

Is Internalized Homonegativity Related to Body Image?

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The authors examined relationships among internalized homonegativity, body image, eating disturbance, and self-esteem of gay men. Internalized homonegativity is believed to be experienced by all gay men and is tied to self-esteem, which is a factor in the etiology of eating disorders and body image disturbance. It was hypothesized that internalized homonegativity would predict body image, self-esteem, and eating disturbance. A total of 213 gay men participated in an online survey that used established measures. Results showed that specific components of internalized homonegativity predict body image, self-esteem, and bulimic behaviors. Findings imply that internalized homonegativity is a viable link for assessing body image and self-esteem among gay men. This study adds new dimension to the literature by linking internalized homonegativity with body image and by demonstrating a specific component of internalized homonegativity as predicting the variables tested. Future research and limitations are discussed.

Keywords: *bodybuilding; tanning; gay men; homosexual men; internalized homophobia; internalized homonegativity; body image*

Sexual orientation is defined as “an inborn, innate predisposition for gender of sexual or affectional partners” (Eliason, 1996, p. 34). Men who identify themselves as gay are attracted to other men both physically and emotionally and accept the possibility of forming a committed relationship with another man. This is in contrast to the term *homosexual*: Men who have sex with other men but identify their sexual orientation as straight or heterosexual term their behavior as homosexual (not gay; Adam, 2000). A gay identity is formed by progressing through a series of stages, beginning with a realization that one is somehow different and concluding with labeling oneself as gay and assimilating this part of oneself into one’s complete personhood (Cass, 1979, 1984). Thus, for gay men, sexual orientation and identity are closely related. Once an identity is achieved, a person can use personal aesthetics to show one’s identity. Appearance aesthetics can be used to proclaim or hide one’s gay identity; many scholars have noted a cultural or identity-related influence on gay men’s dress (e.g., Cole, 2000; Ridinger, 1997; Rubin, 1998; Rudd, 1996).

There are many explanations as to why gay men create specific body aesthetics, or ways of presenting themselves to others. These range from the desire to attract a partner (Sergios & Cody, 1986; Siever, 1994) to subcultural identity formation (Cole, 2000; Kates, 2000). Creating a personal body aesthetic in response to the body image held by an individual has yet to be studied in relation to internalized homonegativity. *Internalized homonegativity* is a gay person’s acceptance of society’s negative attitudes directed toward gay people, or the acceptance of a heterosexist society

(Hudson & Ricketts, 1980). Internalized homonegativity has been studied in relation to self-esteem (Allen & Oleson, 1999; Shidlo, 1994), avoidance of social situations (Prieur, 1990; Williamson, 2000), unsafe sex (Prieur, 1990; Williamson, 2000), and shame (Allen & Oleson, 1999; Herek, Gillis, Cogan, & Glunt, 1997); in all of these studies internalized homonegativity was associated with negative outcomes. Yet the connection between internalized homonegativity and body image has not been examined. Understanding that internalized homonegativity is linked to self-esteem and self-esteem is linked to body image, it is likely that internalized homonegativity may be related to body image; if so, the relationship may also result in negative outcomes, such as risky appearance-management behaviors. This study served to explore this possibility. Given that nearly all gay men experience some degree of internalized homonegativity at some point in their lives (Forstein, 1988; Gonsiorek, 1988), it is imperative to understand the aesthetic issues that are associated with internalized homonegativity.

THEORETICAL FRAMEWORK

The theory of cognitive dissonance (Festinger, 1957) provided a framework for this research. According to the theory, one will experience mental discomfort when one's beliefs do not align with one's actions; one will then seek to remedy this schism. Dissonance can develop when one's self-concept is threatened (Aronson, 1992), when one's behavior is contrary to one's self-standard (Stone & Cooper, 2001), or when one's behavior is viewed as hypocritical (Stone, Cooper, Wiegand, & Aronson, 1997).

For this study, it was assumed that dissonance develops when a man assumes a gay identity. This can threaten his self-concept or self-standard if he has accepted the social stereotype that gay men are effeminate yet he views himself as masculine. In American society, attraction or affection between men is often demonized and viewed as unmanly. A man can even view the situation as hypocritical if he feels that his sexual orientation does not match his personal beliefs and attitudes (i.e., that sexual and affectional behavior between two men is wrong). This dissonance will affect attitudes and behaviors toward his body. To reduce this mental dissonance, he may turn to potentially harmful methods to alter his body in an effort to assert his masculinity.

REVIEW OF LITERATURE

Body image—the thoughts, feelings, and actions taken with regard to how a person views his or her body (Thompson, Heinberg, Altabe, & Tantleff-Dunn, 1999)—has been linked to sexual orientation. Some research (e.g., Beren, Hayden, Wilfey, & Grilo, 1996) reports that gay men are more dissatisfied with their bodies than heterosexual men, whereas other research (e.g., Yelland & Tiggemann, 2003) reports no difference. Body dissatisfaction is a negative discrepancy between a person's perceived body and a person's ideal body (Thompson, 1990). Morrison, Morrison, and Sager (2004) conducted a meta-analysis of previous research on body satisfaction among gay and heterosexual persons ($N = 5,220$) and found a "small, but real, difference between heterosexual and gay men in terms of body

satisfaction," (p. 132); that is, gay men have more dissatisfaction, although perhaps not to the extent previously reported.

One reason for gay men's body dissatisfaction may be related to their gay identity. For gay men, physical appearance is an important factor in partner selection (Sergios & Cody, 1986), and gay men are more fearful of being overweight than heterosexual men (Yager, Kurtzman, Landsverk, & Wiesmeier, 1988). The implication is that gay men place a value on the physical beauty of other men, and by consequence, it is placed on them; if a gay man wants to date or attract a mate, it appears he feels he must achieve a particular aesthetic. The cultivation of an aesthetic can be incorporated into one's identity whereby dress is used to represent one's self (Rudd & Lennon, 1994).

Another reason that gay men may have higher levels of body dissatisfaction than do heterosexual men could be internalized homonegativity. In general, gay people are discriminated against in hotel reservations (Jones, 1996) and in adoption, military, and employment matters (Margolies, Becher, & Jackson-Brewer, 1987). A stranger also is less likely to help a gay person (Gary, Russell, & Blockley, 1991). Internalized homonegativity is greatest during the earlier stages of gay identity formation (Cass, 1984; Meyer, 1993), and a person with internalized homonegativity will, to some degree, view discriminatory practices as appropriate.

