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Article in Body image - June 2004
DOI: 10.1016/j.bodyim.2004.01.002 · Source: PubMed

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Does body satisfaction differ between gay men and lesbian women and heterosexual men and women?
A meta-analytic review

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Received 28 August 2003; received in revised form 7 January 2004; accepted 9 January 2004

Abstract

Studies investigating body image satisfaction among groups of different sexual orientations (i.e., gay men, lesbian women, and heterosexual men and women) have produced equivocal findings. To synthesise the available research, 27 studies (20 published and 7 unpublished) were meta-analysed (N = 5220). Comparisons between heterosexual (n = 1397) and gay men (n = 984) produced a small effect size, with the former being slightly more satisfied with their bodies. An even smaller difference was observed for studies comparing heterosexual (n = 1391) and lesbian women (n = 1448), with greater levels of body satisfaction being evidenced by the latter group. Tests of homogeneity for each effect size were found to be highly significant. In an attempt to identify variables that may be responsible for the observed heterogeneity, the following categorical factors were assessed: the measures used to evaluate body satisfaction, date of study (1980s versus 1990s+), publication status (published or unpublished), and body weight. The results of this exploratory search for potential moderator variables as well as limitations of the current meta-analysis are discussed.

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Keywords: Body image; Male homosexuality; Female homosexuality; Lesbian; Gay men; Psychosexual behaviour

Introduction

Body image may be conceptualised as a composite of how individuals “think, feel, and behave with regard to their own physical attributes” (Muth & Cash, 1997, p. 1438). Therefore, it is a multidimensional construct possessing evaluative and investment components. The former reflects an individual’s assessment about his or her physical appearance usually along a satisfaction/dissatisfaction continuum (Cash,
The latter denotes the varying affect-laden cognitions an individual has about his or her body, as well as the behaviours an individual engages in to maintain or enhance physical appearance (Cash, 2002; Cash & Syzmanski, 1995).

A number of studies have been conducted to identify factors that contribute to variations in body image evaluation and/or investment. One organismic variable that has received considerable attention in the literature is sexual orientation. Unfortunately, a coherent picture of whether gay men and lesbian women differ from their heterosexual peers in terms of body attitudes and behaviours has yet to emerge. The purpose of the current study is to review systematically, through meta-analysis, the extant literature on sexual orientation and one specific aspect of body image evaluation; namely, body satisfaction.

Although some studies have found that body image evaluation and/or investment do not vary as a function of sexual orientation (e.g., Beres, Hayden, Wilfey, & Gelso, 1996; Dillon, Copeland, & Peters, 1999; Herzog, Newman, & Warshaw, 1991; Striegel-Moore, Tucker, & Hou, 1990), much of the empirical literature on this topic seems to indicate that gay men and heterosexual women experience higher levels of concern over body image, are less accurate in their body weight estimations, and are more likely to suffer from eating disorders than heterosexual men and lesbian women (e.g., Brand, Rothblum, & Solomon, 1999; Ficher & Dasder, 1990; Muth & Cash, 1997; Schneider & Agras, 1987). The following examples illustrate the nature of these differences.

Wagenbach (1997) compared heterosexual and gay men and heterosexual and lesbian women in terms of importance of appearance, satisfaction with particular body areas, and concern with dieting and thinness. Results indicated that heterosexual women, in comparison to their gay counterparts, placed more importance on physical appearance and were more concerned with dieting and thinness. Further, the author found that gay men evidenced greater dissatisfaction with certain body areas such as the torso and waist and placed more importance on physical appearance than did heterosexual men.

Schneider, O’Leary, and Jenkins (1995) observed that heterosexual women and gay men “shared similar and unhealthy patterns of eating attitudes and food-related behaviours” (p. 125) that were not as apparent in lesbian women or heterosexual men. Specifically, they were more likely to report “feeling fat,” despite others telling them they were thin, and more likely to consume medications for the purpose of weight loss. It should be noted that this pattern of group differences did not emerge across all measures used by Schneider et al. For example, approximately 25% of gay men, lesbian women, and heterosexual women in this study reported “feeling terrified of being fat” (p. 122). A much smaller proportion (7%) of heterosexual men evidenced this fear.

Yelland and Tiggemann (2003) compared a small sample of gay and heterosexual men in terms of body satisfaction, disturbed eating, the drive for muscularity, reasons for exercise, and perceived importance of physical appearance to others. Results indicated that gay and heterosexual participants did not differ in level of body esteem or satisfaction with overall body shape. However, several differences were noted within the realm of muscularity: gay participants were less satisfied with their current level of musculature, desired a significantly greater increase in muscle mass, and obtained higher scores on a scale measuring the “drive for muscularity.” The authors also found that gay men’s scores were significantly higher than their heterosexual counterparts on the three subscales of the Eating Disorder Inventory (EDI-2) (i.e., Drive for Thinness, Bulimia, and Body Dissatisfaction). Gay men also were more likely to report that their physical appearance was important to other people and that they exercised for the express purpose of increasing attractiveness.

