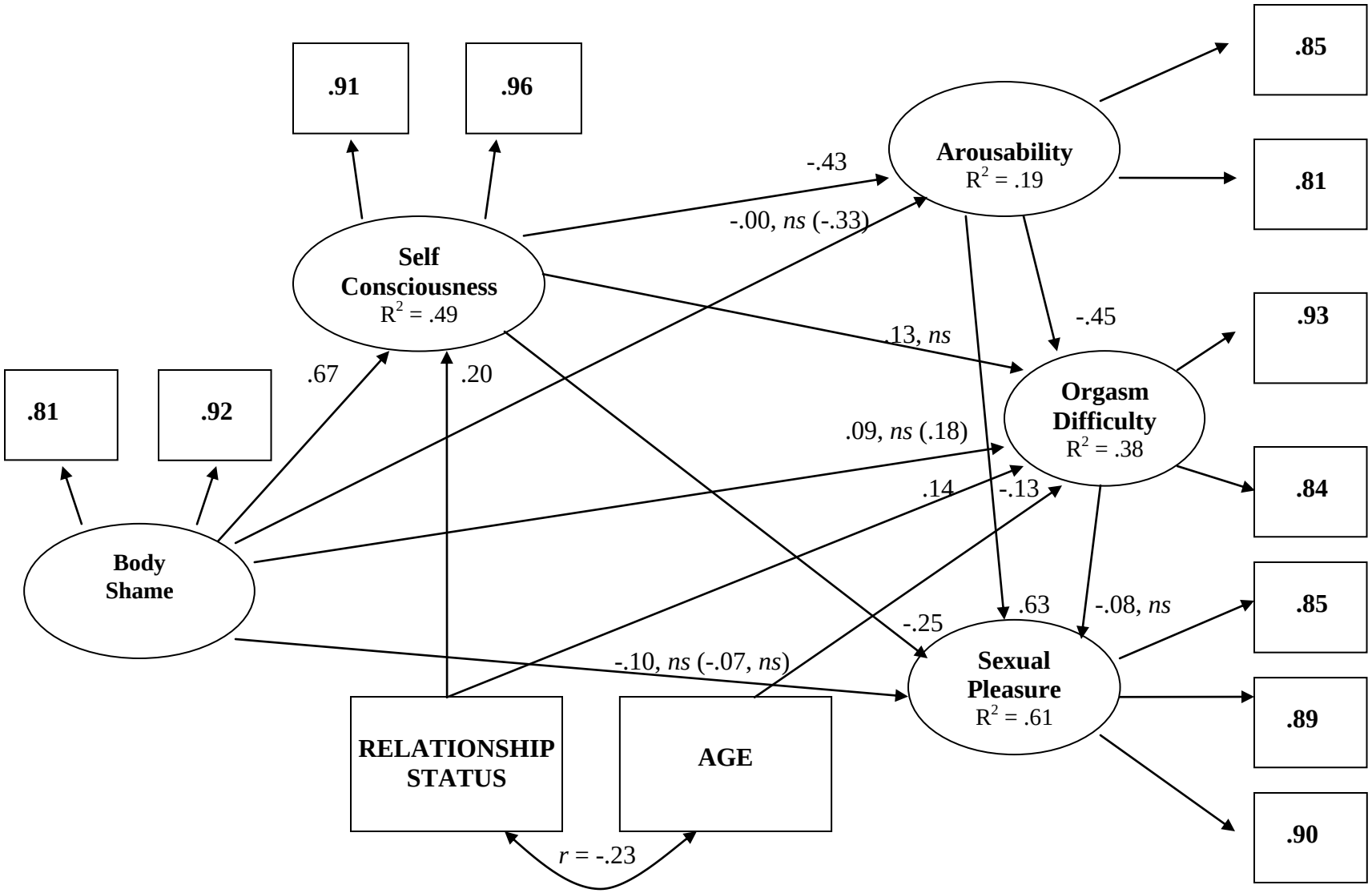
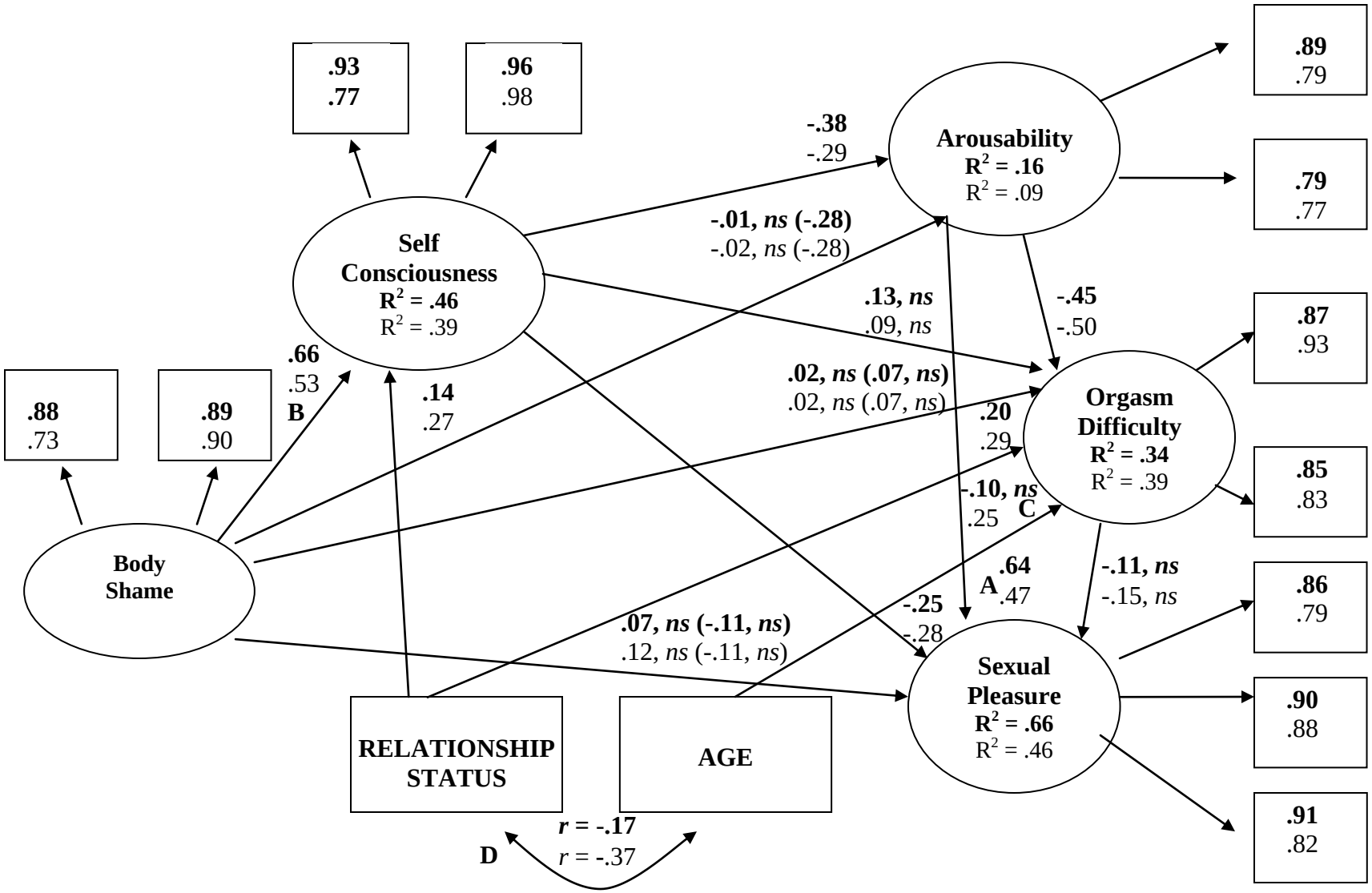

