

Body Size, Physical Attractiveness, and Body Image Among Young Adult Women: Relationships to Sexual Experience and Sexual Esteem

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Although links between women's sexuality and body size, attractiveness, and body image may seem apparent, little empirical work has been conducted on this topic. In the current study, young adult women (N = 192) completed questionnaires and were weighed and rated for facial attractiveness. In general, current body size, experimenter-rated facial attractiveness, and self-rated facial and bodily attractiveness were related in some ways to current relationship status and sexual experience. General body dissatisfaction, avoidance of social settings due to appearance concerns, and degree of investment in one's physical appearance were unrelated to relationship status and sexual experience. Higher sexual esteem was related to subjective views of attractiveness, but not to actual body size or experimenter ratings of facial attractiveness.

It has been well-documented that women are objectified more than men: Women's bodies are more often looked at, evaluated, and sexualized (see Fredrickson & Roberts, 1997, for review). Correspondingly, men place greater emphasis on a potential mate's physical attractiveness than do women (for reviews see Buss, 1994; Feingold, 1990; Jackson, 1992). Given the apparent links between women's physical appearance and sexual desirability to men, how is women's attractiveness related to their own sexuality?

Although links between women's sexuality and physical attractiveness and body image make sense conceptually and are supported by everyday observation (Daniluk, 1993), this has been a topic infrequently studied. Those researchers who have considered potential relationships between women's sexuality and physical appearance and body image typically have done so in specialized populations. For example, researchers have considered body image and sexuality among women with gynecological disease (Andersen & LeGrand, 1991; Bellerose & Binik, 1993), cancer (Vaeth, 1986), eating disorders (Wiederman, 1996), or serious psychopathology (Money, 1994), as well as among women who have recently given birth (Reamy & White, 1987) or undergone mastectomy (Kriss & Kraemer, 1986). However, very few have considered typical, young adult women. Those studies that have explored sexuality and attractiveness or body image among nonclinical samples of women have done so in limited ways, sometimes with contradictory findings (Feingold, 1992).

For example, some researchers have found that self-rated facial attractiveness (MacCorquodale & DeLamater, 1979; Murstein & Holden, 1979), general body satisfaction (Faith & Schare, 1993; Trapnell, Meston, & Gorzalka, 1997),

and experimenter-rated physical attractiveness (Stelzer, Desmond, & Price, 1987) were positively related to the amount of lifetime sexual experience for women (but see Walsh, 1993, 1995, for contradictory findings with regard to self-rated attractiveness). When such relationships have been found, however, the correlations have been quite modest, so it is not surprising that other researchers found no relationship between self-rated attractiveness and sexual experience for women (Curran & Lippold, 1975; Feingold, 1992).

These past studies have been limited to examining general attractiveness or overall body dissatisfaction (or simply facial attractiveness) as related to general sexual experience (i.e., typically virginity status or lifetime number of sexual intercourse partners). In a time when writers have called for increased investigation of individual differences in women's sexuality (Anderson & Cyranski, 1995), physical appearance and body image have been neglected topics. In this study we explored several aspects of attractiveness and body image as these attributes and perceptions might relate to women's sexual experience and sexual esteem.

First, we assessed women's body size as a potential correlate of their sexuality. Although a small minority of men prefer large or obese women (Goode & Preissler, 1983), American males generally find relatively thin women most sexually desirable (Harris, Walters, & Washull, 1991; Spillman & Everington, 1989). Heavier women are generally stigmatized (Crandall, 1994; Harris, 1990; Harris et al., 1991; Miller, Rothblum, Felicio, & Brand, 1995), especially with regard to issues of sexuality and courtship (Regan, 1996; Sobal, Nicolopoulos, & Lee, 1995), and may have decreased opportunities for heterosexual dating (Kallen & Doughty, 1984; Schumaker, Krejci, Small, & Sargent, 1985; Tiggemann & Rothblum, 1988).

Facial attractiveness is also a relevant variable to assess when examining links between physical appearance and sexuality. Facial attractiveness appears to be an important determinant of male romantic and sexual interest in a particular female (Gangestad, 1993; Symons, 1995). So,

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facially attractive, heterosexual women may have relatively more sexual experience and greater sexual esteem as a result of greater male attention in general or attention from relatively more attractive and desirable men in particular.