Finally, using a community sample of lesbian and heterosexual women, Share and Mintz (2002) evaluated “awareness and internalisation of cultural attitudes towards appearance, eating disorder symptomatology, and dimensions of body satisfaction (physical condition, weight concern, [and] sexual attractiveness)” (p. 93). Results indicated that lesbian participants evinced higher levels of body esteem on the dimension of sexual attractiveness and were less likely to internalise cultural standards concerning women’s physical appearance. Group differences did not emerge with respect to awareness of said cultural standards, body esteem in terms of weight concern and physical condition, and the occurrence of disturbed eating. However, the authors suggest that the non-significant difference between lesbian and
heterosexual participants in eating disorder symptomatology was possibly the product of a floor effect, which “would preclude an accurate evaluation of true differences between the groups” (p. 102).

Given some research indicating that gay men and heterosexual women seem to experience more negative body image evaluation and investment than do heterosexual men and lesbian women, a critical question is why do these differences exist? Theoretical explanations that have been forwarded rely on various concepts such as objectification and immersion in gay and lesbian communities. The core assumptions of these perspectives will be reviewed briefly.

Objectification theory

In its original form, objectification theory (Fredrickson & Roberts, 1997) attempts to particularise the consequences of being female within a culture that regards women’s bodies as objects available for the consumption and pleasure of others—namely men. According to this theory, when a woman is objectified, her worth as a person is contingent upon the degree to which her body reflects cultural standards of attractiveness. Stated simply, a body that adheres more closely to these aesthetic standards is accorded more value, which has profound implications for the value of the woman possessing the body. Fredrickson and Roberts (1997) contend that the objectifying (and oft-times sexualising) gaze is a ubiquitous feature of Western culture; consequently, “few women can completely avoid potentially objectifying contexts” (p. 176). The sequelae of being a continual object of scrutiny may include shame, anxiety, depression, and the prevention of peak motivational states, which may be conceptualised as periods of full absorption in stimulating mental and/or physical activity. Perhaps the most damaging consequence of objectification, however, is the object’s eventual internalisation of the gaze itself. In other words, “because of the manner in which women are regarded in [Western] society, they learn to [self-objectify or] see themselves primarily as objects designed for visual inspection and assessment” (Davis, Dionne, & Shuster, 2001, p. 22).

When applying objectification theory to the topic of sexual orientation and body satisfaction, varying patterns of group differences between gay and heterosexual men and lesbian and heterosexual women appear plausible. First, it could be argued that lesbian and heterosexual women operate within the parameters of an objectifying culture and, thus, possess similar attitudes toward their bodies (Cogan, 1999; Share & Mintz, 2002). If so, being a woman has greater implications for body image evaluation and investment than does being a lesbian. However, it is equally compelling to argue that lesbian women, by virtue of their sexual orientation, reject the traditional values embodied by culturally sanctioned objectification; that they “do not think of themselves as objects to be defined by male subjects” (Dworkin, 1989, p. 28) and have minimal investment in the “visual and evaluative scrutiny of the female body that is a fundamental feature of male heterosexuality” (Davis et al., 2001, p. 21). In accordance with this argument, one would anticipate lesbian women being more satisfied with their bodies than would heterosexual women.

With respect to gay and heterosexual men, it is possible that, irrespective of their sexual orientation, members of this gender are less likely to see their bodies in objectified (and sexualised terms) because they function within a culture that does not openly sanction male objectification—on, at least, places far greater emphasis on women as sexual objects (Davis et al., 2001). If so, one would anticipate few differences between gay and heterosexual men in the domains of body image evaluation and investment. Conversely, some researchers suggest that gay men’s body satisfaction is compromised because they are members of a subculture that pressures them to be muscular and good-looking (Atkins, 1998). Thus, while messages from the dominant culture do not prescribe men evaluating themselves in aesthetic terms, they may be contravened by messages of a qualitatively different nature that emanate from gay communities themselves. Williamson and Hartley (1998) contend that striving for bodily perfection may denote an intrapsychic response to the perceived inferiority of a non-heterosexual orientation. Despite such tentative explanations, the reasons why gay male subculture places a premium on attractiveness remain elusive.

Stages of sexual identity

Wagenbach (1997) contends that a significant relationship exists between stages of sexual identity (i.e., awareness of oneself as non-heterosexual) and body
image concerns in lesbian women and gay men. Siever (1994) argued that, as gay or lesbian identity crystallises, individuals are more likely to desire involvement with members of the same orientation. Thus, as gay men progress through the stages of sexual identity formation, their desire to be attractive to men should increase thereby resulting in greater concern about issues pertinent to the body. Conversely, lesbian women, especially those in the latter stages of identity formation, should become less concerned about appearance and attractiveness because these factors are de-emphasised (purportedly) in mate selection.

