

Sexual Orientation and Gender as Factors in Socioculturally Acquired Vulnerability to Body Dissatisfaction and Eating Disorders

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This study investigated the hypothesis that gay men and heterosexual women are dissatisfied with their bodies and vulnerable to eating disorders because of a shared emphasis on physical attractiveness and thinness that is based on a desire to attract and please men. Although men place priority on physical attractiveness in evaluating potential partners, women place greater emphasis on other factors, such as personality, status, power, and income. Therefore, lesbians and heterosexual men are less concerned with their own physical attractiveness and, consequently, less dissatisfied with their bodies and less vulnerable to eating disorders. Several instruments measuring body satisfaction, the importance of physical attractiveness, and symptoms of eating disorders were administered to 250 college students. The sample included 53 lesbians, 59 gay men, 62 heterosexual women, and 63 heterosexual men. Multivariate and univariate analyses of variance were used to examine the differences among the scores of lesbians, gay men, heterosexual women, and heterosexual men on these various constructs. The results generally confirmed the research hypothesis. The implications and ramifications these findings have for the understanding of both the psychology of lesbians and gay men and the prevention and treatment of eating disorders are discussed.

Our society places enormous value on being physically attractive in general and on being thin in particular. Extreme stigmatization confronts those who are regarded as obese. Studies have shown that, although these attitudes affect people of all ages and both genders, these social norms are applied much more rigorously to women than men (Canning & Mayer, 1966; Goldblatt, Moore, & Stunkard, 1965). Consequently, most women in our society are dissatisfied with their bodies and perceive themselves to be overweight regardless of the accuracy of this assessment (Rodin, Silberstein, & Striegel-Moore, 1985; Wooley & Wooley, 1984). Studies have consistently shown that satisfaction with one's body is highly correlated with self-esteem (Franzoi & Shields, 1984; Lerner & Karabenick, 1974;

Secord & Jourard, 1953). In addition, many observers have suggested that the enormous pressure placed on women to be physically attractive puts them at increased risk for developing eating disorders (Boskind-Lodahl, 1976; Bruch, 1973; Garfinkel & Garner, 1982; Striegel-Moore, Silberstein, & Rodin, 1986).

It has been suggested that the gay male subculture imposes similarly strong pressures on gay men to be physically attractive. Gay men, like women, experience extreme pressure to be eternally slim and youthful looking and therefore also are likely to be dissatisfied with their bodies. Despite the frequency with which this observation has been made (Altman, 1982; Clark, 1977; Kleinberg, 1980; Lakoff & Scherr, 1984; Millman, 1980), empirical investigation of this phenomenon has occurred only recently. Several researchers (Berscheid, Walster, & Bohrnstedt, 1972, 1973; Herzog, Newman, & Warshaw, 1991; Sergios & Cody, 1985/86; Silberstein, Mishkind, Striegel-Moore, Timko, & Rodin, 1989; Yager, Kurtzman, Landsverk, & Wiesmeier, 1988) have conducted empirically based studies that investigated the importance of physical appearance for gay men and confirmed the impression that physical attractiveness is highly valued by gay men.

This emphasis on being physically attractive in the gay male subculture and the consequent body dissatisfaction experienced by gay men seems likely to result in a vulnerability to anorexia nervosa and bulimia nervosa (Herzog, Norman, Gordon, & PePOSE, 1984; Striegel-Moore et al., 1986). Several studies of men with eating disorders have found that a disproportionately high number of these men are gay or experiencing conflict over their sexual orientation (Crisp, 1967; Crisp & Toms, 1972; Dally, 1969; Herzog et al., 1984; Schneider & Agras, 1987). Recent empirical research comparing nonclinical samples of gay and heterosexual men have concluded that this heightened emphasis on appearance in the gay male subculture does indeed increase the vulnerability of gay men to both body dissatisfac-

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tion and the attitudes and behaviors associated with eating disorders (Herzog et al., 1991; Silberstein et al., 1989; Yager et al., 1988).

Little attempt has been made, however, to explain the reasons for this heightened emphasis on physical appearance in the gay male subculture or explore what common elements might produce this emphasis on being physically attractive for both gay men and heterosexual women. One explanation is the desire of both groups to attract and please men (Hatfield & Sprecher, 1986). Numerous studies have shown that men are more concerned than women with the physical attractiveness of a potential partner (Coombs & Kendell, 1966; Stroebe, Insko, Thompson, & Layton, 1971; Vail & Staudt, 1950). Thus, both gay men and heterosexual women may strive to be physically appealing to attract a desirable mate.

If the sexual objectification experienced by gay men and heterosexual women is a factor in their shared concern for being physically attractive, consequent body dissatisfaction, and vulnerability to eating disorders, lesbians and heterosexual men are likely to be less dissatisfied with their bodies and less vulnerable to eating disorders. Although physical attractiveness is of primary importance to men in their assessment of a potential partner, women place a higher value on other features, such as personality, status, power, and income (Hatfield & Sprecher, 1986). Because physical appearance is less essential in attracting a female partner, heterosexual men and lesbians are subject to less pressure to be physically attractive.

