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The Relationships Between Sense of Belonging to the Gay Community, Body Image Dissatisfaction, and Self-Esteem Among Australian Gay Men

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Abstract

Body image dissatisfaction has been linked to belonging to the gay community and poor self-esteem among gay men. This study was designed to explore the applicability of a moderation model and a mediation model in explaining the relationships between sense of belonging to the gay community, body image dissatisfaction and self-esteem among 90 self-identified Australian gay men. Participants completed the Psychological subscale of the Sense of Belonging Instrument, The Body Satisfaction Scale, and the Rosenberg Self-Esteem Scale. Results supported the moderation model; the relationship between body image dissatisfaction and self-esteem was found to be statistically significant only at average and high levels of belonging to the gay community. The mediation model was also supported; body image dissatisfaction partially mediated the sense of belonging-self-esteem relation. Educating gay men and health professionals about the possible negative outcomes from “belonging” to an appearance-oriented community appears important.
The Relationships Between Sense of Belonging to the Gay Community, Body Image Dissatisfaction, and Self-Esteem Among Australian Gay Men

Research over the past two decades has indicated that gay men are at greater risk for disordered eating compared to heterosexual men. For example, studies with clinical samples of men with eating disorders show that 20% (Herzog, Bradburn, & Newman, 1990) to 42% (Carlat, Camargo, & Herzog, 1997) of these men are gay men. A recent study found that a combined sample of gay and bisexual men had a higher prevalence of lifetime full syndrome Bulimia Nervosa and any subclinical eating disorder than heterosexual men (Feldman & Meyer, 2007). Using cut-off scores for established self-report measures (BULIT-R and EAT-26), Russell and Keel (2002) found that gay men were more likely to suffer from Bulimia Nervosa (13.8% cf. 0%) and Anorexia Nervosa (20.7% cf. 1.6%) than heterosexual men.

Other research using the EAT-26 showed that gay men (10%) were significantly more likely than heterosexual men (1%) to receive scores indicative of an eating disorder (Strong, Williamson, Netmeyer, & Geer, 2000). Research has shown gay men to score significantly higher than heterosexual men on the EAT-26 (Siever, 1994), the EDI (Boisvert & Harrell, 2009), and on the EDI-2’s Bulimia Nervosa subscale (Yelland & Tiggemann, 2003).

It is also evident that gay men score higher than heterosexual men on self-report measures of a range of risk factors for eating disorders, including dietary restraint, eating concerns, weight concerns, shape concerns (Hospers & Jansen, 2005), dieting (Kaminski, Chapman, Haynes, & Own, 2005; Siever, 1994; Williamson & Hartley, 1998), oral control (Siever, 1994; Williamson & Hartley, 1998), drive for thinness (Siever, 1994; Yelland & Tiggemann, 2003), and food preoccupation (Williamson & Hartley, 1998). Such findings have led to speculation about the relationship between sexual orientation and eating disorders.
Body image concerns have been identified as the critical variable related to hazardous eating behaviours among gay men (Boisvert & Harrell, 2009; Strong et al., 2000). Body image satisfaction results from an evaluation process, and refers to one’s beliefs about one’s physical appearance (Cash, 2002). Definitions of physical attractiveness vary, with particular cultures setting the standard of what is “attractive” (Jackson, 2002). For gay men, attractiveness is defined by physical strength and upper body muscularity, as well as leanness (Yelland & Tiggemann, 2003). Muscularity is a key feature of physical attractiveness (Levesque & Vichesky, 2006; Martins, Tiggemann, & Churchett, 2008), with a low weight-to-chest ratio, or a more V-shaped body, being particularly important (Swami & Tovée, 2008). Although research has documented that men, regardless of their sexual orientation, strive for a slender and muscular ideal (Frederick et al., 2007), it has also been shown gay men are less satisfied with their current level of muscularity (Yelland & Tiggemann, 2003) and desire to be more muscular compared with heterosexual men (Kaminski et al., 2005; Yelland & Tiggemann, 2003). Further, gay men are less satisfied with their bodies overall compared with heterosexual men (e.g., Kaminski et al., 2005; Levesque & Vichesky, 2006; Morrison, Morrison, & Sager, 2004; Peplau et al., 2009; Strong et al., 2000; Yelland & Tiggemann, 2003; Williamson & Hartley, 1998).

