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**Inducing Self-Compassion to Mitigate Internalized Weight Stigma in Sexual and Gender
Minority Adolescents: An Intervention Proposal**

Abstract

Higher-weight individuals commonly experience weight-based stigma and discrimination, which contribute to disparate physical and psychological health outcomes via weight bias internalization. The most common form of prejudice-based harassment among youth, weight-based victimization poses a significant threat to healthy psychosocial development. Sexual and gender minority youth may be particularly vulnerable to the harmful effects of weight stigma, given they report disproportionately high rates of weight-based victimization and face adversity at the intersections of multiple oppressed identities. Self-compassion promotes resilience to psychosocial stress, and offers promise as a tool for disrupting the links between weight stigma and worse health by reducing stigma internalization. This paper proposes a novel 8-week self-compassion intervention to reduce internalized weight stigma and body shame in higher-weight, sexual and gender minority youth. Drawing from established compassion interventions applied at a developmentally-appropriate level, the proposed program will target internalized weight stigma by teaching self-soothing strategies and adaptive psychological processing to empowering participants to work through experiences of weight-related shame and self-criticism. Community-centered, group-based delivery will foster identity affirmation and community resiliency to minority stress. Pre/post-intervention measures of internalized weight stigma and body shame will be administered at baseline and at the end of the intervention (8 weeks) to examine efficacy. This intervention is the first empirical attempt to apply self-compassion to alleviate internalized weight stigma in sexual and gender minority youth. If effective, self-compassion could be applied broadly to enhance resiliency and adaptive coping in all groups marginalized by weight stigma.

Introduction to Problem

Stigma is a pervasive driver of inequity, and is recognized as a fundamental cause of health disparities in groups that are marginalized and oppressed (Hatzenbuehler et al., 2013). Higher-weight individuals are one such group who routinely face stigma and discrimination in their everyday lives (Puhl & Heuer, 2009). Weight-based victimization (i.e., bullying or teasing based on body weight) starts early in childhood; weight bias and anti-fat attitudes have been observed in children as young as four years old (Harrison et al., 2016; Puhl & Lessard, 2020). This stigma persists through adolescence to form a lifelong experience for higher-weight individuals across all sociodemographic groups (Puhl & Lessard, 2020). Weight stigma is related to numerous negative health outcomes including hypertension, dysfunctional eating, poor body image, low self-esteem, depression, low physical activity, and weight gain (Puhl & Suh, 2015; Tylka et al., 2014). Weight stigma predicts increased mortality risk independent of BMI (Sutin et al., 2015), and as such, has been identified as an underlying cause of health disorders that are commonly attributed to excess adiposity (Rubino et al., 2020; Wu & Berry, 2017).

The Weight-Based Social Identity Threat Model illustrates a mechanistic pathway by which weight stigma causes adverse health outcomes in individuals who embody a higher-weight identity (Hunger et al., 2015). Experiences of discrimination elicit a psychobiological stress response, chronic activation of which causes physiological damage and compromises psychological health (Hunger et al., 2015). A central mechanism by which weight stigma enacts its devastating consequences is weight bias internalization (Pearl & Puhl, 2018), the process by which derogatory cultural depictions of higher-weight individuals are internalized and directed towards the self to create the psychosomatic experience of having a stigmatized body (Williams & Annandale, 2019). Indeed, it may be the perception of weight that matters more than objective

BMI; identifying oneself as ‘overweight’ longitudinally predicts biomarkers of worse health across the weight spectrum (Daly et al., 2017). Shame is an affective state closely related to stigma internalization (Skinta et al., 2015), and is hypothesized to be another key mediator of the health effects of weight stigma due to its potent ability to trigger cortisol in response to social threats (Tomiyama, 2014). Given the prevalence of stigma towards higher-weight individuals (Puhl & Heuer, 2009), there is a critical need for resources to build resiliency in this marginalized population. Absent much-needed paradigm shifts in the way society views higher-weight bodies, internalized weight stigma and body shame are promising targets for intervention.

Population

The present intervention will target sexual and gender minority adolescents who identify as higher-weight. Weight/appearance-based harassment is the most common form of prejudice-based victimization in youth (Bucchianeri et al., 2016). Higher-weight youth are the most vulnerable to weight-based victimization, with 39.8% of obese boys and 49.8% of obese girls reporting weight/appearance-based harassment (Bucchianeri et al., 2016). Higher-weight youth are routinely stigmatized by their peers, teachers, parents and family (Puhl & Lessard, 2020). A review reports that weight-based victimization puts adolescents at risk for a host of negative health outcomes, including depressive symptoms, low self-esteem, suicidal ideation, social and interpersonal difficulties, poor academic performance, weight gain, disordered eating behaviours, physical activity disengagement, and substance use (Puhl & Lessard, 2020). Adolescence is a critical developmental period during which neurophysiological systems that regulate affect and self-identity undergo rapid maturation (Gilbert & Irons, 2009). As such, formative experiences during adolescence can have long-lasting health consequences, making the experience of weight stigma especially damaging to youth (Puhl & Lessard, 2020).