Although there has been extensive research comparing body satisfaction and its correlates between heterosexual women and men and some recent studies comparing gay and heterosexual men, there have been few empirical investigations that examined lesbians and their attitudes toward physical attractiveness, their body satisfaction, or the prevalence of eating disorders. Lesbian subculture has been described as downplaying, even actively resisting the dominant cultural value placed on beauty for women (Blumstein & Schwarz, 1983; Brown, 1987). Dworkin (1988), on the other hand, argues that lesbians, like all women in this society, are socialized to consider their appearance a primary aspect of their lives and must conform to traditional standards of beauty for social acceptance.

Striegel-Moore, Tucker, and Hsu (1990) measured body satisfaction, disordered eating, and self-esteem in small samples of lesbian and heterosexual female college students and found statistically significant differences in general psychological distress but not in body satisfaction or eating disorders. The higher level of psychological distress found in the lesbian sample did not reach a clinical level and was, the authors suggested, more likely attributable to living in a homophobic, heterosexist society than to emotional disturbance associated with eating disorders. Concerns about physical condition and weight as assessed by a measure of body esteem were equally related to self-esteem in the lesbian sample, whereas only weight concerns were related to self-esteem in the heterosexual female sample. The authors did find a nonsignificant trend indicating lesbians diet less and binge more than heterosexual women, but the incidence of purging was too infrequent in their sample for analysis. They did not directly measure attitudes toward the importance of appearance and physical attractiveness.

Brand, Rothblum, and Solomon (1992) assessed weight con-

cerns and disordered eating in samples of lesbians, gay men, and heterosexual women and men and concluded that body dissatisfaction and the attitudes and behaviors associated with eating disorders appeared to be more related to gender than sexual orientation. Unfortunately, their samples were so highly disparate that it is difficult to evaluate the validity and reliability of the conclusions. The sample sizes ranged from 133 heterosexual women to 13 gay men, the lesbian and gay male subjects mostly were in their 30s and no longer in school, and the heterosexual female and male subjects were college students in their late teens. Although the gender effects were more frequent and of greater magnitude than effects of sexual orientation, significant interactions between gender and sexual orientation were found with the difference between subjects' self-reported ideal weights and life insurance normed weights and with a single-item measure of preoccupation with weight.

The purpose of the present study was to investigate beliefs about the importance of physical attractiveness, body satisfaction, and eating attitudes and behaviors in equivalent samples of lesbians, gay men, and heterosexual women and men. The hypothesis was that heterosexual women, because of sexual objectification by men, would show the strongest belief in the importance of their own physical attractiveness, the greatest dissatisfaction with their bodies, and the highest frequency of attitudes and behaviors that typify eating disorders. It was predicted that gay men, because of a similar experience of sexual objectification, would resemble heterosexual women more than heterosexual men in the importance they place on their own physical attractiveness, their dissatisfaction with their bodies, and their eating attitudes and behavior. In contrast, because both lesbians and heterosexual men experience less sexual objectification, it was predicted that lesbians would resemble heterosexual men more than heterosexual women, with less emphasis on being physically attractive, less body dissatisfaction, and fewer attitudes and behaviors associated with eating disorders.

Method

Subjects

Two hundred fifty students from the University of Washington (UW) and Seattle Central Community College (SCCC) participated in this study. The total sample included 53 lesbians (21.2%), 59 gay men (23.6%), 62 heterosexual women (24.8%), and 63 heterosexual men (25.2%).¹ Heterosexual female and male subjects were recruited from the UW Psychology Department's Human Subject Pool and from several classes at SCCC. In addition to a few lesbians and gay men obtained through this process, lesbian and gay male subjects were specifically recruited from lesbian and gay student organizations on both campuses and through class announcements, flyers, and advertisements in both campus newspapers. Lesbian and gay male students from the UW and SCCC were also recruited through lesbian and gay bars and community

¹ Subjects were asked to identify their sexual orientation on an 8-point Kinsey-type scale: *exclusively heterosexual* (1), *primarily heterosexual* (2), *more heterosexual than homosexual* (3), *bisexual* (4), *more homosexual than heterosexual* (5), *primarily homosexual* (6), *exclusively homosexual* (7), and *asexual* (8). The 12 subjects (4.8% of the total sample) who selected *bisexual* and 1 subject (0.4%) who chose *asexual* were not included in the analyses of the data.

organizations and advertisements in local lesbian and gay newspapers. Recruitment materials described the study as investigating "attitudes about eating, dieting, exercise, physical attraction, and your body."