Although physical attractiveness and body size may be important determinants of male attention and sexual opportunity, subjective views about one's facial and bodily attractiveness may also be related to sexual experience and sexual esteem. The subjective component of body image is important because, although body dissatisfaction and body size are significantly related among women, the correlation is far from perfect (Bailey, Goldberg, Swap, Chomitz, & Houser, 1990; Brodie & Slade, 1988). Accordingly, a large proportion of women in this culture believe they are overweight (Cash & Henry, 1995; Silberstein, Striegel-Moore, Timko, & Rodin, 1988), and some degree of body dissatisfaction appears to be normative for women in the United States (Rodin, Silberstein, & Striegel-Moore, 1984; Silberstein, Striegel-Moore, & Rodin, 1987). Conceivably, having a relatively positive view of one's physical attributes would allow for greater confidence in heterosexual interactions, which may lead to greater opportunities for sexual involvement and validation (Trapnell et al., 1997). For this reason, we also assessed women's views of their facial and bodily attractiveness, including general body dissatisfaction.

Body image, however, is a multifaceted phenomenon, and we sought to investigate possible links between women's sexuality and other aspects of their experience related to physical appearance. For example, although women invest relatively more in their physical appearance compared to men (Siever, 1994; Sullivan & Harnish, 1990), there are individual differences among women with regard to the degree of effort devoted to enhancing their physical appearance (Brown, Cash, & Mikulka, 1990). Women who place more emphasis on their appearance, or demonstrate a higher degree of *appearance orientation*, may have incorporated to a greater degree the cultural objectification of women's bodies (Fredrickson & Roberts, 1997). As a result, women high in appearance orientation may be more prone to experiencing self-consciousness regarding how their body appears to others, particularly men, and therefore may avoid sexual interactions. At minimum, women high in appearance orientation may view themselves as less desirable as a sexual partner (i.e., demonstrate low sexual esteem) due to greater self-consciousness over their physical appearance (and hence sexual appeal).

Just as women vary in degree of appearance orientation, they also vary with regard to degree of general social avoidance due to concern over physical appearance (Rosen, Srebnik, Saltzberg, & Wendt, 1991). Accordingly, we assessed the degree to which women avoid social settings because of negative body image. Women who avoid settings in which they believe they might be scrutinized by men may have less opportunity for heterosexual involvement, and hence may have relatively less sexual experience and lower sexual esteem.

In summary, we sought to investigate potential relationships between women's heterosexual dating and sexual experience, sexual esteem, physical attractiveness, body size, and subjective body image. Specifically, we hypothesized that relatively greater sexual experience and increased sexual esteem among young adult women would be related to (1) greater actual facial attractiveness; (2) relatively lower body weight; (3) relatively lower body dissatisfaction and higher self-ratings of attractiveness; (4) lower appearance orientation; and (5) less avoidance of social situations due to concern over physical appearance.

Assuming that we found the hypothesized relationships, it would be unclear whether relationships between attractiveness and sexual experience were the result of decreased opportunity (i.e., less interest shown by potential partners) or differences in sexual attitudes (with more attractive women possibly holding more positive attitudes toward sex). To ascertain whether any relationships were mediated by sexual attitudes, we also measured respondents' affective orientation toward sexual stimuli (erotophobia/erotophilia) and attitudes regarding comfort with casual sex.

METHOD

Participants

Research participants were initially 232 women recruited from introductory psychology classes at Ball State University who received research credit toward partial completion of their psychology course. Two women were excluded from analyses because they were pregnant. Because the focus of the current study was heterosexual experience, five women who identified themselves as exclusively or primarily lesbian were excluded from further analyses. To ensure a rather homogeneous sample with regard to age (body size is positively related to age; Andres, 1995), we also excluded women ages 22 or older ($n = 26$) from further analyses. Because the existence of eating disorders is apparently related to women's sexuality in idiosyncratic ways (Wiederman, 1996), seven women with an exceptionally low body mass index (< 19), which may be indicative of a history of disordered eating, were excluded from analyses. The final sample comprised 192 young women aged 18 to 21 ($M = 18.91$, $SD = .90$). Most of the women (89.6%) were White; 7.8% were Black, and 2.6% were Latina.