Accepting such negative feelings about one's gay sexual orientation not surprisingly leads to low self-esteem (Allen & Oleson, 1999; Nicholson & Long, 1990; Shidlo, 1994). *Self-esteem*—the personal worth a person feels—is believed to be indicative of one's overall mental health. Self-esteem is also indirectly related to sexual orientation, in that gay people tend to have self-esteem levels that are lower than heterosexual people. Gay people do not have a lower self-esteem by virtue of their sexual orientation alone but rather, because of other variables associated with their sexual orientation, such as stigma and stress (Frable, Wortman, & Joseph, 1997; Savin-Williams, 1990). In addition, Magel (2002) noted that low self-esteem is related to low gay identity, and as one's gay identity becomes more important to a person, one's self-esteem will increase as well. Likewise, Jacobs and Teaford (1980) reported that self-esteem is linked to the importance one places on one's sexual orientation.

A gay sexual orientation is a unique stigma in that it is concealable; not all gay people are easily identified by their sexual orientation. Frable, Platt, and Hoey (1998) examined gay sexual orientation as a concealed stigma and concluded that people with concealable stigmas have lower self-esteem. They believed that this is because many gay people know how to mask their sexual orientation, which many gay men believe is essential to avoid violence or discrimination (Stokes & Peterson, 1998). Massey and Ouellette (1996) and Frable et al. (1997), however, found the opposite, that gay people have high self-esteem. Massey and Ouellette argued that this is because of in-group bias (Tajfel, 1981), whereby people develop pride and affection for their cultural group. The discrepancy in findings may lie in the sample. Massey and Ouellette surveyed a small sample ($N = 19$) of participants who were recruited from gay social and support groups in a large city. Frable and colleagues (1997) surveyed a larger sample ($N = 825$) of participants who were recruited from gay social and research groups, also in a large city. Frable et al. (1998) examined 86 subjects in an experiment with participants recruited from the student population at a university. People in gay support groups may have more interaction with gay people, which may account for the higher self-esteem

(Williamson, 2000). By nature, support groups give validation and help to their members. Given that the Frable et al. (1998) sample was recruited from a university population, it is uncertain whether the sample had similar support networks. Thus, the difference in findings may be because of the nature of the samples.

Self-esteem is also linked to body dissatisfaction, which may be another reason why gay men tend to have higher levels of body dissatisfaction than do their heterosexual counterparts. Researchers note that, in general and not just among gay men, a low self-esteem is related to dissatisfaction with one's appearance (Koff, Rierdan, & Stubbs, 1990; Kostanski & Gullone, 1998; Lennon, Lillethun, & Buckland, 1999; Thompson & Altabe, 1991) and to a higher likelihood to engage in risky appearance-management behaviors (Reilly & Rudd, 2002). Appearance, including physique, is believed to be an indicator of one's sexual orientation (Burke, Epting, & Raskin, 1994; Kiker & Miller, 1967). In their efforts to produce a desired appearance or to mask their (presumed) sexual orientation, gay men may turn to risky appearance-management behaviors. Gay men may wish to create a hyper-masculine appearance by engaging in extreme bodybuilding. Steroid use is often associated with bodybuilding as a means to quicken muscle growth (Brill & Kean, 1994; Kleiner, Bazzarre, & Ainsworth, 1994). Not only do bodybuilders wish to gain muscle mass, but they also desire to lose weight (Pope, Phillips, & Olivardia, 2000) to achieve a sculpted, mesomorphic body. In such an effort, gay men may turn to other risky appearance-management behaviors, such as chronic dieting (limiting one's caloric intake), oral control (avoiding food), and bulimic behaviors (binging and vomiting) to lose weight. Gay men in particular are considered a high-risk group for eating disorders such as restrictive dieting, anorexia nervosa, and bulimia nervosa (Boroughs & Thompson, 2002; Siever, 1994; Silberstein, Mishkind, Striegel-Moore, Timko, & Rodin, 1989). However, it should be noted that discomfort with oneself could also lead to participation in healthful behaviors (e.g., healthy dieting to reach a realistic weight goal or healthy exercise and weight training to become physically fit), which in turn could result in closer approximation of the cultural appearance ideal for men.

In sum, the literature demonstrates that high internalized homonegativity is associated with low self-esteem. It also shows that gay men tend to have increased body dissatisfaction and lower self-esteem than do their heterosexual counterparts and are more likely to engage in risky appearance-management behaviors. Therefore, it is likely that internalized homonegativity can predict body image, self-esteem, and eating disorders. Thus, the following hypotheses were developed for testing:

Hypothesis 1a: Attitudes toward one's gay sexual orientation will predict body image.

Hypothesis 1b: Attitudes toward others' gay sexual orientation will predict body image.

Hypothesis 1c: Attitudes toward revealing one's gay sexual orientation to others will predict body image.

Hypothesis 2a: Attitudes toward one's gay sexual orientation will predict self-esteem.

Hypothesis 2b: Attitudes toward others' gay sexual orientation will predict self-esteem.

Hypothesis 2c: Attitudes toward revealing one's gay sexual orientation to others will predict self-esteem.

Hypothesis 3a: Attitudes toward one's gay sexual orientation will predict eating disturbance.

Hypothesis 3b: Attitudes toward others' gay sexual orientation will predict eating disturbance.

Hypothesis 3c: Attitudes toward revealing one's gay sexual orientation to others will predict eating disturbance.

METHOD

Participants

Participants learned of this study by word-of-mouth, flyers, postings in gay-oriented chat rooms or electronic bulletin boards or by conducting an Internet search. The questionnaire was listed with two Internet search directories using the following keywords: *body image*, *body satisfaction*, *internalized homophobia*, and *bodybuilding*. This method has been used previously with successful results (Reilly & Rudd, in press), in which participants varied in age, race, and geographic region, yielding a diverse sample.

After completing the questionnaire, participants had the option to register for a raffle. Registration for the raffle was completed via an online submission system. Participants registered by providing their name and contact information. Participants were informed that their contact information could not be linked to the responses. Three prizes of \$50 each were awarded.