Most subjects identified themselves as White (76.6%). Eighteen percent identified themselves as Asian, 2.4% as Native American, 2.0% as Latino, and 1.2% as African-American. Using the Hollingshead-Redlich method of assigning social class (Hollingshead & Redlich, 1958) in which Class 1 is the highest socioeconomic stratum and Class 5 the lowest, 3.6% were from Class 1, 11.7% from Class 2, 49.7% of subjects from Class 3, 25.4% from Class 4, and 9.6% from Class 5. The mean age for the lesbians was 28.13 ($SD = 5.84$); for gay men, 25.78 ($SD = 5.18$); for heterosexual women, 23.81 ($SD = 9.48$); and for heterosexual men, 21.79 ($SD = 6.75$). The Body Mass Index (BMI) was computed for all subjects. The BMI, weight divided by the square of height, is a measure commonly used for evaluation of weight status which, unlike the Metropolitan Life Insurance Height and Weight Tables, does not require knowledge of frame size (Metropolitan Life Insurance Company, 1983, 1984). The mean BMI for lesbians was 24.72 ($SD = 6.55$); for gay men, 22.67 ($SD = 3.29$); for heterosexual women, 22.04 ($SD = 3.80$); and for heterosexual men, 21.79 ($SD = 2.68$).

An analysis of variance (ANOVA) indicated significant age differences among the four groups, $F(3, 233) = 8.51, p < .000$, and subsequent multiple comparison tests indicated significant differences between several pairings of the groups. Lesbians were significantly older than both heterosexual women and men. Gay men were significantly older than heterosexual men. Differences among the four groups on the BMI were also significant, $F(3, 231) = 4.09, p < .01$, but subsequent multiple comparison tests indicated only that the lesbian group had a significantly higher mean BMI than any of the other groups.

Because the groups differed significantly by age and body mass, correlations of the research measures with age and with the BMI were computed for each group. Although these analyses indicated some relationships between age and BMI and several research measures, the relationships did not appear sufficiently confounding to prevent an analysis of between-group differences. Complete results of these analyses can be found in Siever's work (1988, 1990).

Procedure

All subjects completed a packet of self-report questionnaires that included the measures described below. Because of the potentially sensitive nature of some of the questions, participation in the study was totally anonymous.

Measures

Body Esteem Scale. Three versions of the Body Esteem Scale ([BES]; Franzoi & Herzog, 1986, 1987; Franzoi & Shields, 1984) were used to assess body satisfaction and attitudes about the importance of physical attractiveness. The BES comprises 35 items, all parts or aspects of the body (e.g., "appearance of eyes," "width of shoulders," "physical condition"). In the first version (BES-1), subjects were asked to rate on a 5-point scale how they felt about each part or aspect of their body with higher scores indicating greater satisfaction. In the second version (BES-2), subjects were asked to rate on a 5-point scale how much they thought each of the same 35 items mattered to potential sexual or romantic partners when evaluating the subject's attractiveness. Higher scores indicated subjects thought potential partners placed greater importance on physical attractiveness. The third version (BES-3) again presented the same items and asked the subject to rate on a 5-point scale how much each body part or function mattered to the subjects themselves in their evaluation of the physical attractiveness of potential sexual or romantic partners. Again, higher scores indicated subjects placed greater importance on a partner's physical attractiveness.

Physical Attractiveness Questionnaire. Five items were adapted

from the Body Image Survey (Berscheid et al., 1972) to form a brief Physical Attractiveness Questionnaire (PAQ) measuring the importance of physical attractiveness and appearance. On three items, subjects were asked to rate on a 6-point scale how important they thought physical attractiveness was (a) in day-to-day social interactions, (b) to them in their evaluation of a possible sexual or romantic partner, and (c) to potential partners. Lower scores indicated greater importance on physical attractiveness. The other two items presented subjects with seven factors, such as "Physical Appearance," "Intelligence," and "Personality," and asked them to rank them in the order of (a) their importance to them in selecting a partner and (b) how they thought potential partners would rank their importance. Again, lower scores indicated greater importance of physical appearance. Cronbach's alpha for the PAQ was .66; item-total correlations ranged from .50 to .39.

Body Shape Questionnaire. The Body Shape Questionnaire ([BSQ]; Cooper, Taylor, Cooper, & Fairburn, 1987) assesses concerns about body shape. Subjects responded to 34 items, such as "Have you pinched areas of your body to see how much fat there is?" and "Have you avoided wearing clothes which make you particularly aware of the shape of your body?" on a 6-point scale with higher scores indicating greater body dissatisfaction. Some changes in the wording of items was necessary because this questionnaire was developed and validated entirely with British women and several items were either gender-biased or contained British phrases. None of the word changes significantly altered the content or meaning of the items.

Body size drawings. Stunkard, Sorensen, and Schulsinger (1980) developed two sets of figure drawings, one male, one female, for obesity research. Each set of drawings contains nine figures on a continuum ranging from *extremely thin* (1) to *very obese* (9). Subjects were asked to indicate which drawing best matched their current figure and their ideal figure.