Measures

Relationship status and sexual experience. Participants indicated their current relationship status using six categories: not dating anyone currently, casually dating one or more people, dating one person exclusively, living with romantic partner, engaged or planning to marry, and married. With regard to sexual experience, each respondent was asked to indicate whether she had ever experienced "sexual intercourse with a male (penis in vagina)" and "oral stimulation of your genitals by a male," and whether she had "ever orally stimulated a

male's genitals." Respondents were also asked to provide a write-in response to the question, "With how many different males have you had sexual intercourse?" The accuracy of the number respondents generate for such a question is dubious (see Wiederman, 1997, for discussion of this issue). However, in the current study, lifetime number of sexual intercourse partners was used as a potential correlate of scores on measures of body size, attractiveness, and body image. Thus, the absolute number of partners was unimportant for the current purposes, making inclusion of this variable less problematic (Brecher & Brecher, 1986).

Sexual esteem. Sexual esteem, or the tendency to evaluate oneself positively as a sexual partner, was measured with the short form (Wiederman & Allgeier, 1993) of the sexual esteem scale from Snell and Papini (1989). A sample item from the scale is "I think of myself as a good sexual partner." Respondents indicated their degree of disagreement or agreement with each of the five statements using a 5-point scale (ranging from 1 = *Strongly Disagree* to 5 = *Strongly Agree*). After one item is reverse-scored, an overall score is generated by summing across items, with higher scores indicating relatively greater sexual esteem. Wiederman and Allgeier (1993) reported a relatively high correlation between the short form and full scale among women in their sample, and scores on the short form were moderately correlated to a measure of general self-esteem. In the current study, the internal consistency coefficient (Chronbach's alpha) was .92.

Sexual attitudes. Respondents completed the brief form of the Sexual Opinion Survey (SOS; Fisher, Byrne, White, & Kelly, 1988) as a measure of their affective orientation toward erotic stimuli. A sample item is "The thought of engaging in unusual sex practices is highly arousing." Respondents indicated their degree of agreement or disagreement with each of 5 statements using a 7-point scale (ranging from 1 = *Strongly Agree* to 7 = *Strongly Disagree*). Scoring consists of summing the ratings given to the two negatively worded items, adding the value 19, and subtracting the ratings given to the remaining three items (see Fisher et al., 1988). Thus, higher scores indicate relatively high attitudinal and affective acceptance of erotic stimuli (i.e., erotophilia). In the current study, the internal consistency coefficient (Chronbach's alpha) was .57.

As a measure of attitudinal acceptance of casual sex, respondents also completed the three attitudinal items from the Sociosexual Orientation Inventory (SOI; Simpson & Gangestad, 1991): "Sex without love is O.K."; "I can imagine myself comfortable and enjoying 'casual' sex with different partners"; and "I would have to be closely attached to someone (both emotionally and psychologically) before I could feel comfortable and fully enjoy having sex with him/her." Respondents indicated their degree of disagreement or agreement with each statement using 9-point scales (ranging from 1 = *Strongly Disagree* to 9 = *Strongly Agree*). In line with the original scoring of the instrument, the last item was reverse-scored and the mean response across the three items was taken as an indicator

of attitude toward casual (noncommitted) sex, with higher scores indicative of greater acceptance. In the current study, the internal consistency coefficient (Chronbach's alpha) was .70.

Actual attractiveness. Similar to past research (Feingold, 1992), as a measure of actual facial attractiveness (as opposed to self-reported facial attractiveness), research participants were unobtrusively and independently rated by a male and a female research assistant using a 7-point scale (ranging from 1 = *Very Unattractive* to 7 = *Very Attractive*). The correlation between the two was .52 (similar to previous studies using independent raters; Feingold, 1992). We created a composite score by taking the mean of the two ratings. These composites ranged from 2 to 6.5 ($M = 4.01$; $SD = .73$).

Body size. Participants' height and weight were converted into a standard index of overall body size, or body mass index (BMI), according to Quetelet's index (kg/m^2 ; Garrow & Webster, 1985). BMI takes into account the individual's height and weight, and has been shown to be a convenient and relatively accurate measure of overall adiposity (Brodie & Slade, 1988; Hanna, Wrate, Cowen, & Freeman, 1995).