The majority of studies that have investigated body image among gay men have been criticised (see Kane, 2009, for a review). Methodological issues, such as small sample sizes, small effect sizes, places of recruitment (e.g., from political organizations, eating disorder clinics), and comparisons of different groups of men (e.g., community samples of gay men and college samples of heterosexual men), raise questions about the veracity of the differences reported in the literature. Research without these limitations has, however, still documented differences between gay and heterosexual men (e.g., Peplau et al., 2009).
Despite such methodological concerns, explanations for the reported differences have been proposed.

There is an emphasis in the gay community on physical attractiveness that appears implicated in the high levels of body image dissatisfaction among gay men (e.g., Yelland & Tiggemann, 2003; Beren, Hayden, Wilfley, & Grilo, 1996). Siever (1994) argued that gay men are seeking to attract a male partner, and may view their bodies as sexual objects as they attempt to please and attract other men. Consequently, gay men experience greater peer pressure to be physically attractive than do heterosexual men (Hospers & Jansen, 2005). If this argument has merit, then gay men who are more integrated within the gay community should experience more body image dissatisfaction, as they would have been more exposed to the norms of physical attractiveness for gay men.

Findings from research investigating the proposed relationship between integration in the gay community and body image dissatisfaction are mixed. For example, Beren et al. (1996) found that affiliation with the gay community (defined as frequency of attending gay activities) accounted for 6% of the variance in body image dissatisfaction among a sample of 58 gay men, after age, BMI, education, and self-esteem were entered in the regression equation. In contrast, Williamson and Spence (2001) found that higher levels of participation in “gay-affirmative community events” predicted less body image dissatisfaction; that participation in the “commercial gay scene” was not associated with body image dissatisfaction; and that level of alienation from the “gay scene” was associated with body image dissatisfaction. As expected, greater internalization of the sociocultural beliefs about the importance of physical attractiveness accounted for 21.8% of the variance in body image dissatisfaction scores. Williamson and Spence concluded that there were benefits of participating in the gay community and that being alienated from the gay community may be detrimental to the well-being of gay men. A recent study of Australian gay men found no
relationship between involvement in the gay community (e.g., friendships, belonging to gay organizations, visiting gay venues) and body image dissatisfaction (Tiggemann, Martins, & Kirkbride, 2007). It is difficult to explain the contradictory results, but different definitions and measures of the key variables (i.e., involvement in the gay community and body image dissatisfaction) may be possible factors.

Given the pressures of striving for the ideal male body that represents physical attractiveness in the gay community, it is not surprising that gay men report lower levels of self-esteem than heterosexual men (Yelland & Tiggemann, 2003). Global self-esteem has been defined as an individual’s overall attitude towards themself as a human being (Rosenberg, 1965). When evaluating oneself, a judgement of worthiness is made and conveyed to others (Coopersmith, 1981). Empirical evidence indicates that body image dissatisfaction is associated with low levels of self-esteem among gay men (Levesque & Vichesky, 2006; Tiggemann et al., 2007; Yelland & Tiggemann, 2003), and that this correlation is stronger for gay men than heterosexual men (McFadden, 2000).

In summary, body image dissatisfaction is a key issue among many gay men, and it has been associated with poor self-esteem. Integration or affiliation with the gay community has been implicated in the development of body image dissatisfaction. Few researchers have, however, incorporated all three variables, namely integration into the gay community, body image dissatisfaction and self-esteem, into the one study.