Eating Disorder Inventory. Garner, Olmsted, and Polivy (1983) developed the Eating Disorder Inventory (EDI) to assess the psychological and behavioral traits of anorexia nervosa and bulimia nervosa. The EDI contains eight subscales, three of which were used in this study. Subjects completed the Drive for Thinness, Bulimia, and Body Dissatisfaction subscales which together totaled 23 items. Subjects rate items such as "I feel extremely guilty after overeating" and "I eat or drink in secrecy" on a 6-point scale.

The original scoring method gives the most pathological response a score of three, the second most extreme response a two, the next response a one, and zero to the remaining three responses. As noted by Ollendick and Hart (1986), although this scoring method may be logical for a screening instrument, it is not appropriate for epidemiological studies as it collapses the three responses most likely to be endorsed in a nonclinical population. It also creates a skewed distribution that makes the validity of any statistical analysis questionable. For the statistical analyses in this study, all responses were considered meaningful and given a score from one to six with higher scores indicating a higher degree of pathology.

Eating Attitudes Test. The Eating Attitudes Test (EAT) was originally developed by Garner and Garfinkel (1979) as a clinical screening tool assessing attitudes and behaviors commonly found in people with anorexia nervosa, bulimia nervosa, or both. Subjects rate items such as "Am terrified of being overweight" and "Eat diet foods" on a 6-point scale. Garner, Olmstead, Bohr, and Garfinkel (1982) factor analyzed the original 40-item EAT and developed a 26-item version which, in addition to a total score, has three factor subscales: Dieting, Bulimia and Food Preoccupation, and Oral Control. The 26-item version of the EAT was used in this study. The original scoring method for the EAT, like that of the EDI, collapsed the three least extreme responses and gave them a score of zero. As with the EDI, to obtain a less skewed distribution, all responses in this study were considered meaningful and given a score from one to six with higher scores indicating greater pathology.

Table 1
Group Differences

Measure	Lesbians (<i>n</i> = 53)		Gay men (<i>n</i> = 59)		Heterosexual women (<i>n</i> = 62)		Heterosexual men (<i>n</i> = 63)		<i>F</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Importance of physical attractiveness									
BES-2	119.77 _a	18.29	129.85 _b	12.61	130.40 _b	16.13	127.82 _b	15.47	4.91**
BES-3	121.20 _a	22.29	127.89	14.42	130.75 _b	14.66	128.45	20.02	2.69*
PAQ	14.22 _a	2.99	12.25 _b	3.12	12.20 _b	3.15	11.43 _b	3.19	7.77**
Body satisfaction									
BES-1	122.19 _{b,c}	22.40	110.39 _a	20.77	116.05 _{a,b}	21.37	126.85 _c	22.59	6.14***
BSQ	89.00 _{a,b}	29.88	85.93 _b	34.48	99.59 _a	30.87	64.02 _c	23.23	15.57****
EDI Body Dissatisfaction	32.44 _b	10.01	27.36 _c	10.25	36.43 _a	8.89	23.39 _d	8.89	21.81****
BSD Current-Ideal Discrepancy ^a	0.86 _b	0.66	1.25 _a	0.71	0.96 _b	0.74	0.81 _b	0.77	4.34**
Weight Current-Ideal Discrepancy ^a	18.36 _a	27.33	12.80	12.17	13.04	16.82	8.96 _b	10.51	2.74*
Eating Disorders									
EAT total score	60.85 _b	14.22	64.19 _{a,b}	17.85	69.75 _a	16.76	54.26 _c	12.90	9.99****
EAT Dieting	34.46 _b	9.72	35.07 _b	12.94	39.46 _a	10.70	28.37 _c	9.27	11.21****
EAT Bulimia and Food Preoccupation	12.04	5.18	11.30	4.47	12.87 _a	5.36	10.06 _b	3.56	3.91**
EAT Oral Control	14.92 _a	3.73	18.09 _c	5.27	17.43 _{b,c}	3.90	16.10 _{a,b}	4.25	5.70***
EDI Drive for Thinness	18.76 _b	7.03	19.04 _b	9.17	23.43 _a	8.46	13.98 _c	5.70	14.90****
EDI Bulimia	15.44 _a	7.18	14.16	5.37	16.16 _a	5.80	12.18 _b	3.56	6.04***

Note. Means having the same subscript do not differ significantly. Means with no subscript are not significantly different from any of the other means. The Newman-Keuls multiple comparisons test was used with significance criterion set at $p < .05$. BES-2 = Body Esteem Scale, Version 2; BES-3 = Body Esteem Scale, Version 3; PAQ = Physical Attractiveness Questionnaire; BES-1 = Body Esteem Scale, Version 1; BSQ = Body Shape Questionnaire; EDI = Eating Disorder Inventory; EAT = Eating Attitudes Test.

^a Absolute value of difference scores.

* $p < .05$. ** $p < .01$. *** $p < .001$. **** $p < .0001$.

The test was also scored by the original method to determine how many subjects' scores fell above the clinical cutoff.

Demographic and general information questions. In addition to standard demographic questions, subjects were asked their height, current weight, ideal weight, and whether they considered themselves underweight, average, or overweight.

