Internet-based preventative intervention for reducing eating disorder risk: A randomized controlled trial comparing guided with unguided self-help

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A B S T R A C T
Student Bodies, an internet-based intervention, has successfully reduced weight/shape concerns and prevented eating disorders in a subset of college-age women at highest risk for an eating disorder. Student Bodies includes an online, guided discussion group; however, the clinical utility of this component is unclear. This study investigated whether the guided discussion group improves program efficacy in reducing weight/shape concerns in women at high risk for an eating disorder. Exploratory analyses examined whether baseline variables predicted who benefitted most. Women with high weight/shape concerns (N = 151) were randomized to Student Bodies with a guided discussion group (n = 74) or no discussion group (n = 77). Regression analyses showed weight/shape concerns were reduced significantly more among guided discussion group than no discussion group participants (p = 0.002; d = 0.52); guided discussion group participants had 67% lower odds of having high-risk weight/shape concerns post-intervention (p = 0.02). There were no differences in binge eating at post-intervention between the two groups, and no moderators emerged as significant. Results suggest the guided discussion group improves the efficacy of Student Bodies in reducing weight/shape concerns in college students at high risk for an eating disorder.

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Evidence-based interventions for eating disorders have been established, but they are not being implemented in routine clinical care, resulting in a devastating gap between those who are and are not receiving treatment (Beidas & Kendall, 2010; Drake et al., 2001; Proctor et al., 2009; Shafran et al., 2009). Translating interventions into disseminable mediums that are readily deliverable, rely less on specialists, and can be tailored for varied levels of risk and symptom profiles is a priority. Internet-based interventions overcome translational barriers and enable rapid dissemination (Kazdin & Blase, 2011; Paxton, 2013). Online interventions have been successfully used to reduce eating disorder risk factors or for the treatment or prevention of eating disorders (Bauer & Moessner, 2013; Bauer, Moessner, Wolf, Haug, & Kordy, 2009; Carrard et al., 2011, 2010; Jacobi, Volker, Trockel, & Taylor, 2012; Lindenberg, Moessner, Harney, McLaughlin, & Bauer, 2011; Ljotsson et al., 2007; Paxton, McLean, Gollings, Faulkner, & Wertheim, 2007; Pretorius et al., 2009; Sánchez-Ortiz et al., 2010; Stice, Rohde, Durant, & Shaw, 2012; Taylor et al., 2006). These interventions have been tested in comparison to face-to-face treatments as well as educational materials or wait-list control conditions, and have demonstrated reductions in eating risk factors, eating disorder onset, eating disorder symptoms, or relapse (Bauer & Moessner, 2013).
Internet-based interventions are often associated with high user acceptability given their accessible and anonymous format (Abascal, Bruning Brown, Winzelberg, Dev, & Taylor, 2004; Lenhart, Purcell, Smith, & Zickuhr, 2010; Luce et al., 2005; Moesnner & Bauer, 2012; Shaw, Stice, & Becker, 2009); however, anonymous online platforms can also be met with user dropout given the reduced accountability than face-to-face treatments or met with reduced engagement if technological innovations/enhancements are not released at the same speed as that of our rapidly-changing technological landscape (Paxton, 2013). Moreover, overcoming access-to-care barriers through the use of internet-based platforms requires strong, collaborative partnerships and ongoing attention to uptake and sustainability to ensure successful implementation (Paxton, 2013).

Student Bodies is an internet-based preventive intervention that aims to reduce eating disorder risk factors in order to prevent eating disorders in college-age women at risk for onset (Beintner, Jacobi, & Taylor, 2012; Taylor et al., 2006). The largest evaluation of Student Bodies demonstrated significant differences between intervention conditions in reducing the eating disorder risk factor weight/shape concerns, and although no main effects were shown for reducing eating disorder onset, differential effects were found for eating disorder prevention among two subsets of users. Specifically, the subset of users in the intervention condition who were overweight had significantly fewer eating disorder cases at two-year follow-up than the control condition (i.e., 0% onset versus 10.8% onset), and at one site, those engaging in compensatory behaviors at baseline in the intervention condition had significantly fewer eating disorder cases at two-year follow-up than the control condition (i.e., 14.4% versus 30%, respectively; Taylor et al., 2006). Though no trial evaluating Student Bodies has demonstrated main effects for eating disorder prevention, the success of the intervention across multiple trials in reducing eating disorder risk factors makes it ripe for implementation across college campuses for students at high eating disorder risk (Beintner et al., 2012). Scaling the intervention for widespread use may depend on maximizing cost effectiveness. The two highest costs associated with the intervention are running the program on a HIPAA-protected server and delivering the program using a guided self-help format through the use of a guided discussion group. Though the former is imperative for participant privacy, the clinical utility of the latter has yet to be determined.