Instruments

Three subscales of the Multidimensional Body-Self Relations Questionnaire (Brown, Cash, & Mikulka, 1990) were used to assess body image: appearance orientation, appearance evaluation, and body-areas satisfaction. Each subscale is measured on a 5-point, Likert-type scale ranging from *strongly disagree* to *strongly agree*. Higher scores indicate healthier or stronger body image. Appearance orientation is investment in one's appearance. This scale has 12 questions. Sample items include "Before going out in public, I always notice how I look," and "I am careful to buy clothing that will make me look my best." Scores for this subscale range from 12 to 60. The subscale has demonstrated satisfactory internal consistency (e.g., .85; Cash, 1996). Appearance evaluation is a general satisfaction with one's body. This scale has 7 questions. Sample questions include "I like my looks just the way they are," and "Most people would consider me good looking." Scores for this subscale range from 7 to 35. The subscale has demonstrated satisfactory internal consistency and test-retest reliability (e.g., .88 and .91, respectively; Cash, 1996; Muth & Cash, 1997). The body-areas satisfaction scale measures one's satisfaction with specific body areas: face, hair, lower torso, mid torso, upper torso, muscle tone, weight, height, and overall appearance. Individual body area scores range from 1 to 5. The subscale has demonstrated satisfactory reliability (e.g., .80; Cash, 1989). These scales have been used with research on body image in relation to appearance self-schema (Jung, Lennon, & Rudd, 2001), gender (Muth & Cash, 1997), and weight training (Williams & Cash, 2001).

The Nungesser Homosexual Attitudes Inventory (Nungesser, 1983) was used to assess internalized homonegativity. The scale is intended to not only assess attitudes about one's own gay sexual orientation but also to assess attitudes about gay people in general. It comprises three subscales: attitudes toward one's own gay sexual orientation (10 items), attitudes toward others' gay sexual orientation (12 items), and attitudes toward revealing one's gay sexual orientation to others (12 items). Sample questions for the attitudes toward one's own gay sexual orientation subscale include "I am glad to be gay," and "My sexual orientation does not make me unhappy." Sample questions for the attitudes toward others' gay sexual

orientation subscale include "A gay sexual orientation is not as good as heterosexuality," and "Marriage between gay people should be legalized." Sample questions for the attitudes toward revealing one's gay sexual orientation to others subscale include "When I tell my friends that I am gay, I do not worry that they will try to remember things about me that would make me appear to fit the stereotype of a gay man," and "If men knew I was gay, I am afraid they would begin to avoid me." The scales have shown satisfactory reliabilities (e.g., .94, .88, and .91, respectively; Nungesser, 1983). Participants indicate their responses to the 34 questions on 5-point, Likert-type scales (1 = *strongly disagree*; 5 = *strongly agree*). They also have the option to answer "not applicable." Each subscale is averaged to create a score, which ranges between 1 and 5, and all three subscale averages are then added to create a composite score, which ranges between 3 and 15. Higher scores reflect lower levels of internalized homonegativity. This questionnaire has been used in research on internalized homonegativity and the following variables: shame (Allen & Oleson, 1999), distress and self-esteem (Shidlo, 1994), and identity (Dube, 2000). The Nungesser Homosexual Attitudes Inventory has demonstrated satisfactory reliability (e.g., alpha coefficient of .95; Nungesser, 1983).

The Rosenberg Self-Esteem Inventory (Rosenberg, 1979) is a widely used, 10-item, Likert-type scale that measures global self-esteem as a continuous variable. Scores range from 10 to 50, with higher scores indicating stronger self-esteem. Sample questions include "On the whole I am satisfied with myself," and "I am able to do things as well as most other people." Participants indicate their responses to the 10 questions on 5-point, Likert-type scales (1 = *strongly agree*; 5 = *strongly disagree*). Although the original scale used 4 points, 5 points are typically used so that participants do not give a forced-choice response. The Rosenberg Self-Esteem Inventory has demonstrated satisfactory reliabilities (e.g., .82 and .88; Rosenberg, 1965, 1979). It has been used in research on gender roles, body satisfaction, appearance-management behaviors (Lennon & Rudd, 1994), and body-image-idealized appearance (Lennon et al., 1999).

The Eating Attitudes Test-26 (Garner, Olmsted, Bohr, & Garfinkel, 1982) measures eating disturbance. Participants indicate their responses to 26 questions on 6-point, Likert-type scales (1 = *always*; 6 = *never*). The measure is divided into three subscales: dieting behaviors (13 items), bulimic behaviors (6 items), and oral control (7 items). For all subscales, responses are collapsed, using a score of 3 for *always*, 2 for *very often*, 1 for *often*, and 0 for *sometimes*, *rarely*, and *never* (Garner et al., 1982). Scores on the dieting subscale range from 0 to 39, scores on the bulimic behavior subscale range from 0 to 18, and scores on the oral control subscale range from 0 to 21. A total score is calculated by summing the three subscales, resulting in a range of scores from 0 to 78. For all subscales, higher scores indicate higher eating disturbance, and a total score of 20 or above is the clinical cut-off point suggesting an eating disorder (Garner et al., 1982). Dieting behaviors are behaviors that actively restrict particular foods and limit food intake. Sample questions of this subscale include "[Do you] engage in dieting behavior?" and "[Do you] avoid foods with sugar in them?" Bulimic behaviors are behaviors that include bingeing and purging. Sample questions of this subscale include "[Do you] have an impulse to vomit after meals?" and "[Do you] feel that food controls [your] life?" Oral control behaviors are anorexic behaviors, such as extreme food restriction. Sample questions of this subscale include "[Do you] feel that others would prefer [you to] eat more?" and "[Do you] avoid eating when hungry?" The

Eating Attitudes Test–26 has been used in research analyzing eating behaviors in conjunction with other variables such as gender and sexual orientation (Olivardia, Pope, & Mangweth, 1995), self-esteem and anxiety (Kostanski & Gullone, 1998), and self-esteem and exercise (Silberstein et al., 1989). The Eating Attitudes Test–26 has been previously used with male samples (Nelson, Hughes, Katz, & Searight, 1999; Russell & Keel, 2002; Siever, 1994) and has a demonstrated satisfactory reliability (e.g., .90; Garner et al., 1982).

A demographic questionnaire included age, race, income, education, geographic region, sexual orientation, and relationship status. Participants identified themselves as heterosexual, gay, or bisexual by a check-off system; heterosexual and bisexual responses were discarded ($n = 21$).