Recently, Levesque and Vichesky (2006) examined whether integration into the gay community moderated the relation between body image dissatisfaction and self-esteem using a sample of 64 American gay men. “Integration” was defined as involvement in and perceived acceptance by the gay community. Participants responded to questions assessing whether they perceived themselves to be included and accepted in the gay community (e.g., “I feel very included by the gay community”), as well as how frequently they had gone to a
gay bar/club, been to a gay store, attended a gay organization meeting, read gay publications, and visited gay Internet websites during the past year. Results indicated integration into the gay community moderated the relationship between body image satisfaction and self-esteem. Specifically, for gay men who scored low or moderate on integration, body image dissatisfaction predicted low self-esteem. In contrast, for those gay men who scored high on integration, there was no relationship between body image dissatisfaction and self-esteem.

Levesque and Vichesky’s (2006) findings are in contrast with past findings that indicate belonging to the gay community is detrimental for body image satisfaction among gay men. Levesque and Vichesky provided two possible explanations for the moderation effect. First, they proposed that as gay men integrate into the “gay culture”, they learn that the focus on physical attractiveness is only at the surface level, and self-esteem depends on factors other than body image. Second, Levesque and Vichesky proposed that gay men who are integrated within the gay community are a subgroup of men for whom self-esteem is not determined by body image satisfaction. In essence, they argue that because body image dissatisfaction is unrelated to self-esteem among this subgroup of gay men, they are able to integrate into a community that values a particular ideal of physical attractiveness. One of the limitations of this study was the lack of a well validated measure of the key variable of involvement in the gay community. Internal consistency of the involvement factor was low ($\alpha = .61$), whereas the internal consistency of the acceptance factor was higher ($\alpha = .85$).

The second study to investigate the three variables of involvement in the gay community, body image dissatisfaction and self-esteem used an Australian sample of 134 gay men (Tiggemann et al., 2007). Involvement with the gay community was assessed using a 7-item scale developed by the researchers ($\alpha = .81$). “Involvement” was measured across friendships, visiting gay venues, and belonging to gay organizations (e.g., “I generally spend
time in venues that are gay/lesbian hangouts”). Results indicated that involvement in the gay community did not moderate the body image dissatisfaction-self-esteem relation.

In summary, there appears to be just two studies that have investigated whether involvement in the gay community moderates the relationship between body image dissatisfaction and self-esteem. The results of the two studies are inconsistent with each other, and with previous theory and research. These inconsistent results may be due, at least in part, to the different definitions of gay community, concepts being measured (e.g., integration, acceptance, belonging) and questionnaires used. Since researchers have relied on new measures of “involvement”, with limited psychometric data available, replication would benefit from using reliable and valid indices of key variables.

The present study aimed to investigate the relationships between sense of belonging to the gay community, body image dissatisfaction, and self-esteem among gay men, using a psychometrically sound measure of sense of belonging to the gay community. For the purposes of this study, “gay community” refers to a “macro-level” group, where members of the group do not necessarily have direct contact with all other members (Kirkpatrick & Ellis, 2001). This is consistent with Woolwine’s conceptualization of the “imagery gay community”, a national or global community that can be identified with, but to differing degrees of emotional attachment (Woolwine, 2000). “Sense of belonging” was defined as the experience of feeling valued and important within the gay community, and the feeling as though one fits in with those around them (Hagerty, Lynch-Sauer, Patusky, Bouwsema, & Collier, 1992). It was hypothesized that sense of belonging to the gay community would moderate the body image dissatisfaction-self-esteem relationship. In addition to a moderation model, the present study used a mediation model to provide an alternative explanation of how the variables of sense of belonging to gay community, body image and self-esteem might be related. Based on theory and published literature, and consistent with a mediation model, it
was hypothesized that sense of belonging to the gay community would be negatively related to body image dissatisfaction, which in turn, would be negatively related to self-esteem.

Method

Participants

Ninety self-identified gay men from the state of Victoria, Australia, volunteered to complete the questionnaire. The men ranged in age from 18 to 63 years ($M = 31.00$, $SD = 9.79$). Of the participants, 69 (76.7%) men completed the paper version of the questionnaire package and 21 (23.3%) men completed the web-based version of the questionnaire package. The majority of the men were unpartnered ($n = 63$, 70%), had a university education ($n = 70$, 77.8%), and were engaged in full-time employment ($n = 61$, 67.8%).