Results

Examination of Differences Among the Groups

For all analyses, the research measures were grouped into three categories: (a) measures assessing the importance of physical attractiveness—the BES-2, BES-3, and PAQ; (b) measures assessing body satisfaction or dissatisfaction—the BES-1, BSQ, Body Dissatisfaction Subscale of the EDI, and discrepancy scores derived from the differences between current and ideal choices on the BSD and current and ideal weights from the demographic questions; and (c) measures assessing attitudes and behaviors associated with eating disorders—the EAT-26 and the Drive for Thinness and Bulimia Subscales of the EDI.

Differences among the means of the lesbian, gay male, heterosexual female, and heterosexual male groups were examined using multivariate and univariate analyses. Mean scores and standard deviations for each group, the *F* value resulting from univariate ANOVAs, and the results of subsequent multiple comparison tests are presented in Table 1.

Importance of physical attractiveness measures. A multi-

variate ANOVA (MANOVA) performed on the BES-2, BES-3, and PAQ revealed significant differences among the four groups, $F(9, 475) = 2.81, p < .01$. As can be seen in Table 1, subsequent univariate analyses indicated significant differences among the groups on all three measures. Multiple comparison tests indicated that the lesbian group means were significantly lower than the means of all other groups on the BES-2, significantly higher than all other groups on the PAQ, and significantly lower than the heterosexual female group mean on the BES-3, indicating that lesbians are less concerned with physical appearances than any of the other groups.

Body satisfaction measures. A MANOVA performed on the BES-1, the BSQ, and the EDI Body Dissatisfaction Scale revealed significant differences among the four groups, $F(9, 494) = 14.49, p < .001$. Univariate ANOVAs then were performed on these three measures and on the current-ideal BSD discrepancy scores and the current-ideal weight discrepancy scores. Young men, unlike women, are as likely to perceive themselves as too thin as they are to perceive themselves as overweight (Drewnowski & Yee, 1987). Young men who consider themselves too thin are less interested in gaining weight per se than in becoming more muscular and equate muscularity with added weight. Therefore, the BSD and weight discrepancy scores were converted to their absolute value to reveal the degree of body dissatisfaction regardless of direction (i.e., regardless of whether the subject wished to be thinner or heavier). As can be seen in Table 1, significant differences among the groups were found

on all the body satisfaction measures and subsequent multiple comparison tests indicated significant differences between several pairings of the groups.

Heterosexual men had the highest mean scores on the BES-1 and lowest mean scores on the BSQ and EDI Body Dissatisfaction Subscale, indicating the lowest level of body dissatisfaction. The pattern of results for the other groups appears to be related to the origins of the measures. On the BSQ and the EDI Body Dissatisfaction Scale, both measures developed and validated with female samples, heterosexual women had the highest means, indicating highest body dissatisfaction, whereas on the BES-1, which was developed with samples of both women and men, gay men had the lowest mean (although not significantly lower than heterosexual women), indicating low body esteem. Lesbians had the second highest means on both measures derived from eating disorders research (indicating high body dissatisfaction), but were the second highest (high body satisfaction) on the BES-1.

The current-ideal BSD and weight discrepancy scores revealed a similar picture of body satisfaction among the groups. Heterosexual men had the lowest means on both discrepancy scores again suggesting that they are the least dissatisfied with their bodies. Gay men had the highest mean on the BSD discrepancy score, significantly higher than all other group means indicating high body dissatisfaction. Although lesbians had the highest mean on the weight discrepancy score, significantly higher than heterosexual men, this may merely reflect the fact that the lesbian sample had the highest mean BMI.

It is noteworthy that, although not always statistically significant, there is a consistent trend in these scores. Although statistically different only on the EDI Body Dissatisfaction Scale, on four of the five measures of body dissatisfaction, the lesbian group means indicated lower body dissatisfaction than those of the heterosexual female group. The means of the gay male group indicated higher body dissatisfaction than those of the heterosexual male group across all five measures and significantly so on four of the five measures.

Eating disorders measures. A MANOVA performed on the Dieting, Bulimia and Food Preoccupation, and Oral Control Subscales of the EAT, and the Drive for Thinness and Bulimia Scales of the EDI indicated significant group differences, $F(15, 561) = 3.72, p < .001$. The results of subsequent univariate analyses and multiple comparison tests with these scales and the total score of the EAT-26 can be found in Table 1. As can be seen, all the univariate analyses indicated significant differences among the group means.

Examination of the group means and the results of the multiple comparison tests reveal a pattern of means similar to that discussed earlier. The heterosexual male group means were the lowest on all but one of the measures. On the EAT Oral Control Subscale, the heterosexual male group mean was not significantly different from the lower mean of the lesbian group. The heterosexual female group means were the highest on all but one of the measures. On the Oral Control Subscale of the EAT, the heterosexual female group mean was not significantly different from the higher mean of the gay male group. The lesbian group means were lower than those of the heterosexual women on all of the measures and this difference was statistically significant with four out of the six measures. Similarly, the

gay male group means were higher than those of the heterosexual men on all six measures and significantly so in the same four cases.