Weight stigma often intersects with other forms of societal marginalization, and individuals who identify with multiple devalued social categories can experience cumulative disadvantages that are unique to the interactions of these identities (Himmelstein et al., 2017). Individuals with sexual and gender minority identities suffer health disparities due to structural and social discrimination (Williams & Mann, 2017), and thus, sexual and gender minority youth are disproportionately vulnerable to weight stigma. LGBQ youth experience higher rates of all types of harassment compared to their peers, including weight and appearance-based victimization (Bucchianeri et al., 2016). The stressors associated with both sexual/gender minority stigma and weight stigma compound, making these multiply-marginalized individuals uniquely vulnerable to the risks of minority stress (Panza et al., 2020). Thus, Puhl et al. (2020) identify the urgent need for strategies to support adaptive coping and reduce weight stigma-related distress in minority communities (such as sexual and gender minorities) who face adversity at the intersections of body inequity with other oppressed identities.

Clearly, weight stigma has devastating consequences for higher-weight sexual and gender minority youth. Interventions aimed at targeting the psychological mediators of weight stigma (such as internalization and shame) may effectively disrupt the relationship between weight stigma and worse health. Resiliency factors can buffer the effects of minority stress; for example, social supports can foster community resilience, connectedness, and identity affirmation (Meyer, 2015). At the individual level, psychosocial factors such as self-compassion have been shown to protect against minority stress by facilitating adaptive coping in sexual and gender minority youth (Vigna et al., 2018). Unfortunately, little research has focused on developing interventions to protect against weight stigma in multiply-marginalized groups. The present study will test a

novel approach to reducing weight stigma internalization and body shame via a self-compassion intervention for higher-weight, sexual and gender minority adolescents.

Outcomes

The primary outcome targeted by this intervention is internalized weight stigma. Weight stigma internalization is robustly associated with adverse mental health outcomes, and growing evidence suggests it also causes worse physical health (Pearl & Puhl, 2018). Although understudied in youth, preliminary findings indicate that the harmful effects of weight stigma internalization are present in adolescence (Pearl & Puhl, 2018). Because embodiment of the socially devalued identity (i.e., higher-weight) is theorized to be a central mediator of the harmful effects of weight stigma (Hunger et al., 2015), weight stigma internalization is a promising target for disrupting these adverse links.

Body shame will be targeted as a secondary outcome. Body shame is a self-conscious emotional response to perceived failure of the body to meet societal ideals (Frederickson & Roberts, 1997), and trait levels of body shame have been shown to predict mental and physical health outcomes like depression, disordered eating and infections (Lamont, 2015). Due to heightened sensitivity to social comparisons, adolescence is a vulnerable period for negative self-evaluative responses such as shame and self-criticism (Gilbert & Irons, 2009). Weight stigma is a potent elicitor of shame (Brewis & Bruening., 2018), and in turn shame plays a key role in the psychophysiological response to stigma (Tomiyama, 2014). Thus, body shame may be a key mediator of both the psychological and physiological effects of weight stigma (Tomiyama, 2014), making it another promising target for intervention.

Pre/post-intervention measures of internalized weight stigma and body shame will be administered at baseline and at the end of the intervention (8 weeks) to examine efficacy. Self-

compassion will also be evaluated at baseline and 8 weeks as a manipulation check, to ensure the intervention was successful at increasing trait-level self-compassion. Analysis will examine within-participants change in internalized weight stigma, body shame and self-compassion over time. Because this is a preliminary investigation testing a novel intervention, no control group will be used. Success will be defined as meaningful within-participant reductions pre/post intervention in weight stigma internalization and body shame.

Weight stigma internalization will be quantified using the Weight Bias Internalization Scale (Durso & Latner, 2008), which measures the degree to which stigmatizing stereotypes of higher-weight individuals are endorsed and directed towards the self. This scale been successfully applied to adolescent populations (Puhl & Himmelstein, 2018; Roberto et al., 2012). Body shame will be measured with the body shame subscale of the Objectified Body Consciousness Scale-Youth (Lindberg et al., 2006), to quantify the shame experienced when the body is perceived to fall short of cultural body standards. Total mean self-compassion will be quantified using the 26-item Self-Compassion Scale (Neff, 2003b), which is reliable for use in adolescent populations (Neff & McGehee, 2010).