Body dissatisfaction and self-rated attractiveness. General body dissatisfaction was measured with the corresponding subscale from the Eating Disorders Inventory (EDI; Garner, Olmsted, & Polivy, 1983). The EDI is a widely used, self-report measure of eating-related attitudes and traits that is reliable and has been extensively validated (see Garner, 1991). The Body Dissatisfaction subscale taps the respondent's current dissatisfaction with specific body parts that are of greatest concern to women (e.g., hips, thighs, buttocks), with higher scores indicating greater body dissatisfaction. A sample item is "I think that my thighs are too large." Participants responded to the nine items using a 6-point scale (ranging from 1 = *Always* to 6 = *Never*). After 4 items are reverse-scored, an overall score is created by summing responses across all nine items. Garner (1991) reported internal consistency coefficients ranging from .91 to .93 across three studies, as well as test-retest correlations of .95 for one week and .97 for three weeks. In the current study, the internal consistency coefficient (Chronbach's alpha) was .89.

Self-rated bodily attractiveness was assessed by asking respondents to use a 7-point scale to indicate their response to the statement "Overall, I would rate the attractiveness of my body as" The response scale was anchored with 1 = *Well Below Average*, 4 = *Average*, and 7 = *Well Above Average*. Similar to past research (Feingold, 1992), self-rated facial attractiveness was assessed by presenting the same 7-point scale in response to the statement "Overall, I would rate the attractiveness of my face as"

Appearance orientation. Respondents completed the Appearance Orientation subscale taken from the Body-Self Relations Questionnaire (Brown et al., 1990). A sample item is "Before going out, I usually spend a lot of time getting ready." Participants responded to the 12 items using a

5-point scale (ranging from 1 = *Definitely Disagree* to 5 = *Definitely Agree*). After four of the items are reverse-scored, an overall score is computed by summing responses across the 12 items. Higher scores indicate a greater emotional and behavioral investment in one's physical appearance. Brown et al. (1990) reported an internal consistency coefficient of .84 for women and a test-retest correlation of .90 across four weeks. In the current study, the internal consistency coefficient (Chronbach's alpha) was .87.

Social avoidance. Respondents completed the Social Activities subscale of the Body Image Avoidance Questionnaire (Rosen et al., 1991). A sample item is "I do not go out socially if the people I am with are thinner than me." Participants responded to each of the four items using a 6-point scale (ranging from 1 = *Never* to 6 = *Always*). Ratings across the four items are summed to compute an overall score, with higher scores indicating a greater tendency to avoid social activities in which body weight and appearance may be a focus. Rosen et al. (1991) reported an internal consistency coefficient of .89 and a test-retest correlation of .87 across two weeks. Rosen et al. (1991) also provided multiple sources of validity data, including convergence with established measures of body-image disturbance and disordered eating and notable changes in scale scores after treatment for body-image concerns. In the current study, the internal consistency coefficient (Chronbach's alpha) was .83.

Procedure

When signing up for potential participation in the study, respondents were aware only that participation was worth one hour of research credit. The nature of the study was not disclosed until their arrival at the testing site. None of the potential participants refused to participate upon learning of the nature of the study. Participants completed the anonymous questionnaire booklet in small groups ranging from 5 to 20 women, and all participants did so in the presence of the same male and female research assistant. As each participant was completing the questionnaire packet, each research assistant inconspicuously and independently rated the facial attractiveness of each participant and recorded his or her respective rating on a coding sheet.

Because past research has shown that college women frequently distort their weight in self-reports (e.g., Betz, Mintz, & Speakmon, 1994), we weighed respondents. Upon completing the questionnaire, respondents deposited it in a box and walked to a separate room nearby, where two female graduate students weighed participants and measured their height. Height was measured using a tape measure mounted to the wall and weight was measured using a digital scale. Upon completion of the measurements, participants were thanked and provided with a credit slip and a debriefing slip describing the high prevalence of body dissatisfaction among women on college campuses and the availability of confidential counseling for body-image concerns through the university counseling center.

RESULTS

Because of the relatively large number of inferential statistics performed in the current study, we sought to avoid Type I errors. Rather than focus exclusively on p values corresponding to inferential statistics, we also present effect sizes (Cohen, 1994). For group comparisons, Cohen's (1969) effect size statistic d was calculated as the difference between the mean score of the group with the greater score (or rating) and the group with the lower score (or rating) divided by the pooled standard deviation (also see Rosenthal & Rosnow, 1991). Cohen (1969) considered effect sizes, d , of .80 or greater as large effects, those around .50 as medium effects, and those around .20 as small effects. This rule of thumb has been used by other researchers who have examined effect sizes in the human sexuality research literature (Oliver & Hyde, 1993). With regard to relationships between continuous variables, Pearson correlation coefficients were chosen as an indicator of effect size. We chose absolute values of .30 or greater as worthy of comment and interpretation, as Cohen (1992) considered this value to represent a medium effect size. The current sample size was ample for detecting medium effect sizes in the population (Cohen, 1992).