The total score of the EAT was then rescored by the original method to determine how many subjects in each group obtained scores above the clinical cutoff, which would suggest possible clinical level of eating disorders. The differences between the groups were striking. Only two lesbians and two heterosexual men scored above the cutoff. Nine gay men and eight heterosexual women scored in the clinical range. This represents 4.2% of the lesbian sample, 3.4% of the heterosexual male sample, 13.8% of the heterosexual female sample, and 16.7% of the gay male sample.

Discussion

The differences among the lesbians, gay men, and heterosexual women and men in this study were highly significant and appear to confirm the research hypotheses. It seems clear that the substantial differences among the four groups in the importance placed on physical attractiveness, in the degree of body satisfaction, and in the frequency of attitudes and behaviors associated with eating disorders are related to an interaction of the subjects' gender and sexual orientation. These differences can be explained by the degree to which people experience sexual objectification by their sexual or romantic partners.

There were clear differences in the importance that the groups placed on physical attractiveness that were consistent with the hypothesis that sexual objectification results in a heightened concern for physical attractiveness. Lesbians were the least concerned about physical attractiveness. Relative to the other groups, they said that it was neither important to them in their evaluations of their partners nor did they think it important to their partners. Gay men and heterosexual women, on the other hand, showed a much higher concern for physical attractiveness. They were more concerned with the physical appearance of their partners than lesbians and thought that their own physical appearance was more important to their male partners.

The results for heterosexual men were less clear and perhaps reflect changing cultural standards. Heterosexual men placed the greatest importance on the physical appearance of their female partners, yet their perceptions of how important physical appearance is to their female partners were somewhat inconsistent. This may reflect the recent trend toward increased pressure on men to be physically attractive (Mishkind, Rodin, Silberstein, & Striegel-Moore, 1986). This increasing sexual objectification of men is apparent from an observation of popular culture. One now sees products being sold with images of lean, muscular, scantily clad young men almost as often as with slender, scantily clad young female models. Cash, Winstead, and Janda (1985, 1986) found that, although women still face greater pressure than men to be physically attractive and continue to be more dissatisfied with their bodies, this pressure for the "perfect" body is increasing for both genders. Despite this growing pressure on men to be physically attractive, heterosexual men still appear less concerned with their appearance than gay men. Silberstein et al. (1989) also found that gay men reported physical appearance more important to their sense of

self compared to heterosexual men, whereas heterosexual men considered being physically active more important to their sense of self.

The data on body satisfaction appear also to confirm the hypothesis that sexual objectification results in body dissatisfaction. Heterosexual men are clearly the least plagued by doubts and complaints about their bodies. In research conducted with presumably heterosexual populations, it has been found that men are likely to evaluate their bodies in terms of effectiveness and that women evaluate their bodies primarily in terms of appearance (Lerner & Karabenick, 1974; Lerner, Orlos, & Knapp, 1976). Thus, whereas heterosexual men are most likely to view their bodies as tools with which to compete with each other through strength and athletic prowess, heterosexual women are more likely to view their bodies as objects for aesthetic evaluation and are constantly forced to compare their bodies with the sylphlike models, actresses, and beauty pageant contestants presented regularly in the media.

Gay men, who are also likely to view their bodies as sex objects with which to attract men, are, like heterosexual women, more prone to body dissatisfaction. The finding that gay men are significantly more dissatisfied with their bodies than heterosexual men corroborates previous research (Herzog et al., 1991; Silberstein et al., 1989; Yager et al., 1988). In fact, in this study, it appears that gay men may be even more unhappy with their bodies than heterosexual women. Perhaps this is due to the potential for gay men to be dissatisfied with their bodies on two dimensions. Like heterosexual men, they may worry that their bodies are inadequate in terms of strength and athletic prowess, and, like heterosexual women, they may doubt their physical attractiveness. This may also be related to the fact that the gay men in this sample were older and may be holding on to an unrealistically youthful ideal for their bodies.

The significantly higher mean BMI of the lesbians in this sample may have contributed to the lack of statistically significant differences between lesbians and heterosexual women on most of the body satisfaction measures. Although the differences were not statistically significant, there was, however, a consistent trend on almost all the body satisfaction measures for lesbians to be, despite their higher mean body mass, less dissatisfied with their bodies than heterosexual women. Only on the weight discrepancy scores did lesbians, who were significantly heavier, indicate more body dissatisfaction than heterosexual women.