Data Collection and Analysis

Data were collected for a 3-week period using an Internet-based questionnaire. Data were downloaded from the Web site in a text file. Statistical Package for the Social Sciences (SPSS) software was used to analyze the data, which included stepwise regression, analysis of variance, frequencies, and means.

RESULTS

Demographics

Data for 213 gay male participants were analyzed. Participants were mostly White ($n = 186$; 87.3%), single ($n = 99$; 46.5%), resided in the United States ($n = 202$; 94.8%), and had some college experience ($n = 179$, or 84%). Of those residing in the United States, most lived in Ohio ($n = 69$; 32%) and California ($n = 55$; 26%), with the remaining residing in 26 other states. Participants' ages ranged from 18 to 62 ($M = 34.3$; $SD = 10.3$), and the most common category selected for income (after taxes) was \$20,000 to \$40,000 ($n = 65$; 30.5%). A scatter-plot examination and frequencies showed there were no outliers among the data.

To determine whether age affected any of the variables, a one-way ANOVA was performed. Responses were grouped into three age categories by examining the natural groupings among the data (younger than 30, 30 to 39, and older than 39) for analysis. Results demonstrated no significant differences for internalized homonegativity, $F(2, 212) = 1.75, p = .18$; body image, $F(2, 204) = 1.34, p = .27$; self-esteem, $F(2, 209) = .26, p = .77$; and disordered eating scores, $F(2, 211) = .56, p = .57$.

Descriptive Statistics

Means and standard deviations for this sample are reported in Table 1. Overall, the sample had relatively healthy body image ($M = 94$ out of 133), low internalized homonegativity ($M = 12$ out of 15), high self-esteem ($M = 39$ out of 50), and did not have clinical signs of any eating disorders ($M = 7$ out of 84). The dieting subscale of the Eating Attitudes Test–26, however, was highly skewed toward nonrisky dieting behaviors.

Cronbach's α was used to test the reliability of the measures. All reliabilities are also reported in Table 1. On the attitudes toward others homosexuality subscale of the Nungesser Homosexual Attitudes Inventory, one item was deleted because of

TABLE 1: Means, Standard Deviations, Ranges, and Reliabilities of Subscales

<i>Source</i>	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>Cronbach's α</i>	<i>N</i>
MBSRQ	94.01	14.07	52 to 133	.88	195
Appearance orientation	42.0	9.05	17 to 60	.90	202
Appearance evaluation	22.73	5.84	7 to 35	.89	208
Appearance satisfaction	3.46	.917	1 to 5	.82	209
NHAI	12.03	1.59	7 to 15	.91	199
Attitudes toward one's homosexuality	4.08	.63	2 to 5	.79	207
Attitudes toward others' homosexuality	3.97	.47	2 to 5	.70	207
Attitudes toward revealing one's homosexuality to others	3.98	.70	2 to 5	.86	203
EAT-26	7.29	7.04	0 to 46	.83	196
Dieting	5.27	5.86	0 to 31	.84	204
Bulimia	0.48	1.37	0 to 9	.70	209
Oral Control	1.52	1.91	0 to 12	.45	205
RSEI	39.78	6.86	16 to 50	.88	205

NOTE: MBSRQ = Multidimensional Body-Self Relations Questionnaire; NHAI = Nungesser Homosexual Attitudes Inventory; EAT = Eating Attitudes Test; RSEI = Rosenberg Self-Esteem Inventory.

TABLE 2: Summary of Correlations Between Body Image, Internalized Homonegativity, Self-Esteem, and Eating Disturbance

<i>Subscale</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Participants (<i>n</i> = 213)				
1. MBSRQ	—	-.25**	.37**	-.10
2. NHAI		—	-.32**	.14*
3. RSEI			—	-.18*
4. EAT-26				—

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

its low reliability. All scales but one were deemed acceptable; the Oral Control subscale was removed from further analysis because of its low reliability.

Correlation analyses showed that responses for the Multidimensional Body-Self Relations Questionnaire, Eating Attitudes Test-26, Rosenberg Self-Esteem Inventory, and Nungesser Homosexual Attitudes Inventory were weakly associated with each other, as seen in Table 2. Internalized homonegativity had a weak negative association with body image ($r = -.235, p < .01$), self-esteem ($r = -.318, p < .01$), and a weak positive association with eating disturbance ($r = .141, p < .05$). Therefore, higher internalization of homonegative attitudes was weakly associated with lower body image, lower self-esteem, and higher eating disturbance.

Stepwise regression was used to test the hypotheses. Stepwise regression was used to evaluate the contribution of variables independently while controlling for others. Variables were entered with $F \leq .050$ and removed with $F \geq 100$. The subscales of the Nungesser Homosexual Attitudes Inventory served as the independent variables, whereas appearance satisfaction, appearance evaluation, self-esteem, and the subscales of the Eating Attitudes Test-26 served as the dependent variables.

TABLE 3: Summary of Regression Analysis for Attitudes Toward Own Homosexuality Predicting Appearance Satisfaction

Variable	B	SE B	β
Step 1			
Attitudes toward own homosexuality	3.38	.65	.34*

NOTE: $R^2 = .117$ for Step 1.* $p < .001$.**TABLE 4: Summary of Regression Analysis for Attitudes Toward Own Homosexuality Predicting Appearance Evaluation**

Model	B	SE B	β
Step 1			
Attitudes toward own homosexuality	2.91	.62	.31*

NOTE: $R^2 = .097$ for Step 1.* $p < .001$.**TABLE 5: Summary of Regression Analysis for Attitudes Toward Own Homosexuality Predicting Self-Esteem**

Model	B	SE B	β
Step 1			
Attitudes toward own homosexuality	5.12	.68	.47*

NOTE: $R^2 = .216$ for Step 1.* $p < .001$.

Results revealed that only the variable of attitudes toward one's own homosexuality was significantly related to appearance satisfaction, $F(3, 208) = 27.49$, $p < .001$. Attitudes toward one's own homosexuality accounted for 34% ($R^2 = .34$, $p = .001$) of the explained variance in appearance satisfaction, as seen in Table 3. When appearance evaluation was tested, results indicated that only the variable attitudes toward one's own homosexuality was significantly related to the model, $F(3, 208) = 22.31$, $p < .001$, explaining roughly 31% of the variance in appearance evaluation ($p = .001$, $R^2 = .312$). None of the components of internalized homonegativity contributed to appearance orientation, $F(3, 208) = .92$, $p = .338$. Therefore, Hypothesis 1a (attitudes toward one's gay sexual orientation will predict body image) was accepted, and Hypotheses 1b and 1c were not accepted.