Descriptive Statistics

Among the 192 respondents, BMI ranged from 19.0 to 52.4 ($M = 25.3$, $SD = 5.9$), with 45 (23.4%) of the women exceeding a BMI of 27.3 which is used to indicate significant overweight by the National Center for Health Statistics (Najjar & Rowland, 1987). Self-ratings of facial attractiveness ranged from 1 to 7, with most (60.9%) of the respondents rating themselves as above average (rating > 4). Self-ratings of bodily attractiveness also ranged from 1 to 7, but only 32.8% of respondents rated themselves as above average (rating > 4). Due to the imposed restriction on the age of the respondents in the sample, it is not surprising that age was unrelated to any of the seven attractiveness or body image variables (mean absolute value of $r = .04$, range = $-.08$ to $.06$). Therefore, any relationships between the measures of attractiveness or body image and dating or sexual experience are not confounded by respondents' age.

Current Relationship Status

In considering relationships between the attractiveness and body image variables and current relationship status, we dichotomized the sample into those not currently involved in an exclusive relationship and those currently dating one person exclusively, living with a partner, engaged, or married. Comparisons between those respondents involved in a relationship and those not involved are presented in Table 1. Statistically significant differences and small to medium effect sizes were demonstrated with regard to BMI, experimenter-rated facial attractiveness, and self-rated bodily attractiveness. Compared to peers who were not currently in a relationship, those respondents currently in a relationship were relatively smaller

Table 1. One-Way ANOVAs for Differences in Attractiveness and Body Image Between Respondents Currently Involved in a Relationship ($n = 94$) and Those Who are Not ($n = 98$)

Variable	Currently Involved	Not Involved	<i>F</i>	<i>d</i>
	<i>Mean</i>	<i>Mean</i>		
Body Mass Index	24.08 (4.54)	26.39 (6.81)	7.62**	.39
Experimenter-Rated Attractiveness	4.14 (.76)	3.88 (.71)	5.86*	.35
Self-Rated Facial Attractiveness	4.89 (1.32)	4.69 (1.00)	1.86	.20
Self-Rated Bodily Attractiveness	4.19 (1.32)	3.64 (1.33)	8.19**	.41
Body Dissatisfaction (EDI)	39.04 (10.77)	40.42 (9.47)	.89	.14
Appearance Orientation	45.62 (8.20)	43.41 (7.84)	3.64	.27
Social Avoidance due to Concerns About Appearance	6.83 (3.81)	6.6 (3.44)	.11	.05

Note. EDI = Eating Disorders Inventory (Garner et al., 1983). Standard deviations are shown in parentheses.

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

and objectively more attractive, and perceived themselves as having more attractive bodies.

Sexual Experience and Sexual Esteem

Comparisons between respondents with sexual intercourse experience and their peers who were virgins are presented in Table 2. Statistically significant differences and medium effect sizes were evident only with regard to BMI and experimenter-rated attractiveness. Virgins were relatively heavier and objectively less attractive compared to their coitally experienced peers. Similar comparisons with regard to oral sex experience are presented in Tables 3 and 4. With regard

to fellatio, as shown in Table 3, the only body image variable to evidence a statistically significant difference and a medium effect size was experimenter-rated attractiveness. Those respondents who had performed oral sex for a male partner were rated more attractive compared to those respondents without such experience. As shown in Table 4, with regard to having ever received oral sex, two body image variables displayed statistically significant differences and medium effect size: BMI and self-rated bodily attractiveness. Women who had ever received oral sex were relatively thinner and perceived their bodies as more attractive compared to women without such oral sex experience.