The prediction that heightened concern for physical attractiveness and consequent body dissatisfaction would lead to increased vulnerability to eating disorders was also confirmed in this study. As predicted, heterosexual women generally scored the highest on the eating disorders scales and heterosexual men scored the lowest. Lesbians generally reported a lower frequency of the attitudes and behaviors associated with eating disorders than heterosexual women, with the differences reaching statistical significance on two-thirds of the scales. Gay men consistently reported a higher frequency of these attitudes and behaviors than heterosexual men. This confirmation of predicted differences is especially noteworthy considering that the lesbians in this sample were significantly heavier than the heterosexual women. It appears that the lesbians in this sample, despite being larger and dissatisfied with their weight, were less likely to

express their weight concerns with the dysfunctional attitudes and behaviors associated with eating disorders.

The numbers and proportions of subjects in each group that fell above the clinical cutoff on the EAT also provide confirmation of the predicted group differences. With heterosexual women and men, these figures are consistent with those found in other studies that used the EAT with school-age populations. The percentages of presumably heterosexual women who scored above the cutoff have ranged from a high of 22% (Leichner, Arnett, Rallo, Srikaneswaran, & Vulcano, 1986) to a low of 6% (Button & Whitehouse, 1981) with most falling around 11% to 12%. There are far fewer studies that have included male subjects, but the percentage of men, again presumably heterosexual, whose scores were above the cutoff in those few studies ranged from 6% in Leichner et al.'s study to 0% in Button and Whitehouse's study.

The results of this study lend further weight to the growing body of research that points to sociocultural variables as significant risk factors for the development of anorexia nervosa and bulimia nervosa. Substantial literature already exists on the sociocultural variables that put heterosexual women at particular risk for eating disorders (Boskind-Lodahl, 1976; Bruch, 1973; Garfinkel & Garner, 1982; Striegel-Moore et al., 1986). Several recent studies have shown that men who must maintain a certain weight, such as athletes, dancers, and models, have a higher frequency of the attitudes and behaviors associated with eating disorders (Enns, Drewnowski, & Grinker, 1987; King & Mezey, 1987; Rodin et al., 1985). This study, along with that of Yager et al. (1988), confirms previous speculation that the heightened emphasis on physical attractiveness in the gay male community place gay men at increased risk for the development of disordered eating attitudes and behaviors, and it appears from the lesbian sample in this study that sociocultural factors can have an immunizing effect—lesbians, because of a decreased emphasis on physical appearance in their community, appear to be less vulnerable to the attitudes and behaviors that typify eating disorders.

Although the results of this study appear to strongly confirm the research hypotheses, some methodological problems are notable. The need for an alternate scoring method for both the EAT and the EDI points to the problems with the epidemiological use of scales developed and validated on clinical populations. The necessity of devising a different scoring method for the EAT and the EDI call into question the statistical validity of much of the previous epidemiological research that has been done with these measures. Several of the statistical analyses performed in this study were rerun using the original scoring method for the EAT and the EDI and, although there were still differences among the groups, the magnitude and frequency of statistically significant effects was greatly reduced.

In addition, the exclusive use of women for the development and validation of the EAT, EDI, and BSQ raises the question of the validity of their use with men. Although the wording of some items were changed in this study for this specific reason, it is difficult to determine to what extent gender bias remained. Turnbull, Freeman, and Annandale (1987) found that their sample of bulimic men would have been missed if the EAT or EDI had been used for screening; None of the men in their sample scored above the cutoff on the EAT and their EDI scores

were more similar to those of "normal" women than women with eating disorders. They attributed the relatively low scores of their male bulimic subjects to the gender bias of these instruments. If gender bias in these scales tends to depress scores for men, further research is needed to determine if and why gay men are less effected by this bias.

Another problem that must be noted is the inevitable difficulty of self-report measures. It is entirely possible that much of the difference between groups is the result of response sets on the part of the groups. Heterosexual men may have scored lower on many of the scales because of a tendency to downplay negative feelings or greater reluctance to admit to dysfunctional attitudes. The scores of the lesbian group may reflect a political stance in the lesbian community rather than indicate true attitudes and behaviors. A feminist political perspective on resisting sexual objectification and the oppression of the obese may have colored the responses of many of the lesbians in this sample. Many of the comments written in the margins of the questionnaire by lesbian subjects suggest that this may have played a role in the way that they answered items.

In their study of lesbian college students, Striegel-Moore et al. (1990) used two comparison groups of heterosexual women: one recruited from women's studies courses, the other recruited from the psychology department's subject pool. The authors assumed that the group drawn from women's studies classes were more feminist than the group drawn from the subject pool and shared a feminist perspective with the lesbian students, but unfortunately did not attempt to empirically verify this assumption. With this rudimentary attempt to control for degree of feminist thinking, all the differences found were an effect of sexual orientation, not presumed degree of feminism. Future research should more effectively address response sets based on feminism as well as gender-based response styles.