.91
.96
.85
Arousability
R2 = .19
-.43
.81
-.00, ns (-.33)
Self
Consciousness
R2 = .49
.93
-.45
.13, ns
.81
.92
.67
.20
Orgasm
Difficulty
R2 = .38
.09, ns (.18)
.84
.14
-.13
Body
Shame
.63
-.08, ns
.85
-.25
-.10, ns (-.07, ns)
Sexual
Pleasure
R2 = .61
.89
RELATIONSHIP
STATUS
AGE
.90
r = -.23

P:LE


.93
.77
.96
.98
-.38
-.29
Arousability
R² = .16
R² = .09
.89
.79
.79
.77
-.01, ns (-.28)
-.02, ns (-.28)
Self
Consciousness
R² = .46
R² = .39
.13, ns
.09, ns
-.45
-.50
.87
.93
.66
.53
B
.14
.27
.02, ns (.07, ns)
.02, ns (.07, ns)
Orgasm
Difficulty
R² = .34
R² = .39
.88
.73
.89
.90
.20
.29
.85
.83
-.10, ns
.25
C
Body
Shame
.64
A
.47
-.11, ns
-.15, ns
.86
.79
-.25
-.28
.07, ns (-.11, ns)
.12, ns (-.11, ns)
Sexual
Pleasure
R² = .66
R² = .46
.90
.88
RELATIONSHIP
STATUS
AGE
.91
.82
r = -.17
r = -.37
D