Results also revealed that only the variable of attitudes toward one's own homosexuality was significantly related to self-esteem, $F(3, 209) = 57.37$, $p < .001$, explaining roughly 47% of the variance in self-esteem ($R^2 = .465$, $p = .001$), as seen in Table 5. Therefore, Hypothesis 2a (attitudes toward one's gay sexual orientation will predict self-esteem) was accepted, and Hypotheses 2b and 2c were not accepted.

Finally, results revealed that only the variable of attitudes toward one's gay sexual orientation was significantly related to dieting, $F(3, 202) = 8.14$, $p = .005$; however, the negative beta ($-.193$) indicates this model was actually null. Only the

TABLE 6: Summary of Regression Analysis for Attitudes Toward Others' Homosexuality Predicting Bulimic Behaviors

<i>Model</i>	<i>B</i>	<i>SE B</i>	<i>β</i>
Step 1			
Attitudes toward others' homosexuality	-.28	.14	-.14
Step 2			
Attitudes toward revealing one's homosexuality	-.57	.18	-.29
Attitudes toward others' homosexuality	.68	.27	.22*

NOTE: $R^2 = .020$ for Step 1; $\Delta R^2 = .028$ for Step 2.

* $p < .001$.

variable of attitudes toward others' homosexuality was significantly related to bulimic behaviors, $F(3, 209) = 5.25, p = .006$. Attitudes toward others' homosexuality explained 17% of the variance in bulimic behaviors ($R^2 = .170, p = .014$), as seen in Table 6. Therefore, Hypothesis 3b (attitudes toward others' homosexuality will predict eating disturbance) was accepted, and Hypotheses 3a and 3c were not accepted.

DISCUSSION, CONCLUSIONS, & IMPLICATIONS

This research investigated the connection between internalized homonegativity and body image, self-esteem, and eating behaviors. These results should be interpreted with caution given that the participants had a relatively high level of self-esteem, a relatively high level of body satisfaction, and a relatively low level of internalized homonegativity. Moreover, any discussion about the connection between these variables must be tempered by the fact that this sample had relatively low internalized homonegativity and a relatively healthy body image. That these two variables were skewed may have affected the outcome. No doubt, a sample that more broadly represented internalized homonegativity and body image would have yielded different results. Therefore, the discussion should be read with this in mind.

The results demonstrated that attitudes toward one's own gay sexual orientation predicted appearance evaluation, appearance satisfaction, and self-esteem, whereas attitudes toward others' gay sexual orientation predicted bulimic behaviors. This means that how a gay man feels toward his sexual orientation affects his attitudes toward his body and toward his sense of personal worth. Yet the variance explained was rather low. Attitudes toward one's gay sexual orientation only explained 34% of the variance in appearance satisfaction, 31% of the variance in appearance evaluation, and 47% of the variance in self-esteem, whereas attitudes toward others' gay sexual orientation explained 17% of the variance in bulimic behaviors. These results should be interpreted with caution as it is likely that other factors above and beyond the items contained in the internalized homonegativity subscales are at work here.

The connection between internalized homonegativity and self-esteem supports prior research (e.g., Allen & Oleson, 1999; Shidlo, 1994), which demonstrated that internalized homonegativity is negatively associated with self-esteem, and

advances the literature by showing a specific component of internalized homonegativity (i.e., attitudes toward one's homosexuality) to be a predictor of self-esteem. Allen and Oleson (1999) and Shidlo (1994) demonstrated a correlation between self-esteem and internalized homonegativity and used the composite score of the Nungesser Homosexual Attitudes Inventory to assess internalized homonegativity. The study at hand examined the three subscales of the Nungesser Homosexual Attitudes Inventory and determined that attitudes toward one's gay sexual orientation predict self-esteem. Thus, if a gay man wanted to raise self-esteem, he would need to work on his attitudes toward his own sexual orientation, rather than what he thinks of gay people in general or how he feels about revealing his sexual orientation to others.

The finding that no dimension of internalized homonegativity predicted appearance orientation may mean that the degree to which a man takes interest in his personal appearance is not tempered by homonegative attitudes. This is a curious finding given that the public often presumes that gay men are attuned to their appearance (Gettleman & Thompson, 1993; Siever, 1994) but may indicate a social change toward investment in appearance. Indeed, given the recent surge of metrosexual (heterosexual men who invest time and money in their appearance) aesthetics, the stigma attached to men's investment in their self-presentations may be waning. However, it is important to remember that these participants had low internalized homonegativity levels, so results may not be replicable given a sample with high internalized homonegativity levels.

Internalized homonegativity did not predict dieting, and only one component of internalized homonegativity—attitudes toward others' gay sexual orientation—predicted bulimic behaviors. This finding indicates that—at least for this sample—restrictive food behaviors are not used to create an appearance aesthetic because of feelings about one's own gay sexual orientation. Restrictive food behaviors may be employed by gay men for other aesthetic reasons, such as ideals of beauty or the notion that a thin body will enhance sociability and desirability. Does the lack of a connection between internalized homonegativity and dieting indicate that dieting has become so prevalent in our society that it is no longer associated with just women and gay men? Is it that men engage in dieting not only for the aesthetic value but also for the health benefits as well? These questions should be considered with the fact that the sample was highly skewed toward nondieting behaviors.

The finding that attitudes toward others' gay sexual orientation predicted bulimic behaviors is difficult to explain. This subscale assesses how one feels about gay people in general, and participants respond to questions about perceptions of gay people and gay lifestyles. The findings of this research may indicate that some gay men behave in a way that they feel is expected of gay men. Because it is believed that gay men are typically thin and effeminate and suffer from risky eating behaviors (Gettleman & Thompson, 1993), it may be that some men engage in these behaviors as a self-fulfilling prophecy. That is, they believe all gay men are bulimic, so therefore they should engage in bulimic behaviors as well. Of course, only 17% of the variance was explained by attitudes toward others' gay sexual orientation, so it is likely that other factors are working as well, such as a desire to lose weight or trauma from the person's past.