Some of these problems and methodological differences may contribute to the discrepancy between the findings in the present study and the results in other similar studies. Striegel-Moore et al. (1990) found no statistically significant difference between small samples of lesbian and heterosexual female college students on body esteem, but it is difficult to make direct comparisons because they used BES subscale scores rather than the total score. The BES subscales were not used in the present study as Franzoi and Shields (1984) used separate factor analyses to create different subscales for women and men. These subscales, therefore, could not be used to compare across all four groups. It is noteworthy, however, that, in Striegel-Moore et al., the Weight Concern and Physical Condition subscales of the BES were equally related to a measure of self-esteem for the lesbian sample, whereas only the Weight Concern Subscale was related to self-esteem for the heterosexual female sample.

Striegel-Moore et al. (1990) also found no statistically significant difference between lesbians and heterosexual women on disordered eating. They, however, grouped the Drive for Thinness and Body Dissatisfaction Scales of the EDI with the BES subscale scores in a MANOVA and, because the MANOVA was nonsignificant, did not report any univariate statistics. They grouped the Bulimia Scale of EDI with two single-item measures of the frequency of dieting and binge eating in a MANOVA and, again, because of nonsignificance, did not report univariate statistics. As previously mentioned, their sample

sizes were so small that the incidence of purging did not allow for analysis. They did not directly measure attitudes toward the importance of appearance and physical attractiveness, nor did they assess subjects' weight status or the difference between subjects' actual and ideal weights.

Brand et al. (1992) compared lesbians, gay men, and heterosexual women and men on weight concerns and disordered eating and found a greater magnitude and frequency of gender main effects than sexual orientation main effects. Again, direct comparisons are difficult because Brand et al. measured weight concerns rather than body esteem and used different statistical techniques to analyze their data. They performed a 2 (Gender) \times 2 (Sexual Orientation) analysis of covariance and reported main and interaction effects but not group means. Additionally, as previously discussed, their samples were so different in terms of size, origin, age, and educational status that it is difficult to evaluate the generalizability of the results.

Although the findings in this study that gay men indicate a heightened concern with physical attractiveness and greater body dissatisfaction are consistent with previous research comparing gay and heterosexual men (Herzog et al., 1991; Silberstein et al., 1989; Yager et al., 1988), there have not been consistent results indicating a greater frequency of attitudes and behaviors associated with eating disorders among gay men. Silberstein et al. found that gay men did not score significantly higher than heterosexual men on the EAT and that the same number of gay men as heterosexual men scored in the clinical range on the EAT. They did, however, report that gay men who wished to be thinner had higher scores on the EAT. Whereas Yager et al. (1988) found significant differences between gay and heterosexual male college students on several of the EDI scales, Herzog et al. (1991) did not find significant differences between gay and heterosexual men on EDI scales.

More research is necessary to obtain a clearer, more consistent picture of the differences or lack thereof between lesbians and heterosexual women and between gay and heterosexual men. Future research needs to examine to what extent these discrepant findings are the result of the previously discussed scoring method problem with the EAT and the EDI, the most commonly used measures of the attitudes and behaviors associated with eating disorders, but other issues also need to be addressed. None of the research thus far has looked at possible relationships between the value placed on appearance, body satisfaction, dysfunctional eating attitudes and behaviors and stages of coming out, self-acceptance, internalized homophobia and heterosexism, and assimilation into the lesbian and gay communities in samples of lesbians and gay men. Some of the differences in the findings in this research literature may be the result of differences on these variables among the lesbian and gay male samples. Many of the lesbians in this study, for example, made comments in the margins of the questionnaires indicating that they had experienced greater difficulty with body satisfaction and dysfunctional eating before they had come out. It is possible that lesbians and gay men begin to look more different from their heterosexual counterparts as they become more assimilated into the lesbian and gay subcultures and gain a greater acceptance of themselves as lesbians and gay men. This study suggests that this assimilation process may produce different results for lesbians and gay men with lesbians becom-

ing less dissatisfied with their bodies and gay men becoming more obsessed with their appearance.

Although these and other methodological problems need to be addressed in further research in this area, the results of this study were dramatic enough to provide substantial support for the hypothesis that sexual objectification results in an increased emphasis on physical attractiveness, greater body dissatisfaction, and increased vulnerability to eating disorders. The results of this study enhance our understanding of the individual psychological ramifications of our culture's obsession with youth and beauty. They elucidate the ways in which sexual objectification operates within the lesbian and gay subcultures and the dominant heterosexual culture. They point to the need for attempts to reduce the emphasis on appearance and beauty in our culture that appears, if anything, to be increasing and may be causing emotional distress in ever greater numbers of people.

These results are also important specifically in the prevention and treatment of eating disorders. Although there are undeniably many important individual psychological factors in the development of eating disorders, these occur in a sociocultural context that places inflated value on youth and beauty and encourages the obsession with dieting and weight loss that is the hallmark of anorexia and bulimia. Failure to acknowledge the sociocultural context of these disorders leading to disproportionate or exclusive emphasis on emotional aspects may actually be detrimental to the treatment of these disorders. Changes in our cultural values will be important in counteracting both the "normative discontent" (Rodin et al., 1985, p. 267) that most heterosexual women and gay men feel about their bodies and the growing incidence and prevalence of eating disorders in these two groups.

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