Materials

The cover letter provided detailed description of the research, the intended use of the results and invited the participant to volunteer. The statement further provided contact numbers of the researchers along with contact numbers of two confidential counselling services, a general telephone counselling service and a telephone counselling service specifically for gay men. Participants were advised to contact the researchers or either of these services in the event the participant experienced any negative effects during or after the completion of the questionnaire.

The Demographic Section of the questionnaire required participants to provide information pertaining to their age, relationship status, highest attained education level, current employment status, and annual income. Sexual orientation was ascertained by one question: “Would you consider yourself to be predominately: gay, bisexual, heterosexual, transgender or unsure?”. The participants who identified themselves as “gay” were included in the study.
The 18-item Psychological subscale of the Sense of Belonging Instrument (Hagerty & Patusky, 1995) assesses an individual’s level of valued involvement, acceptance and perceived fit in a particular environment or community. Consistent with previous research (McLaren, Jude, & McLachlan, 2008), participants were instructed to complete each item in relation to the “Gay Community” (e.g., “I often wonder if there is any place in the Gay Community where I really fit in”, “I would describe myself as a misfit at most Gay social events”; both items are revered scored). Respondents gave ratings on a 4-point scale, where 1 = strongly disagree and 4 = strongly agree. Higher scores indicated a greater sense of belonging. Previous research indicates that the Instrument is a valid and reliable measure of sense of belonging. The test-retest reliability coefficient for the Psychological subscale was .84 over an eight-week period (Hagerty & Patusky, 1995). High internal consistency has been reported for a sample of gay men (Cronbach’s $\alpha = .95$ (McLaren et al., 2008). For the current sample, Cronbach’s $\alpha$ was .93.

The Body Satisfaction Scale (Slade, Newton, Bodi, & Kiemle, 1990) was used to assess an individual’s level of body image satisfaction or dissatisfaction with individual body parts, using a 7-point scale, where 1 = very satisfied and 7 = very unsatisfied. The Body Satisfaction Scale lists 16 body parts, half involving the head (above the neck; e.g., “How satisfied or dissatisfied are you with your nose?”), and the other half involving the body (below the neck, e.g., How satisfied or dissatisfied are you with your chest?”). A total score was calculated, with higher scores indicating overall body image dissatisfaction. Scores on The Body Satisfaction Scale correlated positively with scores on the Body Shape Questionnaire (Cooper, Taylor, Cooper, & Fairburn, 1987; Slade et al., 1990). Acceptable internal consistency has been shown for a variety of samples, with Cronbach’s alpha ranging from .87 to .89 (Slade et al., 1990). Cronbach’s alpha for the current sample was .96.
The 10-item Rosenberg Self-Esteem Scale was designed to measure an individual's global feelings of self-worth (Rosenberg, 1965). It consists of five positively worded items (e.g., I feel I have a number of good qualities) and five negatively worded items (e.g., I feel I do not have much to be proud of). Individuals indicated the extent to which they agreed or disagreed with each of the items on a 4-point rating scale, where 1 = strongly disagree and 4 = strongly agree. Ratings on the negatively worded items were reversed prior to a total score being calculated. Higher scores indicated higher levels of self-esteem. The Rosenberg Self-Esteem Scale is a widely-used measure of self-esteem that has yielded good internal consistency, stability, and validity of scores. For a sample of college students, the test-retest reliability across six assessments over a four year period was $r = .69$, and Cronbach’s alpha was .88 (Robins, Hendin, & Trzesniewski, 2001). Lower levels of self-esteem were related to higher levels of depression and perceived stress among the students. Cronbach’s alpha for the current sample was .87.

Procedure

Ethics approval was granted by the Human Research Ethics Committee of the University of Ballarat. Participants were recruited through various methods over several months. Participants were approached at different settings catering for gay men (e.g., gay bars and clubs), at prominent gay festivals, and through advertisements in two different medical centres catering for gay men. The research was also promoted to the gay community with the aid of key organisations. Participants also collected additional questionnaire packages to pass on to other gay male associates and friends who were not present at the place of recruitment.