Table 2. One-Way ANOVAs for Differences in Attractiveness and Body Image Between Respondents Who Had Experienced Sexual Intercourse ($n = 144$) and Those Who Had Not ($n = 48$)

Variable	Had Intercourse	Virgins	<i>F</i>	<i>d</i>
	<i>Mean</i>	<i>Mean</i>		
Body Mass Index	24.61 (5.42)	27.18 (6.89)	7.02**	.43
Experimenter-Rated Attractiveness	4.10 (.75)	3.72 (.64)	10.22**	.51
Self-Rated Facial Attractiveness	4.81 (1.04)	4.73 (.96)	.24	.08
Self-Rated Bodily Attractiveness	3.97 (1.38)	3.73 (1.25)	1.16	.18
Body Dissatisfaction (EDI)	40.28 (9.85)	38.15 (10.84)	1.60	.21
Appearance Orientation	45.03 (8.04)	42.85 (8.05)	2.65	.27
Social Avoidance due to Concerns About Appearance	6.65 (3.78)	7.02 (3.13)	.38	.10

Note. EDI = Eating Disorders Inventory (Garner et al., 1983). Standard deviations are shown in parentheses.

** $p < .01$.

Table 3. One-Way ANOVAs for Differences in Attractiveness and Body Image Between Respondents Who Had Performed Oral Sex ($n = 151$) and Those Who Had Not ($n = 41$)

Variable	Had Given Oral Sex	Had Not Given Oral Sex	<i>F</i>	<i>d</i>
	<i>Mean</i>	<i>Mean</i>		
Body Mass Index	24.87 (5.42)	26.69 (7.34)	3.10	.31
Experimenter-Rated Attractiveness	4.08 (.73)	3.74 (.73)	6.82**	.46
Self-Rated Facial Attractiveness	4.85 (1.04)	4.59 (.92)	2.16	.25
Self-Rated Bodily Attractiveness	3.98 (1.39)	3.66 (1.17)	1.83	.24
Body Dissatisfaction (EDI)	40.33 (10.32)	37.59 (9.17)	2.39	.27
Appearance Orientation	44.95 (7.73)	42.80 (9.13)	2.28	.27
Social Avoidance due to Concerns About Appearance	6.60 (3.65)	7.24 (3.53)	1.01	.18

Note. EDI = Eating Disorders Inventory (Garner et al., 1983). Standard deviations are shown in parentheses.

** $p < .01$.

Last, we considered the simple correlations between the body-image variables and scores on measures of sexual attitudes and sexual esteem, as well as the lifetime number of sexual intercourse partners among women who had experienced coitus. These correlations are presented in Table 5. Sexual attitudes were unrelated to any of the attractiveness or body-image variables. For lifetime number of sexual partners among nonvirgins, only the relationship with self-rated facial attractiveness approached a medium effect size. Sexual esteem scores, however, were positively related to self-rated

facial and bodily attractiveness and negatively related to social avoidance due to appearance concerns. Women with greater sexual esteem believed themselves to be more physically attractive and were relatively less likely to avoid social settings in which one's appearance might be a focus.

DISCUSSION

We hypothesized that women's physical attractiveness and body image would be related to their relationship

Table 4. One-Way ANOVAs for Differences in Attractiveness and Body Image Between Respondents Who Had Received Oral Sex ($n = 155$) and Those Who Had Not ($n = 37$)

Variable	Received Oral Sex	Had Not Received Oral Sex	<i>F</i>	<i>d</i>
	<i>Mean</i>	<i>Mean</i>		
Body Mass Index	24.58 (4.88)	28.11 (8.54)	11.26**	.60
Experimenter-Rated Attractiveness	4.06 (.70)	3.80 (.88)	3.76	.35
Self-Rated Facial Attractiveness	4.83 (1.02)	4.62 (.98)	1.28	.21
Self-Rated Bodily Attractiveness	4.05 (1.35)	3.35 (1.21)	8.15**	.52
Body Dissatisfaction (EDI)	39.58 (10.17)	40.43 (10.03)	.21	.08
Appearance Orientation	44.84 (7.82)	43.03 (9.02)	1.51	.22
Social Avoidance due to Concerns About Appearance	6.57 (3.63)	7.43 (3.60)	1.68	.24

Note. EDI = Eating Disorders Inventory (Garner et al., 1983). Standard deviations are shown in parentheses.