An integral element of this stage model concerns immersion into gay and lesbian subcultures. Presumably, as individuals move through these stages, their involvement with gay and lesbian communities intensify as does acceptance of the subcultures’ predominant values. However, the messages each community disseminates about the body appear to differ. The lesbian community “rejects [Western] culture’s narrowly defined ideal of female beauty and opposes the overemphasis placed on women’s physical attractiveness” (Striegel-Moore et al., 1990, p. 498). For example, Heffernan (1996) found that lesbian women were more likely to report exercising for health and fitness reasons rather than aesthetic ones such as weight loss. Greater emphasis is placed on physical attractiveness in the gay community—in fact, its purported exaltation of the body or more specifically, the muscular mesomorphic ideal, has resulted in the community being accused of “body fascism”. According to Signorile (1997), this term denotes:

... the setting of a rigid set of standards of physical beauty that pressure everyone within a particular group to conform to them. In a culture in which the physical body is held in such high esteem and given such power, body fascism then not only deems those who don’t or can’t conform to be sexually less desirable, but in the extreme also deems an individual completely worthless as a person, based solely on his exterior. (p. 28)

Harris (1997) also excoriates gay male subculture for the narrow and unrealistic standards of bodily attractiveness that he believes it permeates. Given these disparate messages, it is not surprising that the correlation between community affiliation and body dissatisfaction is negative for lesbian women, and positive for gay men (Siever, 1994).

When applied more narrowly to the domain of body satisfaction, the two theories reviewed—objectification theory and stages of sexual identity—provide conflicting predictions concerning the pattern of differences that may emerge between gay and heterosexual men, and lesbian and heterosexual women. From an objectification perspective, gender membership may be seen as more important than sexual orientation, in which case gay and heterosexual men will evidence similar levels of body satisfaction as will lesbian and heterosexual women. However, this perspective also acknowledges the possibility that levels of objectification may vary as a function of sexual orientation thus increasing heterosexual women’s and gay men’s susceptibility to body dissatisfaction. The stages of sexual identity model generates one basic prediction: it contends that, by virtue of the messages disseminated by their communities, gay men and lesbian women should evidence higher and lower levels, respectively, of body dissatisfaction.

The purpose of the current meta-analysis was not to test the usefulness or veracity of these theories. Rather, in keeping with the rationale provided by Oliver and Hyde (1993), it was anticipated that summarising these theories would “help illuminate the mechanisms that may be behind the observable differences assessed in [the current study]” (p. 32).

Method

Procedure and criteria for selection of studies

An extensive search of all relevant social scientific literature was conducted using three computerised databases: (a) PsycINFO (1887 to December 2002); (b) MedLine (1966 to October 2002); and (c) the Social Science Index (1986 to present). In the search process, the key word body image was used in conjunction with male homosexuality, female homosexuality, lesbian, gay men, homosexuality, sex roles, and psychosexual behaviour. The references cited in articles identified through the computer search also were used to locate additional studies. Finally, a request was issued through the electronic list service of the American Psychological Association’s Society for the Psy-
chological Study of Gay, Lesbian, and Bisexual issues, soliciting any work (published or unpublished) on sexual orientation and body image. (It should be noted that this request did not yield any additional research.) Fifty-nine studies were identified in total; however, application of two inclusion criteria resulted in the loss of 32 studies. These criteria were: (1) the study had to use instruments that were described as measuring “body satisfaction or dissatisfaction”; and (2) the study had to permit comparisons between heterosexual women and lesbian women and/or heterosexual men and gay men. Thus, studies that measured other aspects of body image such as pathogenic eating practices and exercise behaviour or focused solely on one orientation (e.g., lesbian women) did not receive further consideration. A total of 27 studies remained, of which 20 were published and seven were unpublished. Dates for these studies ranged from 1983 to 2003.

Coding of categorical variables

Overall effect sizes in meta-analysis are often heterogeneous (e.g., Cash & Deagle, 1997; Murnen & Smolak, 1997); thus, categorical variables are typically employed to identify subsets of studies which are then re-analysed. In anticipation of heterogeneity, the following categorical variables were selected: (1) type of measure used to assess body satisfaction; (2) date of study (i.e., the publication date for published research and the completion date for dissertations—1980s versus 1990s and onward); (3) publication status (published versus unpublished); and (4) body mass of participants. The rationale underlying the selection of each categorical variable will be outlined briefly. It should be noted that, due to studies’ overwhelming reliance on heterosexual undergraduate students, obvious categorical variables such as age and college versus non-college student status were not coded. Further, the variables that were selected were chosen, not necessarily on the basis of empirical research, but rather because it appeared logically compelling to test them. Given the exploratory manner in which these categorical variables were chosen, the authors recommend that findings pertinent to these variables be interpreted with caution.