The questionnaire package was also available on the internet via advertisements in magazines aimed at gay men. A web address along with a log in name and password was included on the advertisement. An information page was presented on the web site, describing the study and
providing contact phone numbers. The participants were able to complete the questionnaire package on the web site and anonymously send it back to the principal researcher via e-mail.

Participants were informed verbally and through the Plain Language Statement that participation in the study was voluntary. The order of the questionnaires was counterbalanced to minimise any order effects.

**Data Analysis**

A Hierarchical regression analysis was used to examine the moderation effect. Prior to calculating interaction terms for this analysis, the body image dissatisfaction and sense of belonging to the gay community variables were centred using the mean-deviation method proposed by Tabachnick and Fidell (2007). It has been suggested that without using this mean-deviation centering method, interaction terms in regression analysis are susceptible to elevated standard errors of the regression coefficients (Jaccard, Turrisi, & Wan, 1990) and issues of multicollinearity (Cronbach, 1987).

To examine the moderation effect using hierarchical regression, body image dissatisfaction and sense of belonging to the gay community were entered at Step 1. At Step 2, the interaction term (body image dissatisfaction x sense of belonging gay community) was entered. A significant change in $R^2$ from Step 1 to Step 2 would indicate support for the moderation effect.

The mediating effect was examined using the regression analysis approach proposed by Baron and Kenny (1986). The first regression analysis involved the criterion (self esteem) being regressed on the predictor (sense of belonging). Following this, a second regression analysis was conducted in which the mediator (body image dissatisfaction) was regressed on the predictor (sense of belonging). A final regression analysis was conducted in which the criterion (self esteem) was regressed on the predictor (sense of belonging) and the mediator (body image dissatisfaction) simultaneously. Baron and Kenny suggested that mediation can be inferred if the predictor had an effect on the criterion (equation 1) and mediator (equation 2), and if equation 3 indicated that first,
the mediator had an effect on the criterion, and second, the effect of the predictor on criterion was either significant but less than that found for this relation in equation 1 (inferring partial mediation), or less and not significant (inferring full mediation). A Sobel test (Sobel, 1982) was conducted to determine if the effect of the predictor on the criterion decreased significantly from equation 1 to equation 3.

Results

Descriptive statistics for the sense of belonging to the gay community, self-esteem and body image variables are shown in Table 1. The mean item ratings indicated moderate levels of sense of belonging (mean of 2.83 is close to 3 = agree), low levels of satisfaction with their bodies (mean of 3.65 is half way between 4 = undecided and 3=3 slightly satisfied), and low levels of self-esteem (mean of 1.63 is half way between 1= strongly disagree and 2 = disagree) among this sample of gay men. The Pearson’s $r$ correlations between each of the variables are also presented in Table 1. Results indicate that higher levels of sense of belonging to the gay community were associated with higher levels of self-esteem and higher levels of body image dissatisfaction. Higher levels of body image dissatisfaction were associated with lower levels of self-esteem.

Results for the moderation model are shown in Table 2. At Step 1, the body image dissatisfaction and sense of belonging to the gay community variables accounted for 42% of the variance in self-esteem scores. The addition of the interaction term (body image x sense of belonging to the gay community) at Step 2 explained an additional 3 % of the variance in self-esteem. The significant change in $R^2$ from Step 1 to Step 2 provides support for the moderation model. The final model explained 45% of the variance in self-esteem, $R^2 = .47$, adjusted $R^2 = .45$, $F (3, 86) = 24.90, p < .001$. Higher levels of sense of belonging to the gay community and lower levels of body image dissatisfaction were related to higher levels of self-esteem among the sample of gay men.
Figure 1 shows the body image dissatisfaction x sense of belonging to the gay community interaction. The beta values for high, $b = -0.09$, $t(86) = -6.93$, $p < .001$, $R^2 = 0.21$, Cohen’s $f^2 = .25$ and average, $b = -0.06$, $t(86) = -11.40$, $p < .001$, $R^2 = 0.07$, Cohen’s $f^2 = .08$, sense of belonging to the gay community were significant. The beta value for low sense of belonging to the gay community was not significant, $b = -0.02$, $t(86) = -1.01$, $p > .05$, $R^2 = 0.01$, Cohen’s $f^2 = 0.01$. Overall, body image dissatisfaction was associated with self-esteem at high and average levels of sense of belonging to the gay community, but not at low levels of sense of belonging to the gay community.