Intervention

The present intervention aims to reduce internalized weight stigma and body shame via an 8-week group program teaching self-compassion. Self-compassion is a psychological process that can facilitate adaptive coping and resilience by disrupting the psychobiological response to distress, and offers promise as a tool for reducing stigma internalization (Vigna et al., 2018) and shame (Gilbert, 2010). As described by Neff (2003a), self-compassion is comprised of three components: self-kindness (as opposed to self-criticism), non-judgemental mindful awareness (as opposed to over-identification with negative experiences), and common humanity (as opposed to

self-isolation). Essentially, self-compassion is the extension of a kind and understanding attitude towards oneself during times of pain or perceived failure (Neff, 2003a).

Cross-sectional research in sexual and gender minority youth has found that higher levels of trait self-compassion protect against minority stress by buffering the relationship between minority status and mental health symptoms, which implicates this construct as a promising target for interventions seeking to reduce minority health disparities (Vigna et al., 2018). Moreover, self-compassion is directly opposed to stigma-related states like shame and self-criticism, and has been described as an antidote to social threat (Gilbert & Procter, 2006). Meta-analyses have found that self-compassion is positively associated with a wide range of physical health indicators (Phillips & Hine, 2021), and that self-compassion confers resilience to psychopathology (MacBeth & Gumley, 2012). The health benefits of self-compassion may be partly mediated by its ability to dampen harmful psychobiological responses to stress (Arch et al., 2014; Breines et al., 2014, 2015; Svendsen et al., 2016), the same mechanisms hypothesized to contribute to health disparities in stigmatized social groups (Lick et al., 2013). In support of these hypotheses, self-compassion has been shown to buffer the adverse mental and physical health effects of self-stigma in higher-weight individuals (Hilbert et al., 2015).

Self-compassion can be effectively targeted to reduce internalized weight stigma. A 3.5-month group-based mindfulness and acceptance intervention incorporating self-compassion significantly reduced weight self-stigma and self-criticism in higher-weight women (Palmeira et al., 2017). A two-day intensive compassion-focused therapy intervention likewise decreased internalized weight stigma, psychological distress and body dissatisfaction in higher-weight women, with self-compassion and weight stigma improvements maintained at three-month follow-up (Forbes et al., 2020). Self-compassion has also shown efficacy in combating shame.

Compassion-focused therapy is empirically well-supported in its ability to mitigate shame and self-criticism by fostering compassion for the self and others (Gilbert, 2010). Preliminary findings suggest that these benefits extend to body shame as well (Carter et al., 2020). Self-compassion interventions have been successfully applied to adolescent populations to enhance positive body image, mental health, well-being and resilience (Bluth & Eisenlohr-Moul, 2017; Galla, 2016; Rodgers et al., 2018). Despite this promising evidence, the weight stigma-reducing effects of a self-compassion intervention have yet to be empirically tested in youth.

Per a meta-analysis by Alleva et al. (2015), interventions targeting improvements in body image are most effective when they are conducted in a group format, with a facilitator present, and over multiple sessions. As such, the present intervention will consist of weekly 1.5-hour group sessions repeated for 8 weeks, a similar duration to those used in prior effective self-compassion interventions for adolescents (Bluth & Eisenlohr-Moul, 2017; Rodgers et al., 2018). The sessions will be led by a clinical psychologist, supported by graduate students, and will be conducted in an accessible community location (e.g., community center) to ensure equitable access. Because the sample is a multiply-marginalized population, the group format is crucial to building community resiliency. The intervention offers an opportunity for self-identified higher-weight, sexual and gender minority adolescents to connect with others who share those identities and face similar adversities. Thus, this intervention will promote resiliency to minority stresses (such as weight and sexual/gender minority stigma) not only by developing compassionate strategies for overcoming adversity but also by building a social support network upon which participants can experience belonging, community pride, and identity affirmation (Meyer, 2015).