The studies included in the meta-analysis used various indices of body satisfaction such as single-item measures (e.g., Dillon et al., 1999; Schneider et al., 1995), checklists assessing satisfaction with different parts of the body (e.g., Ledford, 1985), Likert-type rating scales evaluating satisfaction with one’s overall appearance (e.g., Gentleman & Thompson, 1993), body size drawings that provide self-ideal discrepancy appraisals (e.g., Siever, 1994), and instruments possessing multiple subscales in which sometimes all were used (e.g., Lyders, 1999) and other times they were not (e.g., Brand et al., 1992). It is possible that investigators’ reliance on different measures of body satisfaction may contribute to effect size heterogeneity. For example, studies examining satisfaction with masculinity may obtain pronounced differences between gay and heterosexual males, whereas studies focusing on satisfaction with different body parts and functions may report negligible differences (e.g., Yelland & Tiggemann, 2003).

Research suggests that body dissatisfaction may be intensifying among males (e.g., Morrison, Morrison, & Hopkins, 2003; Pope, Phillips, & Olivardia, 2000); thus, fewer differences between heterosexual and gay men may be reported in studies published more recently. Similarly, for women, cultural pressure to adhere to the “Barbie mandate” (Cogan, 1999) has likely increased over the past 20 years. Greater pressure may serve to intensify both heterosexual women and lesbian women’s difficulties with body image—a struggle that is encapsulated by the following comment: “How can I [as a lesbian woman] know so much about women and body image, and still have so much loathing for my own body?” (Cogan, 1999, p. 82). To investigate time as a categorical variable, studies were grouped according to date of study (1980s versus 1990s+) and meta-analysed.

The “file drawer problem” (i.e., the tendency for research that does not identify significant differences to go unpublished) is one well known to meta-analysts (Wolf, 1986). It is possible that studies appearing in scholarly journals that examine differences in body satisfaction, as a function of sexual orientation, are more likely than their unpublished counterparts to reject the null hypothesis. To determine whether the “file drawer problem” contributed to heterogeneity, studies were coded by publication status and meta-analysed.

Finally, as the corporeal states of non-thinness and non-muscularity contravene current aesthetic stan-
dards for females and males, respectively, studies were classified on the basis of whether they did (or did not) identify significant differences in body mass between heterosexual versus gay men and heterosexual versus lesbian women. The rationale behind the decision to treat body weight, as a categorical variable, is that studies having groups of participants that differ significantly in weight introduce a possible confound (Rothblum, 2002). For example, if Studies A through C find that heterosexual women evince greater levels of body satisfaction than do lesbian women, but also possess significantly lower body mass indices, should the differences in satisfaction be attributed to sexual orientation or variations in weight status?

Computations and statistical analyses

For 24 studies, Cohen’s $d$ for group differences was used (Wolf, 1986). In most cases, $d$ was calculated using means and pooled standard deviations, with heterosexual men or women being Group 1, and gay men or lesbian women being Group 2. This order was adhered to for all analyses; thus, positive $d$ values indicated greater body satisfaction for heterosexual men and heterosexual women. However, in the event that higher scores denoted greater levels of body dissatisfaction, the sign of $d$ was reversed. When means and standard deviations were unavailable, $r$ or $F$ values were converted into $d$. Three studies reported non-significant differences but did not provide sufficient information to permit calculation of $d$. Thus, in accordance with Feingold’s (1994) recommendation, the effect size for each of these studies was set at 0.00. Weighted average effect sizes [(d1(NT1) + d2(NT2) +···/NT)] were then computed for the heterosexual-gay men comparisons and the heterosexual/lesbian women comparisons. The comprehensive meta-analysis computer software program (Borenstein & Rothstein, 1997–2001) was used to determine the statistical significance of weighted $d$, the 95% confidence interval (CI) for weighted $d$, and all homogeneity statistics ($Q$). The latter is a statistical determination of whether the same underlying research hypotheses are being tested across individual studies (Wolf, 1986). Given the multidimensional nature of body image and the plethora of measures used to evaluate body satisfaction or lack thereof, a determination should prove illuminating.

**Results**

The 27 studies produced 61 effect sizes; 36 comparing heterosexual and gay men’s body satisfaction and 25 comparing heterosexual and lesbian women’s body satisfaction. These studies yielded a total of thirty-seven samples ($N = 5220$), representing 1397 heterosexual men, 984 gay men, 1391 heterosexual women, and 1448 lesbian women. Findings for male and female participants are presented separately as is the complete list of studies used in the meta-analyses and their accompanying effect sizes (see Tables 1 and 2).