The current study sought to examine whether an online, guided discussion group component of Student Bodies by comparing the efficacy of delivering the intervention using a guided versus unguided self-help format. Guided self-help interventions are an effective first-line treatment intervention for eating disorders and improve scalability (Wilson & Zandberg, 2012), though data are limited regarding the benefits of guided compared to unguided self-help preventive interventions for eating disorders; to our knowledge, only one pilot trial has been conducted using an internet-based preventive intervention (Low et al., 2006), suggesting the need for large-scale randomized controlled trials (RCTs) to evaluate the effects. Among internet-based treatment programs for eating disorders, guided self-help programs have been associated with higher participation and abstinence from binge eating than unguided self-help interventions (Beintner, Jacobi, & Schmidt, 2014). In other mental health conditions such as depression and anxiety disorders, trials of internet-based interventions have demonstrated the efficacy or potential benefit of unguided self-help interventions (Berger, Caspar, et al., 2011; Berger, Hammerli, Gubser, Andersson, & Caspar, 2011; Lintvedt et al., 2011). However, meta-analyses suggest that internet-based interventions for depression and anxiety without therapist support have smaller effect sizes than interventions with therapist support (Andersson & Cuijpers, 2009; Spek et al., 2007).

The primary aim of this RCT was to investigate whether a guided discussion group improved program efficacy in reducing weight and shape concerns associated with participation in the 8-week Student Bodies intervention. We focused on weight and shape concerns because this construct has been identified as a key risk factor for the onset of eating disorders (Jacobi, Abascal, & Taylor, 2004; Jacobi, Hayward, de Zwaan, Kraemer, & Agras, 2004). We also conducted exploratory analyses to examine whether possible moderator baseline variables predicted who benefitted most from the program, as this information may be useful for circumstances in which intervention delivery is dependent on limited cost resources. Past trials evaluating preventive interventions have demonstrated moderating effects of overweight status (Taylor et al., 2006), elevated eating disorder symptoms (Mulder & Stice, 2013; Stice et al., 2012; Stice, Rohde, Shaw, & Marti, 2013), presence of a DSM-5 diagnosis (Mulder & Stice, 2013), and pressure to be thin (although results are mixed on the effects of elevated or lower pressure to be thin changes in eating disorder symptoms; Stice et al., 2012; Stice, Rohde, et al., 2013) on reductions in eating disorder symptoms or prevention of eating disorder onset, as well as being an older adolescent/young adult on reductions in body dissatisfaction (Mulder & Stice, 2013). We evaluated the possible moderating effect of depression, body mass index (BMI, kg/m²), willingness to improve body image, and willingness to improve emotion regulation. The decision to examine these variables was based on the moderating effect of BMI from a previous trial of Student Bodies (Taylor et al., 2006) and the association between depression and increased risk for eating disorder onset (Jacobi et al., 2011). Additionally, since higher levels of willingness and motivation to change in treatment can improve adherence and predict better outcomes in in-person (Burns, Westra, Trockel, & Fisher, 2012) and internet-based interventions (Donkin & Glozier, 2012), we included measures of these variables in the assessment and examined them in relation to intervention effects. We hypothesized that participants who received the Student Bodies program with the guided discussion group component (i.e., guided self-help format) would have a greater reduction in weight and shape concerns than would participants who received the program without a discussion group (i.e., unguided self-help format).

Methods

Participants

Participants were college-age women between the ages of 18 and 25, who were considered at high risk for eating disorder onset. High risk was defined as a score at or above 47 on the Weight Concerns Scale (WCS; Jacobi, Abascal, et al., 2004) or endorsement of the statement(s), “My weight is more important than most, but not all, things in my life,” “My weight is the most important thing in my life,” “I am very afraid of gaining three pounds,” or “I am terrified of gaining three pounds” on the WCS, irrespective of total score (Jacobi, Abascal, et al., 2004). The study was conducted in the San Francisco, Sacramento, and St. Louis areas. Participants were eligible for inclusion if they did not meet diagnostic criteria for a current clinical or subclinical eating disorder, as defined in the

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1 A pilot study of Student Bodies using a community sample of college-age women (i.e., at low risk for eating disorder onset) found similar effects between a guided discussion group (n = 14), an unguided discussion group (n = 19), or no discussion group (n = 14) compared to a no-program control group (n = 14) (Low et al., 2006). However, a large RCT of a guided discussion group versus no discussion group among the Student Bodies program’s target high-risk population has yet to be conducted.
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