The results of the analysis for testing whether body image dissatisfaction mediated the relation between sense of belonging to the gay community and self-esteem are shown in Table 3. Results indicate that sense of belonging predicted self-esteem (equation 1) and body image dissatisfaction (equation 2). The results from equation 3 indicate that body image dissatisfaction predicted self-esteem, and that sense of belonging still predicted self-esteem, although the strength of the relationship had decreased compared with Equation 1. The Sobel Test indicated that the decrease in variance explained by sense of belonging to the gay community from equation 1 to equation 3 was significant ($z = -3.09$, $p < .002$). These results indicate that body image dissatisfaction partially mediated the relation between sense of belonging to the gay community and self-esteem.

Discussion

The aim of the present study was to examine the relationships between sense of belonging to the gay community, body image dissatisfaction and self-esteem among a sample of Australian gay men, by testing a moderation model and a mediation model. The first hypothesis was supported; predicting that sense of belonging to the gay community would moderate the relationship between body image dissatisfaction and self-esteem for gay men. The second hypothesis was also supported; body image dissatisfaction partially mediated the relation between sense of belonging to the gay community and self-esteem.
Broadly speaking, the results of the current study support past findings (Beren et al., 1996; Williamson & Spence, 2001; Yelland & Tiggemann, 2003) that indicate that affiliation and integration with the gay community is detrimental for the body image satisfaction of gay men. The two models tested in this study help to further understand this relationship.

The moderation model tested whether the strength of the relationship between body image dissatisfaction and self-esteem was influenced by sense of belonging to the gay community. In contrast to the study by Tiggemann et al., (2007), the results of this study supported the moderation model, with sense of belonging to the gay community strengthening the body image dissatisfaction-self-esteem relation. Further analysis indicated that body image dissatisfaction was associated with self-esteem only at average and high levels of sense of belonging to the gay community. The relationship between body image dissatisfaction and self-esteem was not significant for gay men who reported low levels of sense of belonging to the gay community. In other words, the more gay men felt valued and accepted within the gay community, the stronger the relationship between body image dissatisfaction and low levels of self-esteem.

These findings are comparable with the findings of Levesque and Vichesky (2006), indicating that integration (indexed by involvement and perceived acceptance) into the gay community moderated the relationship between body image dissatisfaction and self-esteem among gay men. In contrast with Levesque and Vichesky is how the various levels of belonging to the gay community influenced the body image dissatisfaction-self-esteem relation. The researchers found that body dissatisfaction was related to self-esteem for gay men with low or moderate integration into the gay community, but not for those high on integration. The researchers also reasoned that as gay men become involved with and feel accepted within the gay community, they may feel less pressure to look a certain way and body image may become less central to their self-esteem. In contrast, the results of the current study found that body image dissatisfaction was related to self-esteem for gay men who reported average to high levels of sense of belonging to the gay community. This finding may indicate that the link between body image dissatisfaction and self-esteem is strengthened, not
weakened as found by Levesque and Vichesky, as gay men become more involved with the gay community. It may be that the more involved gay men become within the gay community, the more aware they become of physical appearance, and the role physical appearance plays in forming relationships (Brand, Rothblum, & Solomon, 1992; Siever, 1994). This heightened awareness of the value of physical appearance among gay men may result in more concern and dissatisfaction with their appearance and body image, and subsequently, results in poor self-esteem.