**Heterosexual and gay men**

The average weighted effect size ($d_{\text{average}}$) for studies comparing heterosexual and gay males was 0.74, 95% CI = 0.16 to 1.34, $Q(35) = 3081.55$, $p < 0.001$. The $Q$ statistic suggests that this effect is heterogeneous; however, prior to creating homogeneous subsets via the testing of categorical variables, studies were inspected to identify obvious outliers. The averaged $d$ value for Beren et al. (1996) study was approximately six times larger than the next largest $d$ value listed in Table 1. A review of Beren et al.’s (1996) study reveals extreme differences between participants in terms of age (i.e., average ages for heterosexual and gay males were 18.8 and 30.1 years, respectively). When this study was removed, the size of $d$ lessened appreciably, $d_{\text{average}} = 0.29$, 95% CI = 0.18 to 0.40, $Q(32) = 87.30$, $p < 0.001$. The resultant value suggests that there remains a small, but real, difference between heterosexual and gay men in terms of body satisfaction. Further, as the CI does not encompass zero, one may reject the null hypothesis that there is no difference between these groups.

While removal of the Beren et al. (1996) study decreased the value of $Q$, it remained significant. Thus, in an attempt to identify homogeneous subsets, categorical variables were tested. First, when feasible, studies using the same measure of body satisfaction were grouped and meta-analysed. Results indicated that studies using the Body Dissatisfaction Subscale of the Eating Disorders Inventory ($k = 6$, $d_{\text{average}} = 0.40$, 95% CI = 0.22 to 0.57, $Q(5) = 6.08$, $p = ns$) and those using single-item measures of body satisfaction ($k = 5$, $d_{\text{average}} = 0.18$, 95% CI = 0.01 to 0.35,
Table 1

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample</th>
<th>Effect size</th>
<th>Measure(s) used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Beren, Hayden, Wilfley, and Grilo (1996) 58 heterosexual; 58 gay</td>
<td>8.5</td>
<td>Body Shape Questionnaire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.28</td>
<td>Body Size Drawings&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>2</td>
<td>Borsoughs and Thompson (2002) 87 heterosexual; 47 gay</td>
<td>0.12</td>
<td>Body Areas Satisfaction Scale (MBSRQ)&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>3</td>
<td>Brand, Rothblum, and Solomon (1992) 39 heterosexual; 13 gay</td>
<td>0.00</td>
<td>Body Dissatisfaction Subscale (EDI)</td>
</tr>
<tr>
<td>4</td>
<td>Dillon, Copeland, and Peters (1999) 68 heterosexual; 26 gay</td>
<td>0.00</td>
<td>Satisfaction with Body Shape (single-item)</td>
</tr>
<tr>
<td>5</td>
<td>Gettleman and Thompson (1993) 32 heterosexual; 32 gay</td>
<td>0.37</td>
<td>Body Areas Satisfaction Scale (MBSRQ)</td>
</tr>
<tr>
<td></td>
<td>Herzog, Newman, and Warshaw (1991) 32 heterosexual; 43 gay</td>
<td>0.48</td>
<td>Appearance Evaluation Subscale (MBSRQ)</td>
</tr>
<tr>
<td></td>
<td>Lakkis, Ricciardelli, and Williams (1999) 60 heterosexual; 69 gay</td>
<td>0.55</td>
<td>Body Dissatisfaction Subscale (EDI)</td>
</tr>
<tr>
<td></td>
<td>Reams (1993) 71 heterosexual; 32 gay</td>
<td>0.66</td>
<td>Body Esteem Scale</td>
</tr>
<tr>
<td></td>
<td>Siever (1994) 36 heterosexual; 40 gay</td>
<td>0.19</td>
<td>Satisfaction with Appearance (single-item)</td>
</tr>
<tr>
<td></td>
<td>Silberstein, Mishkind, Streigel-Moore, Timko, and Rodin (1996) 71 heterosexual; 71 gay</td>
<td>0.34</td>
<td>Current/Ideal Weight Discrepancy</td>
</tr>
<tr>
<td></td>
<td>Strong, Williamson, Nettaway, and Geer (2000) 97 heterosexual; 110 gay</td>
<td>0.42</td>
<td>Body Size Drawings</td>
</tr>
<tr>
<td></td>
<td>Wagenerbach (1997) 37 heterosexual; 51 gay</td>
<td>0.14</td>
<td>View Scale</td>
</tr>
<tr>
<td></td>
<td>Williamson and Hartley (1996) 47 heterosexual; 41 gay</td>
<td>0.13</td>
<td>Body Shape Questionnaire</td>
</tr>
<tr>
<td></td>
<td>Yager, Kurtman, Landovick, and Winermeier (1996) 308 heterosexual; 48 gay</td>
<td>0.54</td>
<td>Body Dissatisfaction Subscale (EDI)</td>
</tr>
<tr>
<td></td>
<td>Yelland and Tiggesmann (2003) 51 heterosexual; 52 gay</td>
<td>0.00</td>
<td>Body Esteem Scale (version 1)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Drawings entail self-ideal discrepancy appraisals.
<sup>b</sup> Eating Disorders Inventory.
<sup>c</sup> Multidimensional Body-Self Relations Questionnaire.
<sup>d</sup> Body Esteem Scale.

Q[4] = 2.59, p = ns were homogeneous. These findings suggest that, across two different measures, researchers consistently observe greater levels of body satisfaction in heterosexual men than in gay men.