** $p < .01$.

Table 5. Pearson Correlations Between Attractiveness and Body-Image Variables and Sexuality Variables

Attractiveness and Body-Image Variables	Sexuality Variables			
	Lifetime Number of Partners	Sexual Opinion Survey	Casual Sex Attitudes	Sexual Esteem
Body Mass Index	.01	.05	-.01	.14
Experimenter-Rated Attractiveness	.12	-.05	.02	.18
Self-Rated Facial Attractiveness	.27**	.08	.09	.47**
Self-Rated Bodily Attractiveness	.16	.01	.05	.35**
Body Dissatisfaction (EDI)	-.04	.07	-.02	-.08
Appearance Orientation	.04	.14	.02	.14
Social Avoidance due to Concerns About Appearance	-.13	.00	-.08	-.26**

Note. EDI = Eating Disorders Inventory (Garner et al. 1983). Lifetime Number of Partners = Lifetime number of sexual intercourse partners among nonvirgins ($n = 144$). Sexual Opinion Survey = short-form of Sexual Opinion Survey (Fisher et al. 1988). Casual Sex Attitudes = attitudinal items from Sociosexual Orientation Inventory (Simpson & Gangestad, 1991). Sexual Esteem = short-form of the sexual esteem scale from Wiederman and Allgeier (1993).

** $p < .01$.

status and sexual experience as well as to their sexual esteem. Across indices of heterosexual experience, some attractiveness and body-image variables evidenced fairly consistent relationships, whereas others did not. Women who were relatively heavier (higher BMI) and rated as less facially attractive by the experimenters were less likely to be involved in a steady dating relationship and to have had sexual intercourse. Also, heavier women were less likely to have received oral sex from a male, and women rated as less facially attractive were less likely to have performed oral sex on a male. Are these general relationships between body size and attractiveness and sexual experience due to a lack of opportunity, differential sexual attitudes, or inhibition due to self-consciousness on the part of larger women?

Although none of these various possibilities can be ruled out by the results of the current study alone, we believe the pattern of findings support one explanation more than the others. First, consider differential sexual attitudes as a possible explanation. BMI was unrelated to affective orientation to erotic stimuli (erotophobia/crotophilia) or to attitudinal acceptance of casual sex (see Table 5). Simple correlations between sexual attitudes and BMI would have to be significant if these sexual attitudes were to mediate the relationship between body size and sexual experience (Baron & Kenny, 1986). Thus, the relative lack of heterosexual experience among the larger women in the sample does *not* appear to be due to heavier, less attractive women holding more negative sexual attitudes.

Similarly, BMI was unrelated to lifetime number of sexual intercourse partners among those respondents who had experienced sexual intercourse and was unrelated to sexual esteem scores or self-evaluation as a sexual partner (Table 5). Thus, larger women did not view themselves as less capable sex partners, nor did they have fewer partners once an attractiveness threshold was reached, apparently allowing for the experience of sexual intercourse.

As a side note, recall that previous research (e.g., Regan, 1996) demonstrated that overweight women are perceived as having less dating and sexual experience and as being relatively cold and asexual compared to average-weight peers. The results of the current study suggest that perceptions of less experience may be based on reality, but they provide no indication that the heavier women had more negative sexual attitudes or self-views as a sexual partner.

Are links between attractiveness, body size, and sexual experience due to greater inhibition on the part of larger, less attractive women? The relationships between BMI and sexual experience did not appear to be mediated by a more general avoidance of social settings over concern about physical appearance: Scores on the relevant measure of this tendency were unrelated to current relationship status (see Table 1), sexual experience (see Tables 2-4), or sexual esteem (see Table 5). Thus, there was no evidence that observed relationships between body size and sexuality were due to social inhibition among the heavier women or less attractive women.

Although there are surely other explanations for the current findings, we conclude that a relative lack of opportunity for heterosexual interaction because of less interest by potential partners may be the primary reason behind most of the relationships between BMI and dating and sexual experience. This explanation is further supported by previous research on marriage. First, obese women are less likely than nonobese peers to get married (Gortmaker, Must, Perrin, Sobol, & Dietz, 1993). Second, increases in wives' body weight result in decreased sexual interest by husbands. Margolin and White (1987), in a three-year longitudinal study of a nationally representative sample of married couples, found that weight gain and negative body-shape changes in women resulted in decreased sexual interest and sexual satisfaction among their husbands, but such was not the case with regard to men's weight gain and wife's sexual interest.

The results of the current study highlight the importance of women's body weight and facial attractiveness in sexual desirability to men before marriage. Note that there may be a threshold with regard to body size and attractiveness beyond which having sexual experience is more likely but increasing degrees of sexual experience are not more likely. That is, although body size and attractiveness were related to virginity status (see Table 2), BMI and experimenter-rated attractiveness were unrelated to lifetime number of sexual intercourse partners among nonvirgins (see Table 5).

