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A randomized controlled trial of a peer co-led dissonance-based eating disorder prevention program for gay men

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ABSTRACT

Objective: Gay males have increased risk for eating disorders compared to heterosexual males, establishing a need to develop and empirically evaluate programs to reduce risk for this population. The present study investigated the acceptability and efficacy of a cognitive dissonance-based (DB) intervention (The PRIDE Body Project©) in reducing eating disorder risk factors among gay males in a university-based setting.

Method: Eighty-seven gay males were randomized to either a 2-session DB intervention ($n = 47$) or a waitlist control condition ($n = 40$). Participants completed eating disorder risk factor assessments pre-intervention, post-intervention, and at 4-week follow-up, and those receiving the intervention completed post-treatment acceptability measures.

Results: Acceptability ratings were highly favorable. Regarding efficacy, the DB condition was associated with significantly greater decreases in body dissatisfaction, drive for muscularity, self-objectification, partner-objectification, body-ideal internalization, dietary restraint, and bulimic symptoms compared to waitlist control from pre- to post-intervention. Improvements in the DB group were maintained at 4-week follow-up, with the exception of body-ideal internalization. Body-ideal internalization mediated treatment effects on bulimic symptoms.

Conclusion: Results support the acceptability and efficacy of The PRIDE Body Project© and provide support for theoretical models of eating pathology in gay men.

1. Introduction

Eating disorders among men have been on the rise in recent decades, with males representing up to 33% of all eating disorder cases (Hudson, Hiripi, Pope, & Kessler, 2007). One subgroup of men who are at particularly high-risk is gay men, who have been shown to have higher prevalence of diagnosed eating disorders (Carlat, Camargo, & Herzog, 1997; Feldman & Meyer, 2007; Olivardia, Pope, Mangweth, & Hudson, 1995) and higher levels of eating disorder risk factors compared to heterosexual men (Brown & Keel, 2012; Brown & Keel, 2015; Carper, Negy, & Tantleff-Dunn, 2010; Laska et al., 2015; Martins, Tiggemann, & Kirkbride, 2007). Eating disorders within this group are associated with increased functional impairment, medical complications, impaired social relationships, and higher incidence of substance use disorders, anxiety, depression, personality disorders, and suicide attempts (Bramon-Bosch, Troop, & Treasure, 2000; Carlat et al., 1997; Feldman & Meyer, 2010). Despite the strong body of research demonstrating that gay men represent a high-risk group, to our knowledge, no studies have developed interventions aimed at reducing eating disorder risk in this population.

In order to develop such an intervention, models of risk must be examined to identify factors that explain why gay men are more likely to develop eating disorders. One sociocultural explanation for gay males' high-risk status stems from applications of objectification theory (Fredrickson & Roberts, 1997). Because men emphasize physical appearance when looking for a romantic partner (Silberstein, Mishkind, Striegel-Moore, Timko, & Rodin, 1989; Tiggemann, Martins, & Kirkbride, 2007), individuals who are trying to attract male partners, including heterosexual women and homosexual men, are socialized to view their physical appearance from an observer's perspective, as a sexual object. Increasing the complexity of this objectification, gay men are both the subject *and*

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the executors of objectification of other males (termed the "gay male gaze"; Wood, 2004). This internalized objectification (self-objectification) may lead gay men to engage in regular body comparison with other gay males and media images (Duggan & McCreary, 2004; Wood, 2004). These processes are theorized to lead to the internalization of a lean, muscular body ideal (Siever, 1994; Tylka & Andorka, 2012). Importantly, these media images depict an unrealistic body-ideal (Tiggemann et al., 2007; Wood, 2004) that can rarely be achieved without extreme diet, exercise, or steroid use (Cafri et al., 2005). Body-ideal internalization has been associated with increased body dissatisfaction in gay males, which, in turn, increases risk for eating disorders (Tylka & Andorka, 2012). Thus, application of objectification theory to gay men (Brown & Keel, 2015) implicates body-ideal internalization as playing a central role in their elevated risk for eating disorders (Tylka & Andorka, 2012).

The role body-ideal internalization plays in eating pathology among gay males may be similar to the role that thin-ideal internalization plays among women, as described by the dual-pathway model of bulimic symptoms (Stice, Ziemba, Margolis, & Flick, 1996; Stice, 2001). This model hypothesizes that thin-ideal internalization, pressures to be thin, and increased body mass promote increased body dissatisfaction. Theoretically, increased body dissatisfaction promotes dual pathways to increased dieting and increased negative affect, both of which subsequently lead to increased bulimic symptoms. Thus, according to the dual-pathway model, thin-ideal internalization plays a central role in promoting body dissatisfaction, dietary restraint, negative affect, and bulimic symptoms. Indeed, previous research has found that thin-ideal internalization is a potent causal risk factor for eating pathology among females (Thompson & Stice, 2001). As such, body-ideal internalization may be a potent target for reducing eating disorder risk in gay men.