The categorical variables, date of study (1980s versus 1990s), publication status (published or unpublished), and presence or absence of significant differences in body mass between gay and heterosexual men did not result in the identification of homogeneous subsets. The d values obtained for the date of study and publication status categorical subsets were of comparable magnitudes, suggesting that neither variable served as a moderator. A significant difference was observed between the d values ob-
Table 2

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample</th>
<th>Effect size</th>
<th>Measure(s) used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Beren, Hayden, Wilfley, and Grilo (1996)</td>
<td>heterosexual: 72; lesbian: 69</td>
<td>−0.04</td>
<td>Body Shape Questionnaire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.75 Body Size Drawings&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>2 Bergeron and Senn (1998)</td>
<td>heterosexual: 108; lesbian: 116</td>
<td>1.38</td>
<td>Body Dissatisfaction Subscale (EDI)&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>3 Brand, Rothblum, and Solomon (1992)</td>
<td>heterosexual: 133; lesbian: 124</td>
<td>0.00</td>
<td>Body Dissatisfaction Subscale (EDI)</td>
</tr>
<tr>
<td>4 Gettleman and Thompson (1993)</td>
<td>heterosexual: 32; lesbian: 32</td>
<td>0.48</td>
<td>Body Areas Satisfaction Scale (MBSRQ)&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.04 Appearance Evaluation Subscale (MBSRQ)</td>
<td></td>
</tr>
<tr>
<td>5 Herzog, Newman, Yeh, and Warshaw (1992)</td>
<td>heterosexual: 64; lesbian: 45</td>
<td>0.00</td>
<td>Body Dissatisfaction Subscale (EDI)</td>
</tr>
<tr>
<td>6 Lakkos, Ricciardelli, and Williams (1999)</td>
<td>heterosexual: 73; lesbian: 64</td>
<td>−1.74</td>
<td>Body Dissatisfaction Subscale (EDI)</td>
</tr>
<tr>
<td>7 Levente and Wendenburg (1981)</td>
<td>heterosexual: 85; lesbian: 18</td>
<td>−0.50</td>
<td>Body Cethexis Scale</td>
</tr>
<tr>
<td>8 Lyders (1999)</td>
<td>heterosexual: 40; lesbian: 40</td>
<td>−0.10</td>
<td>Body Estem Scale</td>
</tr>
<tr>
<td>9 Owens, Hughes, and Owens-Nicholson (2003)</td>
<td>heterosexual: 258; lesbian: 518</td>
<td>0.21</td>
<td>Body Image Index</td>
</tr>
<tr>
<td>10 Schneider, O’Leary, and Jenkins (1995)</td>
<td>heterosexual: 75; lesbian: 25</td>
<td>−0.91</td>
<td>Satisfaction with Appearance (single-item)</td>
</tr>
<tr>
<td>11 Share and Mintz (2002)</td>
<td>heterosexual: 87; lesbian: 57</td>
<td>−0.06</td>
<td>Body Estem Scale</td>
</tr>
<tr>
<td>12 Server (1994)</td>
<td>heterosexual: 62; lesbian: 53</td>
<td>−0.28</td>
<td>Body Estem Scale (version 1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>−0.42</td>
<td>Body Dissatisfaction Subscale (EDI)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>−0.14</td>
<td>Body Size Drawings</td>
</tr>
<tr>
<td>13 Strong, Williamson, Nettymeyer, and Glen (2000)</td>
<td>heterosexual: 25; lesbian: 30</td>
<td>0.25</td>
<td>Current/Ideal Weight Discrepancy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.04</td>
<td>Body Estem Scale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.31</td>
<td>Body Estem Scale</td>
</tr>
<tr>
<td>14 Vincent (1993)</td>
<td>heterosexual: 116; lesbian: 89</td>
<td>−0.32</td>
<td>Body Shape Questionnaire</td>
</tr>
<tr>
<td>15 Vincent (1993)</td>
<td>heterosexual: 87; lesbian: 91</td>
<td>−0.23</td>
<td>Body Estem Scale</td>
</tr>
<tr>
<td>16 Wagenerbach (1997)</td>
<td>heterosexual: 47; lesbian: 47</td>
<td>0.44</td>
<td>Appearance Evaluation Subscale (MBSRQ)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.22</td>
<td>Body Areas Satisfaction Scale (MBSRQ)</td>
</tr>
</tbody>
</table>

<sup>a</sup> Drawings entail self-ideal discrepancy appraisals.
<sup>b</sup> Eating Disorders Inventory.
<sup>c</sup> Body Attitude Questionnaire.
<sup>d</sup> Multidimensional Body-Self Relations Questionnaire.