The intervention will draw from approaches used in Mindful Self-Compassion training (Germer & Neff, 2019) and Compassion-Focused Therapy (Gilbert, 2010), applied at a

developmentally-appropriate level for adolescents. The techniques used will be specifically tailored to target weight stigma, by instilling compassionate and self-affiliative processes to work through experiences of weight-related shame and self-criticism (Gilbert, 2014). Mindfulness is a core component of self-compassion (Neff, 2003a), so each session will open with 15 minutes of meditation practice (Germer & Neff, 2019) to promote awareness of the present moment whereby bodily and emotional experiences are noticed and accepted without judgment (following Palmeira et al., 2017). Meditations will be adapted from the three core mediations of Germer & Neff's Mindful Self-Compassion Program (2019): affectionate breathing, loving-kindness for ourselves, and giving and receiving compassion. These meditations will also include somatosensory-focused themes to tap into the body-salient themes of weight stigma and adolescent development, incorporating breath awareness, body scans and physical sensation awareness (following Palmeira et al., 2017; Rodgers et al., 2018) and loving-kindness for the difficult changes during adolescence (Bluth & Eisenlohr-Moul, 2017).

Meditation will be followed by 30 minutes of shared experience (following Palmeira et al., 2017), a facilitated open discussion during which participants can connect with one another by sharing their experiences with stigma, identity, and self-compassion. This exercise is intended to build group cohesion through the establishment of an open, safe environment. It will promote connectedness and belonging to protect against minority stress (Meyer, 2015), and will tap into the Common Humanity element of self-compassion (Neff, 2003a), by reinforcing the shared human experiences of personal adversity and perceived imperfections.

The remaining 45 minutes of each session will focus on interactive delivery of self-compassion education and exercises within a structured curriculum (Germer & Neff, 2019). Session themes will be drawn heavily from Mindful Self-Compassion (Germer & Neff, 2019)

and Compassion-Focused Therapy (Gilbert, 2010). As is customary in mindful self-compassion programs, self-compassion will be taught through a mixed-methods experiential approach (Germer & Neff, 2019). Psychoeducation will cover conceptual introductions to self-compassion, shame, stigma, and affect regulation. Emphasis will be placed on framing internalized stigma (and associated states such as shame and self-criticism) as automatic safety strategies that evolved due to the necessity of positive social evaluations to human survival, and not weaknesses or character failures (Gilbert & Procter, 2006). Compassion-inducing activities (i.e., imagining a compassionate friend, identifying self-critical thoughts and reframing them with a compassionate voice, writing compassionate letters to self, supportive self-soothing) will teach participants to work through difficult emotions by activating self-soothing systems and to develop feelings of warmth and kindness towards themselves (Gilbert & Procter, 2006). Mindfulness exercises will promote non-judgmental awareness in everyday life, supporting participants' abilities to identify maladaptive thoughts and while recognizing opportunities for self-compassion and self-care (Palmeira et al., 2017). Core-values exercises such as guided discussions, written reflection and expressive art will give participants the opportunities to define and express their values and identities (Bluth & Eisenlohr-Moul, 2017). These exercises will promote identity affirmation, motivation to lead a healthy and positive life, and a focus on non-body personal qualities. Each session will end with a moment of self-appreciation (Bluth & Eisenlohr-Moul, 2017), and participants will be provided a weekly audio meditation and/or journaling exercise to enhance their compassionate practice at home (Palmeira et al., 2017).

Significance

This intervention is the first empirical attempt to apply self-compassion to alleviate the harmful effects of weight stigma in sexual and gender minority youth. Weight-based

discrimination is a major public health concern across North American society (Puhl & Heuer, 2009), but can have particularly devastating effects in populations that already face adversity due to marginalized identities (Puhl et al., 2020). Sexual and gender minority youth report high rates of weight-based victimization (Puhl et al., 2019), and the interaction of sexual and gender identity with weight status can leave this group highly vulnerable to the negative health outcomes of experiencing stigma (Himmelstein et al., 2019). Yet, adolescence is a period of increased vulnerability to psychopathology, whereby developmental processes relating to identity formation and affect regulation can have drastic impacts on distal health and behavioural outcomes (Gilbert & Irons, 2009; Perry, 2000). Accordingly, promoting adaptive psychological processing could set a positive developmental trajectory, making adolescence a prime time for intervention.

Self-compassion may be able to buffer the harmful effects of weight stigma by attenuating stigma internalization and thus preventing the resulting affective states such as shame and self-criticism. Drawing from successful interventions in both clinical and healthy samples, this intervention aims to empower participants to adopt a kind and understanding attitude towards themselves by providing evidence-based psychological education, inductions and exercises in a supportive, identity-affirming group context. By disrupting the psychobiological stress mechanisms by which weight stigma drives adverse health outcomes, self-compassion could help reduce health inequities in higher-weight individuals who face adversity at the intersections of multiple marginalized identities. If shown to be effective, self-compassion could be applied broadly to enhance resiliency and adaptive coping in all groups harmed by the pernicious effects of weight stigma.

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