These findings have implications for the field of family and consumer science and can be used by counselors and educators. Therapists can assist gay clientele

dealing with body image issues by knowing that appearance satisfaction and appearance evaluation are related to how one feels toward one's gay sexual orientation, which in turn may be related to a family dynamic. For example, strong homonegative attitudes held by a family member could be related to the patient's body image problems. Therapists can interpret low self-esteem in gay clientele as a function of attitudes toward his own sexual orientation and can develop strategies to improve feelings toward his own sexual orientation as well as perceived feelings (or attitudes) by others toward his orientation.

Educators can also find this information useful in their career. Public events, such as body image bazaars designed to educate people on body image issues, can highlight internalized homonegativity as one of the variables associated with bulimia, appearance evaluation, and appearance satisfaction among gay men. In addition, a guest speaker having dealt with these problems can offer a personal perspective. Child development programs can incorporate the findings into parenting classes, and educators can create public programs to inform parents that their attitudes toward gay people can affect children deeply on levels of self-esteem and eating disturbance. Parents should also be made aware that even subtle heterosexist behaviors can be internalized by children, possibly leading to problems with low self-esteem and bulimic behaviors.

The theory of cognitive dissonance (Festinger, 1957) was used as a framework for this study. Findings such as feelings toward one's sexual orientation affecting appearance evaluations and appearance satisfaction are supported by the tenets of this theory. However, findings such as the connection between bulimic behaviors and attitudes toward others' gay sexual orientation indicate that another theory, that of social identity (Tajfel & Turner, 1979) may also be explanatory. According to social identity theory, people will categorize, identify, and compare themselves to others. Hence, gay men will categorize the world as gay or heterosexual, identify with the gay category, and then compare their bodies to other gay men. If their bodies do not meet the perceived social standards (i.e., thin), then they may resort to bulimic behaviors to achieve their desired aesthetic.

Limitations

This study may have been limited by the use of an Internet questionnaire because this methodology limits the scope of the sample to those with computers and Internet access. However, recent research on Internet and Web-based methodologies demonstrates that respondents of such questionnaires and respondents of traditional mailed or phoned questionnaires do not differ (Chang, 2002; Penkala, 2004). One problem may be the high dropout rate of participants taking an Internet questionnaire (Birnbau, 2004), for which this study does not have statistics given that only completed questionnaires were downloaded. The use of a Web-based questionnaire may have limited the sample to those who were computer savvy or to only those who were searching the Internet using the key words specified by the researchers. Thus, the method used to collect data may have attracted gay men who were comfortable with their sexual orientation, resulting in the low level of internalized homonegativity and high level of self-esteem found in this sample.

Another limitation may be the omission of an instrument to assess one's drive for muscularity. Given that a significant percentage of gay men strive for a muscular and

lean body (Pope et al., 2000; Yelland & Tiggemann, 2003), the omission of such a measure limits the scope of the results, and thus no direct connections can be made.

Data regarding the specific subculture to which the sample may have belonged in the gay community were not gathered either. This may have limited the results as well because different subcultures within the gay community hold different views regarding the body and aesthetics in general. For example, the Leather subculture reveres hyper-muscular bodies (Rubin, 1998), whereas the Bear subculture reveres overweight bodies (Wright, 1996).

Future Studies

These findings can lead to future studies on body image and internalized homonegativity. Future research can examine bodybuilding and motives for bodybuilding among gay men. Many motives may exist, such as personal pleasure, social activity, peer pressure, attractiveness, and masculinity. Bodybuilding and self-esteem are related (Blouin & Goldfield, 1995; Oliosi, Grave, & Burlini, 1999), and as self-esteem and internalized homonegativity are linked, the role that internalized homonegativity plays in bodybuilding should be investigated. It may be that gay men who bodybuild have low self-esteem and are more concerned with appearing stereotypically heterosexual. A study can examine which motives are the strongest and how these motives interplay with internalized homonegativity and self-esteem. Given that bodybuilding is associated with steroid use (Brill & Kean, 1994; Kleiner et al., 1994), a study of this nature could also shed light on risk taking with regard to internalized homonegativity.

Another potential study can investigate internalized homonegativity, body image, and social anxiety. Gay men with high levels of internalized homonegativity and body dissatisfaction may experience increased amounts of social anxiety. Given that social anxiety is linked to risky grooming behaviors (Reilly & Rudd, in press), a study of this nature could add to the understanding of how internalized homonegativity is manifested. It is likely that internalized homonegativity is related to social anxiety given that both disorders are characterized by a person's fear of how other people will perceive him.

NOTE

1. When published in 1983, the term *homosexual* was the accepted term for a gay sexual orientation. To avoid confusion between the current use of the terms *homosexual* (behavior) and *gay* (identity), the term *gay sexual orientation* is substituted for homosexual.

REFERENCES

- Adam, B. D. (2000). Love and sex in constructing identity among men who have sex with men. *International Journal of Sexuality and Gender Studies*, 5(4), 325-339.
- Allen, D. J., & Oleson, T. (1999). Shame and internalized homonegativity in gay men. *Journal of Homosexuality*, 37(3), 33-43.
- Aronson, E. (1992). The return of the repressed: Dissonance theory makes a comeback. *Psychological Inquiry*, 3(4), 303-311.
- Beren, S. E., Hayden, H. A., Wilfey, D. E., & Grilo, C. M. (1996). The influence of sexual orientation on body dissatisfaction in adult men and women. *International Journal of Eating Disorders*, 20(2), 135-141.