Although no prevention programs have targeted body-ideal internalization among gay men, DB programs were developed from the dual-pathway model to target thin-ideal internalization for young women (Stice et al., 1996; Stice, 2001) and have become one of the more innovative and promising classes of eating disorder prevention programs (Stice & Shaw, 2004). Cognitive dissonance theory asserts that when people behave in a way that contradicts their beliefs, they will experience psychological discomfort, which will lead them to alter their beliefs to be more compatible with their actions to restore consistency (Festinger, 1957). Recent interventions have used DB principles to target high-risk groups of females by having participants actively critique and speak out against the thin ideal.

DB interventions in young women have consistently produced significant reductions in dietary restraint, body dissatisfaction, thin-ideal internalization, negative affect, psychosocial impairment, and eating pathology symptoms post-intervention (Becker, Smith, & Ciao, 2005; Becker et al., 2010; Stice, Shaw, Burton, & Wade, 2006; Stice, Marti, Spoor, Presnell, & Shaw, 2008; Stice, Rohde, Gau, & Shaw, 2009), with many effects persisting through 2–3 year follow-up (Stice, Marti, et al., 2008; Stice, Rohde, et al., 2008). Importantly, these programs have also reduced risk of eating disorder *onset* by 60% through 3-year follow-up (Stice, Marti, et al., 2008; Stice, Rohde, et al., 2008). Consistent with the dual-pathway model of bulimic symptoms, mediation analyses have demonstrated that thin-ideal internalization partially mediates treatment effects among women (Seidel, Presnell, & Rosenfield, 2009; Stice, Presnell, Gau, & Shaw, 2007; Stice, Marti, Rohde, & Shaw, 2011). Given the central role that body-ideal internalization plays in explaining why gay men are at increased risk for eating pathology, and that targeting thin-ideal internalization within DB interventions has successfully reduced a variety of eating disorder risk factors in women, DB interventions represent a promising framework for reducing risk in gay men.

An important aspect of these more recent DB interventions has been the use of peer co-leaders (Becker et al., 2005), based on principles of community participatory research (Becker, Stice, Shaw, & Woda, 2009). The addition of peer co-leaders may be particularly relevant given the importance of peer influences on eating behaviors among gay males (Tylka & Andorka, 2012). Thus, positive modeling from peer co-leaders, as opposed to non-peer leaders, may contribute to the salience and relevance of the program and enhance the credibility of the intervention. Finally, the use of peer co-leaders provides further opportunities for dissemination of interventions once efficacy has been established because of the greater availability of peers compared to trained professionals.

Thus, the aim of the present study was to determine the acceptability and efficacy of adapting a peer co-led cognitive DB intervention for use among gay college-aged males. Regarding acceptability, we hypothesized that: (1) a minimum of 75% would complete the intervention and that acceptability ratings would be favorable for all items. Regarding efficacy, we hypothesized that: (2a) men in the DB group would show significantly greater reductions in all eating disorder-related outcome measures (body dissatisfaction, drive for muscularity, body-ideal internalization, dietary restraint, bulimic symptoms, and self- and partner-objectification) over time compared to men in the waitlist control (WL) group; and (2b) differences between groups would be maintained at 4-week follow-up. Finally, consistent with the theoretical premise of DB interventions, we hypothesized that: (3) the DB program's impact on bulimic symptoms would be mediated by reductions in body-ideal internalization.

2. Methods

2.1. Sample, study design, and procedures

Participants ($N = 87$) were recruited through advertisements around the campus of a large, public southern university and local community for participation in a positive body image program for gay men, through introductory psychology classes at the university, and through an e-mail distributed to men enrolled at the university. Given that gay males are at increased risk for eating pathology, our design represented a selected prevention in which participants met the following inclusion criteria: (a) male, (b) 18–30 years old, (c) were more attracted to men than women, (d) did not meet criteria for a DSM-5 eating disorder, and (e) agreed to participate in the body image program. All study procedures were approved by the Florida State University Institutional Review Board (IRB). The majority of participants were currently in school pursuing an undergraduate (72.5%) or graduate degree (19.2%).

2.1.1. Eligibility phone screen

Interested participants completed an eligibility phone screen. The phone screen obtained information regarding sexual identity, sexual behaviors, and sexual attractions over the past year, and included the eating disorders module of the Structured Clinical Interview for Axis-I Disorders (SCID-I; First, Spitzer, Gibbon, & Williams, 1995). Criteria from the SCID-I eating disorders module were amended to be consistent with DSM-5. Phone screens confirmed that participants met the sexual orientation criteria and did not have a current DSM-5 eating disorder (anorexia nervosa, bulimia nervosa, or binge eating disorder); however, participants could have eating disorder symptoms, consistent with methods used in prior selective prevention trials (Becker, Bull, Schaumberg, Cauble, & Franco, 2008). Eligible and interested participants were