Heterosexual and lesbian women's body satisfaction

The average effect size (d<sub>average</sub>) for studies comparing heterosexual and lesbian women’s level of body satisfaction was −0.02, 95% CI = −0.23 to 0.20. Q(24) = 246.19, p < 0.001. The size of the d value and the CI’s encompassment of zero suggests no difference between the two groups. As the initial test of heterogeneity (Q) was significant, studies were inspected to identify possible outliers. Again, the study by Beren et al. (1996) proved worrisome, due to substantial heterogeneity. The study that showed the largest effect size (d = 1.74) was by Herzog, Newman, Yeh, and Warshaw (1992), which compared heterosexual and lesbian women. This study used the Body Dissatisfaction Subscale of the Eating Disorders Inventory (EDI), but it is unclear if this measure is appropriate for comparing these two groups. Future research should consider using more appropriate measures for comparing body satisfaction between heterosexual and lesbian women.
to the highly disparate mean ages of its heterosexual and lesbian female participants (18.4 years and 34.9 years, respectively). Removal of this study resulted in a small increment in $d_{\text{average}}$ (i.e., $-0.12$, 95% CI $= -0.31$ to 0.08). However, as the CI encompasses zero, one cannot reject the null hypothesis that these groups do not differ in level of body satisfaction. The test of heterogeneity remained significant, $Q(21) = 155.82, p < 0.001$; thus, in an attempt to identify homogeneous subsets of $d$ values, categorical variables were examined.

None of the categorical variables tested in this study (i.e., measure used, date of study, publication status, and body mass) produced homogeneous subsets that permitted one to reject the null hypothesis of no group differences (i.e., CIs all for subsets encompassed zero). With one exception outlined below, the $d$ values obtained for all subsets of categorical variables did not differ significantly, which suggests that none of them function as moderators. It was observed, however, that body mass might play a minor role with respect to differences in body satisfaction between lesbian and heterosexual women. The $d$ value obtained for studies using lesbian and heterosexual participants that did not differ significantly in body weight was $-0.22$, suggesting slightly greater satisfaction on the part of lesbian women. A similar $d$ value was not obtained in the subset of studies using lesbian women that weighed significantly more than their heterosexual counterparts (i.e., $d = 0.05$). The difference between these $d$ values was significant, $t(13) = 2.34, p < 0.025$, one-tailed.

Discussion

In this study, the available literature examining differences in body satisfaction that may accompany self-identification as heterosexual, lesbian, or gay were meta-analysed. Overall, results indicated that gay men appear to be slightly more vulnerable to body dissatisfaction than heterosexual men. Although no reliable differences were documented for women, the $d$ value obtained for a small subset of studies ($k = 4$), in which lesbian and heterosexual participants were of comparable weight status, suggests that the former may be slightly more satisfied with their bodies.

Comparing the two averaged effect sizes obtained for heterosexual/gay men and heterosexual/lesbian women reveals that the former evince greater disparity in body satisfaction than do the latter, $t(53) = 2.33, p < 0.05$. Thus, an important question is: within the realm of body satisfaction, why does sexual orientation appear to be more influential for men and less influential for women? The answers may reside in the heightened body consciousness that permeates gay male subculture (Yelland & Tiggemann, 2003) and in the belief that, due to sociocultural pressures, discontent with one’s body is a normative experience for both heterosexual and lesbian women (e.g., Cogan, 1999).

Several studies indicate that gay male subculture, with its emphasis on physical appearance, may serve to heighten individuals’ perceived discrepancy between their current and ideal body shapes (Siever, 1994; Silberstein Mishkind, Striegel-Moore, Timko, & Rodin 1989; Yager, Kurtzman, Landsverk, & Wiesmeier, 1988). As mentioned earlier, this subculture has been accused of being “body fascistic” (see Signorile, 1997) and disseminating the message that self-worth is contingent upon adhering to a specific aesthetic (i.e., the muscular mesomorphic build with its classic V-shape). Although critiques of gay culture tend to be speculative in nature, some research suggests that gay men may be more likely than members of other sexual orientations to fuse their sense of personal value with their physical appearance. For example, Yelland and Tiggemann (2003) found that gay men’s level of self-esteem correlated negatively with how important they felt their appearance, weight, and level of muscularity were to other people. Significant correlations were not obtained for the heterosexual male and female participants in the study. The authors suggest the perceived importance of these factors may reflect “the pressure that is experienced from within one’s own culture to attain the ideal body shape” (p. 110).

It is not surprising then that gay men, especially those heavily immersed in this looks-oriented cultural milieu, may be at greater risk for body dissatisfaction. Future research on this topic should attempt to particularise why gay male subculture “has developed a powerful, even merciless system of rewards and penalties based on body image” (Rotello, 1997, p. 254). Although tentative explanations have been offered (e.g., Williamson & Hartley, 1998), they tend to be indivi-
ualistic in nature and ignore the intersection of cultural and psychological factors. What variables, both individual and sociocultural, contribute to gay men’s increased emphasis on corporeal perfection? And what accounts for variations in gay men’s susceptibility to the idealistic messages about the body promulgated by gay subculture?