- Birnbaum, M. (2004). Human research and data collection via the Internet. *Annual Review of Psychology, 55*, 803-832.
- Blouin, A. G., & Goldfield, G. S. (1995). Body image and steroid use in male bodybuilders. *International Journal of Eating Disorders, 18*(2), 159-165.
- Boroughs, M., & Thompson, J. K. (2002). Exercise status and sexual orientation as moderators of body image disturbance and eating disorders in men. *International Journal of Eating Disorders, 31*(3), 307-311.
- Brill, J., & Kean, M. (1994). Supplementation patterns of competitive male and female body builders. *International Journal of Sports Nutrition, 4*, 398-412.
- Brown, T. A., Cash, T. F., & Mikulka, P. J. (1990). Attitudinal body image assessment: Factor analysis of the Body-Self Relations Questionnaire. *Journal of Personality Assessment, 55*, 135-144.
- Burke, T., Epting, F., & Raskin, J. (1994). Who is a homosexual? A critique of the heterosexual-homosexual dimension. *The Humanistic Perspective, 22*, 353-369.
- Cash, T. F. (1989). Body-image affect: Gestalt versus summing the parts. *Perceptual and Motor Skills, 69*(1), 17-18.
- Cash, T. F. (1996). The treatment of body image disturbances. In J. K. Thompson (Ed.), *Body image, eating disorders, and obesity: An integrative guide of assessment and treatment* (pp. 83-107). Washington, DC: American Psychological Association.
- Cass, V. C. (1979). Homosexual identity formation: A theoretical model. *Journal of Homosexuality, 4*, 219-235.
- Cass, V. C. (1984). Homosexual identity formation: Testing a theoretical model. *Journal of Sex Research, 20*, 143-167.
- Chang, L. (2002). A comparison of samples and response quality obtained from RDD telephone survey methodology and Internet survey methodology. *Dissertation Abstracts International, 62*, 8B.
- Cole, S. (2000). "Macho man": Clones and the development of a masculine stereotype. *Fashion Theory, 4*(2), 125-140.
- Dube, E. M. (2000). The role of sexual behavior in the identification process of gay and bisexual males. *Journal of Sex Research, 37*(2), 123-132.
- Eliason, M. J. (1996). Identify formation for lesbian, bisexual, and gay persons: Beyond a "minoritizing" view. *Journal of Homosexuality, 30*(3), 31-58.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Palo Alto, CA: Stanford University Press.
- Forstein, M. (1988). Homophobia: An overview. *Psychiatric Annals, 18*, 33-36.
- Frable, D. E. S., Platt, L., & Hoey, S. (1998). Concealable stigmas and positive self-perceptions: Feeling better around similar others. *Journal of Personality and Social Psychology, 74*(4), 909-922.
- Frable, D. E. S., Wortman, C., & Joseph, J. (1997). Predicting self-esteem, well-being, and distress in a cohort of gay men: The importance of cultural stigma, personal visibility, community networks, and positive identity. *Journal of Personality, 65*(3), 599-624.
- Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The Eating Attitudes Test: Psychometric features and clinical correlates. *Psychological Medicine, 12*, 871-878.
- Gary, C., Russell, P., & Blockley, S. (1991). The effects of helping behaviour of wearing pro-gay identification. *British Journal of Social Psychology, 30*(2), 171-178.
- Gettleman, T. E., & Thompson, J. K. (1993). Actual differences and stereotypical perceptions in body image and eating disturbance: A comparison of male and female heterosexual and homosexual samples. *Sex Roles, 29*(7/8), 545-562.
- Gonsiorek, J. C. (1988). Mental health issues of gay and lesbian adolescents. *Journal of Adolescent Health Care, 9*, 114-122.
- Herek, G. M., Gillis, J. R., Cogan, J. L., & Glunt, K. (1997). Hate crime victimization among lesbian, gay, and bisexual adults. *Journal of Interpersonal Violence, 12*(2), 195-215.
- Hudson, W., & Ricketts, W. A. (1980). A strategy for measurement of homophobia. *Journal of Homosexuality, 5*, 357-371.
- Jacobs, J. A., & Teaford, W. H. (1980). Factors affecting the self-esteem of the homosexual individual. *Journal of Homosexuality, 5*, 373-382.
- Jones, D. A. (1996). Discrimination against same-sex couples in hotel reservation policies. *Journal of Homosexuality, 31*(1/2), 153-160.
- Jung, J., Lennon, S. L., & Rudd, N. A. (2001). Self-schema or self-discrepancy? Which best explains body image? *Clothing and Textiles Research Journal, 19*(4), 171-184.
- Kates, S. M. (2000). Out of the closet and out on the street! Gay men and their brand relationships. *Psychology and Marketing, 17*(6), 493-513.
- Kiker, V. L., & Miller, A. R. (1967). Perceptual judgment of physiques as a factor in social image. *Perceptual and Motor Skills, 23*, 1013-1014.