The differences in results between the current study and those reported by Tiggemann et al. (2007) and Levesque and Vichesky (2006) may be explained at least in part by the concept being investigated and the measures employed. Tiggemann et al. researched sense of involvement (although one question concerned identification with the gay community), Levesque and Vichesky used both activity frequency and perceived acceptance. Their measure of perceived acceptance appears to have some similarity with the concept and measure of sense of belonging used in the current study. To have a sense of belonging, however, is more than simply to have a feeling of acceptance; it also concerns the extent to which a gay man feels valued and important in the gay community, and whether he feels he fits in with those gay men around him. It may be that level of involvement in the gay community does not influence the body image-self-esteem relation, but deeper feelings of being valued and accepted with in the gay community, as well as feeling as though one fits in to the community, strengthen this relationship.

Results testing a mediation model indicated that body image dissatisfaction partially mediated the relation between sense of belonging to the gay community and self-esteem. Feelings of being valued and as though one fits in the gay community were associated with greater body image dissatisfaction among gay men. Body image dissatisfaction was, in turn, associated with lower levels of self-esteem. These results support a model that implies increasing gay men’s sense of belonging to the gay community may be associated with an increase in body image dissatisfaction, which may, in turn, be associated with a reduction in self-esteem. Findings such as these cannot
explain causality and further research to determine the direction of the relationships will be particularly useful in advancing the understanding of this relation. Nevertheless, it is reasonable to suggest in light of theory and past research that gay men who feel a higher sense of belonging to the gay community, are less satisfied with their physical appearance and express greater concern about themselves as a whole, portraying a negative self-evaluation and self-worth. It may be that the pressure gay men are subjected to within the gay community to achieve a certain body shape is associated with greater dissatisfaction with their body image, which consequently contributes to lower self-esteem.

The present research findings and implications need to be considered in light of several limitations. First, the current study along with previous research conducted on body image issues in gay men relies on cross-sectional data, which limits claims of causality. Longitudinal studies are clearly needed to allow examination of the possible causal link among the variables under investigation. Second, all the measures used in this study were self-report measures completed at the same time, introducing the possibility that the results may have been confounded by common method variance. Third, the non-random selection of the participants is a methodological issue of concern. Consistent with much of the previous literature, conducting research with a minority group inevitably leads to sampling issues. Moreover, while every effort was made to recruit gay men who were not present at a gay social event, the success of these methods cannot be ascertained. The recruitment of gay men at predominantly social gay events and the use of the snowball technique, may have resulted in the over-representation of socially supported gay men in the sample, who may have already had healthier perception of themselves and their bodies. As such, it is likely that isolated gay men were under represented in the sample.

The results of the present study have implications for the mental health of gay men and for the ways in which health workers help gay men. The results may indicate that there
can be negative ramifications for gay’s men’s well-being when they belong in a community that is heavily focussed on physical appearance. It appears plausible that gay men who seek out the gay community for support need to be aware of their own levels of body image satisfaction, as well as being aware that their perceptions of themselves may change in a negative way. Equally, health workers who advise gay men to seek out the gay community for support also need to be aware of the possible negative outcomes for these men.

It is important to note that whilst certain elements of the gay community are found to be detrimental to the body image satisfaction and self-esteem of gay men (e.g., bars and clubs, Morgan & Arcelus, 2009), there can be significant benefits to the mental health of gay men by belonging to the gay community (McLaren et al., 2008). Woolwine (2000) examined the extent to which gay men experience the gay community and proposed three conceptions of the gay community; the imagined community (which exists in the mind of gay men), the gay community as friendships (significance of gay men’s friendship networks in providing support and acceptance of oneself as a gay man) and the gay community as local organisations or groups (connecting with other gay men within the gay community beyond friendship networks, getting involved in specific gay organisations that lend support to gay members). Encouraging gay men to seek out same-interest groups and friendships that are not so heavily focussed on physical appearance is likely to result in a positive experience for gay men.