With respect to women, many theorists acknowledge that lesbian subculture appears to possess more flexible norms about the female body (Ojerholm & Rothblum, 1999), which should serve as a buffer from the damaging effects of mainstream society’s pressure on women to be thin. The current meta-analysis provided some tentative evidence in support of this contention. In a subset of studies comparing lesbian and heterosexual women of comparable weight, it was found that the former were slightly more satisfied with their bodies than were the latter. The magnitude of this difference ($d = -0.22$), however, suggests that the norms of lesbian subculture may be insufficient to counteract the types of messages about physical appearance that bombard all women from childhood onward (Beren et al., 1996). Stated simply, for women “gender [appears to] trump sexual orientation” (Heffernan, 1996, p. 134).

Researchers have documented consistently that lesbian and heterosexual women possess comparable levels of awareness of societal standards concerning physical appearance (e.g., Bergeron & Senn, 1998; Share & Mintz, 2002). Further, although lesbian women evince less internalisation of said standards in comparison to heterosexual women, they do not reject them outright. For example, Bergeron and Senn (1998) and Share and Mintz (2002) measured acceptance of cultural standards of appearance using the Internalisation subscale of the Sociocultural Attitudes Toward Appearance Questionnaire. In both studies, lesbian participants’ mean scores approximated the mid-point, suggesting modest levels of internalisation.

Objectification theory may provide greater insight into why lesbian and heterosexual women appear prone to body dissatisfaction. If, in accordance with this theory, self-scrutiny (or an internalised “gaze”) is the almost inevitable consequence of existing within a culture that values women as objects, then identification as lesbian (and involvement in lesbian subculture) may be insufficient to counteract years of objectification, both from others and oneself. Additional research is needed to assess the utility of this theory vis-à-vis lesbian and heterosexual women’s bodies, in general, and body satisfaction, in particular.

The overall averaged $d$ values were heterogeneous for both men and women. Further, efforts at obtaining homogeneous subsets met with limited success. Grouping studies by date of study, publication status, and whether gay/heterosexual men and lesbian/heterosexual women were of comparable weights did not serve to reduce effect size heterogeneity. However, subsets of studies using the same measure of body satisfaction (e.g., the Body Dissatisfaction Subscale of the Eating Disorders Inventory) were found to be homogeneous. The fact that certain indices met the criterion of homogeneity while others did not suggests that it is imprudent to regard the myriad indicators of body satisfaction used by researchers as conceptually analogous. The sheer volume of scales used by the studies included in this meta-analysis suggests that researchers should move toward greater measurement consistency.

Although the subsets were not homogeneous, studies classified in accordance with whether gay and lesbian participants had weights similar or dissimilar to their heterosexual counterparts suggested that different outcomes might emerge as a function of weight status. Thus, when comparing heterosexual and gay men or lesbian and heterosexual women who differ significantly in terms of weight, it is imperative that this difference be controlled statistically. Otherwise, a confound is introduced whereby one is unable to gauge whether differences in body satisfaction may be attributed to sexual orientation or weight status (Rothblum, 2002).

Finally, a few limitations to this study should be noted. First, studies were not coded for quality. This practice is recommended by some meta-analysts (e.g., Wolf, 1986) because it enables researchers to determine whether effect sizes differ as a function of study calibre. Although subsets of studies were not evaluated on the basis of quality (however one defines this rather vague construct), it should be noted that a majority of the research appearing in this meta-analysis had been published in peer-reviewed academic journals. Thus, the studies included herein may be seen as possessing—at the very least—a modicum of quality. Second, the parameters of this meta-analysis were rather narrow. The emphasis was on the relationship...
between sexual orientation (gay, lesbian, and heterosexual men and women) and body satisfaction. Other variables pertinent to body image such as pathogenic weight control practices and reasons for exercise were not investigated. Finally, the current meta-analysis used studies that examined sexual orientation in an admittedly simplistic fashion—typically, with a Kinsey-type single item measure. It may be argued that this somewhat impoverished view of sexual orientation does not possess much explanatory power because it removes this variable from the cultural and individual processes that accompany identification as gay, lesbian or heterosexual. Subsequent research on this topic likely will benefit by adopting a more comprehensive view of sexual orientation.

Despite the aforementioned limitations, this meta-analysis indicates that gay men are more prone than heterosexual men to body dissatisfaction. The failure to reject the null hypothesis for lesbian and heterosexual women suggests that both groups may be susceptible to negative views of the body. The finding also causes one to question the supposition that disavowal of the beauty norms that predominate in mainstream culture is more likely to occur among lesbian women. It is recommended that researchers attempt to better understand why these groups (specifically, gay men, heterosexual women, and lesbian women) are at greater risk for body dissatisfaction than heterosexual men. By pursuing these avenues of inquiry, social scientists also may develop methods aimed at countering or undermining the normative discontent that many individuals have toward their bodies.

References