- Kleiner, S., Bazzarre, T., & Ainsworth, B. (1994). Nutritional status of nationally ranked elite body builders. *International Journal of Sports Nutrition*, 4, 54-69.
- Koff, E., Rierdan, J., & Stubbs, M. L. (1990). Gender, body image, and self-concept in early adolescence. *Journal of Early Adolescence*, 10, 56-68.
- Kostanski, M., & Gullone, E. (1998). Adolescent body image dissatisfaction: Relationships with self-esteem, anxiety, and depression controlling for body mass. *Journal of Child Psychology and Psychiatry*, 39(2), 255-262.
- Lennon, S. J., Lillethun, A., & Buckland, S. S. (1999). Attitudes towards social comparison as a function of self-esteem, idealized appearance and body image. *Family and Consumer Sciences Research Journal*, 27(4), 379-405.
- Lennon, S. J., & Rudd, N. A. (1994). Linkages between attitudes towards gender roles, body satisfaction, self-esteem, and appearance management behaviors in women. *Family and Consumer Sciences Research Journal*, 23(2), 94-117.
- Magel, N. (2002). Psychosocial predictors of health risk-taking behaviors in gay men (Doctoral dissertation, Alliant International University). *Dissertation Abstracts International*, 63(5), 2593B. (UMI No. 3052997)
- Margolies, L., Becher, M., & Jackson-Brewer, K. (1987). Internalized homophobia: Identifying and treating the oppressor within. In Boston Lesbian Psychologies Collective (Eds.), *Lesbian psychologies: Explanation and challenges* (pp. 229-241). Urbana: University of Illinois Press.
- Massey, S. G., & Ouellette, S. C. (1996). Heterosexual bias in the identity self-portraits of gay men, lesbians, and bisexuals. *Journal of Homosexuality*, 32(1), 57-76.
- Meyer, I. H. (1993). Prejudice and pride: Minority stress and mental health in gay men. (Doctoral dissertation, Columbia University). *Dissertation Abstracts International*, 54(12), 6499B. (UMI No. 9412815)
- Morrison, M. A., Morrison, T. G., & Sager, C. (2004). Does body satisfaction differ between gay men and lesbian women and heterosexual men and women? A meta-analytic review. *Body Image*, 1, 127-138.
- Muth, J. L., & Cash, T. F. (1997). Body-image attitudes: What difference does gender make? *Journal of Applied Social Psychology*, 27, 1438-1452.
- Nelson, W. L., Hughes, H. M., Katz, B., & Searight, H. R. (1999). Anorexic eating attitudes and behaviors of male and female college students. *Adolescence*, 34(135), 621-634.
- Nicholson, W. D., & Long, B. C. (1990). Self-esteem, social support, internalized homophobia, and coping strategies of HIV+ gay men. *Journal of Consulting and Clinical Psychology*, 58, 873-876.
- Nungesser, L. G. (1983). *Homosexual acts, actors, and identities*. New York: Praeger.
- Olios, M., Grave, R. D., & Burlini, S. (1999). Eating attitudes in noncompetitive male body builders. *Eating Disorders*, 7, 227-233.
- Olivardia, R., Pope, H.G. Jr., & Mangweth, B. (1995). Eating disorders in college men. *The American Journal of Psychiatry*, 152, 1279-1285.
- Penkala, J. M. (2004). Internet vs. access point intercept survey to obtain stakeholder information. *Human Dimensions of Wildlife*, 9(1), 69-78.
- Pope, H. G., Jr., Phillips, K. A., & Olivardia, R. (2000). *The Adonis Complex: The secret crisis of male body obsession*. New York: The Free Press.
- Prieur, A. (1990). Norwegian gay men: Reasons for continued practice of unsafe sex. *AIDS Education and Prevention*, 2, 109-115.
- Reilly, A. H., & Rudd, N. A. (2002, August 7-10). *Correlations of stress and appearance management vis-à-vis sexual orientation*. Paper presented at the 2002 Annual Meeting of the International Textile and Apparel Association, New York.
- Reilly, A. H., & Rudd, N. A. (in press). Stress and dress: Investigating the relationship between social anxiety and appearance management among gay and straight men. *Journal of Homosexuality*.
- Ridinger, R. B. M. (1997). Bearaphernalia: An exercise in social definition. In L. Wright (Ed.), *The Bear book: Readings in the history and evolution of a gay male subculture* (pp. 83-88). New York: Harrington Park Press.
- Rosenberg, M. (1965). *Society and adolescent self-image*. Princeton, NJ: Princeton University Press.
- Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books.
- Rubin, G. S. (1998). The miracle mile: South of Market and gay male leather 1962-1997. In J. Brook, C. Carlsson, & N. J. Peters (Eds.), *Reclaiming San Francisco: History, politics, culture: A city lights anthology* (pp. 247-278). San Francisco: City Lights.
- Rudd, N. A. (1996). Appearance and self-presentation research in gay consumer cultures: Issues and impact. *Journal of Homosexuality*, 31(1/2), 109-134.

- Rudd, N. A., & Lennon, S. J. (1994). Aesthetics of the body and social identity. In M. R. DeLong & A. M. Fiore (Eds.), *Aesthetics of textiles and clothing: Advancing multi-disciplinary perspectives* (pp. 163-175). Monument, CO: International Textile and Apparel Association.
- Russell, C. J., & Keel, P. (2002). Homosexuality as a specific risk factor for eating disorders in men. *International Journal of Eating Disorders, 31*(3), 300-306.
- Savin-Williams, R. (1990). *Gay and lesbian youth: Expressions of identity*. New York: Hemisphere.
- Sergios, P., & Cody, J. (1986). Importance of physical attractiveness and social assertiveness skills in male homosexual dating behavior and partner selection. *Journal of Homosexuality, 12*(2), 71-84.
- Shidlo, A. (1994). Internalized homophobia: Conceptual and empirical issues in measurement. In B. Greene & G. M. Herek (Eds.), *Lesbian and gay psychology: Theory, research, and clinical applications* (pp. 176-205). Thousand Oaks, CA: Sage.
- Siever, M. D. (1994). Sexual orientation and gender as factors in socioculturally acquired vulnerability to body dissatisfaction and eating disorders. *Journal of Consulting and Clinical Psychology, 62*(2), 252-260.
- Silberstein, L. R., Mishkind, M. E., Striegel-Moore, R. H., Timko, C., & Rodin, J. (1989). Men and their bodies: A comparison of homosexual and heterosexual men. *Psychosomatic Medicine, 51*, 337-346.
- Stokes, J. P., & Peterson, J. L. (1998). Homonegativity, self-esteem, and risk for HIV among African American men who have sex with men. *AIDS Education and Prevention, 10*(3), 278-292.
- Stone, J., & Cooper, J. (2001). A self-standards model of cognitive dissonance. *Journal of Experimental Social Psychology, 37*(3), 228-243.
- Stone, J., Cooper, J., Wiegand, A. W., & Aronson, E. (1997). When exemplification fails: Hypocrisy and motive for self-integrity. *Journal of Personality and Social Psychology, 72*(1), 54-65.
- Tajfel, H. (1981). *Human groups and social categories*. Cambridge, UK: Cambridge University Press.
- Tajfel, H., & Turner, J. C. (1986). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks-Cole.
- Thompson, J. K. (1990). *Body image disturbance: Assessment and treatment*. Elmsford, NY: Pergamon.
- Thompson, J. K., & Altabe, M. N. (1991). Psychometric qualities of the Figure Rating Scale. *International Journal of Eating Disorders, 10*, 615-619.
- Thompson, J. K., Heinberg, L. J., Altabe, M., & Tantleff-Dunn, S. (1999). *Exacting beauty: Theory, assessment, and treatment, of body image disturbance*. Washington, DC: American Psychological Association.
- Williams, P. A., & Cash, T. F. (2001). Effects of circuit weight training program on the body images of college students. *International Journal of Eating Disorders, 30*(1), 75-82.
- Williamson, I. R. (2000). Internalized homonegativity and health issues affecting lesbians and gay men. *Health Education Review, 15*(1), 97-102.
- Wright, L. (1996). A concise history of self-identifying Bears. In L. Wright (Ed.), *The Bear book: Readings in the history and evolution of a gay male subculture* (pp. 21-40). New York: Harrington Park Press.
- Yager, J., Kurtzman, F., Landsverk, J., & Weismeier, E. (1988). Behaviors and attitudes related to eating disorders in homosexual male college students. *American Journal of Psychiatry, 145*(4), 495-497.
- Yelland, C., & Tiggemann, M. (2003). Muscularity and the gay ideal: Body dissatisfaction and disordered eating in homosexual men. *Eating Behaviours, 4*, 107-116.