Because it appears that links between body size and relationship status and sexual experience may be due to a relative lack of interest by potential partners, does this mean that body image is unimportant? Experimenter ratings of facial attractiveness were only weakly related to respondents' self-ratings ($r = .18$, ns). Yet, these self-ratings of facial attractiveness were positively related to lifetime number of sex partners among nonvirgins and positively related to sexual esteem scores for the entire sample. It is interesting that women relatively high in sexual esteem were not objectively thinner or rated as more attractive, yet they believed themselves to be more attractive. Women with relatively high sexual esteem were less likely to avoid social settings in which their physical appearance might be a focus. It appears that sexual esteem for women is at least partially based on a sense of confidence in one's own physical attractiveness. Perhaps women who view themselves as relatively more attractive have greater confidence in heterosexual interactions and accumulate relatively greater numbers of sex partners as a result (Trapnell et al., 1997), thus leading to increased sexual esteem. Male attention and/or sexual experience may also lead to increased self-perceptions of attractiveness, perhaps through feedback by sexual partners or the inference that one must be relatively attractive if she is sought after by men.

With regard to body image, it is interesting that general body dissatisfaction (as measured by the EDI) was unrelated to dating and sexual experience. Relatively high levels of body dissatisfaction have become more or less normative for women in the United States (Rodin et al., 1984; Silberstein et al., 1987). The normative nature of body dissatisfaction may wash out any potential relationships between that aspect of body image and heterosexual experience. Appearance orientation was also generally unrelated to heterosexual experience. Similarly, general avoidance of social settings due to self-consciousness about one's appearance was unrelated to heterosexual experience.

Despite the relative lack of findings for the body-image variables, self-consciousness over one's *sexual attractiveness* may be a mediating factor in relationships between women's body size, body image, and heterosexual experience. For example, it is interesting that the only noteworthy correlate of fellatio experience in the current study was experimenter-rated facial attractiveness (see Table 3). One explanation is that women rated as more attractive may have greater male attention and dating experience, leading to increased likelihood of performing fellatio at some point.

Experimenter-rated facial attractiveness demonstrated a similar relationship to sexual intercourse experience (along with BMI; see Table 2). However, with regard to cunnilingus, BMI and *self-rated bodily attractiveness* were the only noteworthy correlates (see Table 4). Because receiving oral sex involves exposing one's genitalia and midsection (at least) to a partner, and the focus of the activity is the woman's body, self-consciousness over bodily attractiveness may be a primary determinant of whether young women are comfortable enough to allow cunnilingus.

The results of the current study are not definitive. As many of the data in the current study were derived from self-reports, the extent of response bias due to social desirability and other factors remains unknown. In addition, the results of the current study (which are based on young, White college students) cannot be generalized to more mature women or to those who differ with regard to ethnicity, educational level, and socioeconomic background. College women may represent a relatively restricted range in the body-size spectrum, even when compared to the larger population of women their own age. That is, obesity is related to relatively lower socioeconomic status (Sobal & Stunkard, 1989) and, compared to parents of daughters who are not overweight, parents of overweight daughters are less likely to financially support college attendance (Crandall, 1995). For these reasons, further research is needed involving more mature samples drawn from the larger community. One could speculate that body size has a cumulative effect on sexual experience among single women such that an older sample might show even larger differences in sexual experiences between normal weight and overweight women.

Qualitative studies suggest that body size and body image play important roles in the sexuality of women (Daniluk, 1993), and that body size and body image may interact with certain characteristics of women's intimate relationship partners, such as a critical stance toward the overweight female partner (Margolin & White, 1987; Stuart & Jacobson, 1987). Additional questions remain. For example, are there relationships between attractiveness, body image, and sexual experience among lesbian women given that this subculture may place relatively less emphasis on physical attractiveness (Heffernan, 1994; Siever, 1994)? Does body image influence women's sexuality as a function of women's adherence to traditional gender roles (Martz, Handley, & Eisler, 1995)? Are there relationships between body image and sexual experience that are mediated by a history of physical or sexual abuse (Andrews, 1995)? These and other related questions remain for future research. However, it appears that, to understand women's sexuality fully, issues of physical attractiveness, body size, and body image must be considered.

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