The current study provides a solid foundation for future research to build upon. This study examined the gay community in global terms and did not assess the differing aspects of the gay community as proposed by Woolwine (2000). The relationship between sense of belonging to the different aspects of the gay community, body image satisfaction and self-esteem is an area that requires consistent and ongoing examination.
In summary, this study provides further insight into the relationship between body image dissatisfaction and low self-esteem among a sample of gay men. Results show that as gay men’s sense of belonging to the gay community increases, the relationship between body image dissatisfaction and self-esteem strengthens. Educating gay men about the possible negative outcomes from belonging to the gay community, and encouraging them to seek aspects of community that are less focused on physical appearance may prove beneficial for the well-being of gay men. Furthermore, the focus of the present study may enable health workers who aim to improve the mental health of gay men to work more effectively with gay men who are struggling with body image concerns and low self-esteem. Future research aimed at understanding how different aspects of the gay community may influence gay men’s body image and subsequently self-perception is clearly needed.


Table 1

Descriptive Statistics and Pearson’s Correlation Coefficients between the Sense of Belonging Gay Community, Body Image and Self-Esteem Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>M</th>
<th>SD</th>
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<tr>
<td>Sense of Belonging</td>
<td>-</td>
<td>.36**</td>
<td>.59**</td>
<td>51.00</td>
<td>7.33</td>
</tr>
<tr>
<td>Body Image Dissatisfaction</td>
<td>-</td>
<td>-</td>
<td>-.48**</td>
<td>58.40</td>
<td>23.07</td>
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<tr>
<td>Self-Esteem</td>
<td>-</td>
<td></td>
<td>16.24</td>
<td>4.70</td>
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<tr>
<td>Mean item score</td>
<td>2.83</td>
<td>3.65</td>
<td>1.62</td>
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<td></td>
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</tbody>
</table>

** p < .01.
Table 2

*Results of the Analysis for Testing the Moderation Model*

<table>
<thead>
<tr>
<th></th>
<th>b</th>
<th>SE</th>
<th>β</th>
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<tbody>
<tr>
<td><strong>Step 1</strong> [(R^2 = .44), adjusted (R^2 = .42), (F(2, 87) = 33.80, p &lt; .001)]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Image</td>
<td>-0.06</td>
<td>0.02</td>
<td>-.30</td>
<td>-3.52***</td>
</tr>
<tr>
<td>Sense of Belonging</td>
<td>0.31</td>
<td>0.06</td>
<td>.49</td>
<td>5.62***</td>
</tr>
<tr>
<td><strong>Step 2</strong> [(\Delta R^2 = .03), adjusted (R^2 = .45), (F(1, 86) = 4.42, p &lt; .04)]</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Body Image</td>
<td>-0.06</td>
<td>0.02</td>
<td>-.27</td>
<td>-3.19**</td>
</tr>
<tr>
<td>Sense of Belonging</td>
<td>0.32</td>
<td>0.06</td>
<td>.50</td>
<td>5.88***</td>
</tr>
<tr>
<td>Body Image x Sense of Belonging</td>
<td>-0.01</td>
<td>0.00</td>
<td>-.17</td>
<td>2.10 *</td>
</tr>
</tbody>
</table>

\*p < .05. **p < .01. ***p < .001.
### Table 3

**Mediation Effect of Body Image Dissatisfaction on Sense of Belonging-Self-Esteem Relation**

<table>
<thead>
<tr>
<th>Equation</th>
<th>Relationship</th>
<th>b</th>
<th>SE</th>
<th>β</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Self-esteem on Sense of Belonging</td>
<td>.38</td>
<td>.06</td>
<td>.60</td>
<td>6.99*</td>
</tr>
<tr>
<td>2</td>
<td>Body Image on Sense of Belonging</td>
<td>-1.16</td>
<td>.31</td>
<td>-.37</td>
<td>-3.70*</td>
</tr>
<tr>
<td>3</td>
<td>Self-esteem on Sense of Belonging</td>
<td>.31</td>
<td>.06</td>
<td>.49</td>
<td>5.62*</td>
</tr>
<tr>
<td></td>
<td>Body Image</td>
<td>-.06</td>
<td>.02</td>
<td>-.30</td>
<td>-3.52*</td>
</tr>
</tbody>
</table>
Figure 1. Self-Esteem as a function of high, average and low body image satisfaction, and high, average and low sense of belonging to the gay community.