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Exploring the efficacy of an acceptance, mindfulness & compassionate-based group intervention for women struggling with their weight (Kg-Free): A randomized controlled trial

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ABSTRACT

This randomized-controlled trial aims to test the efficacy of a group intervention (Kg-Free) for women with overweight or obesity based on mindfulness, ACT and compassion approaches. The intervention aimed to reduce weight self-stigma and unhealthy eating patterns and increase quality-of-life (QoL). Seventy-three women, aged between 18 and 55 years old, with BMI ≥25 without binge-eating seeking weight loss treatment were randomly assigned to intervention or control groups. Kg-Free comprises 10 weekly group sessions plus 2 booster fortnightly sessions, of 2h30 h each. The control group maintained Treatment as Usual (TAU). Data was collected at baseline and at the end of the Kg-Free intervention. Overall, participants enrolled in Kg-Free found the intervention to be very important and helpful when dealing with their weight-related unwanted internal experiences. Moreover, when compared with TAU, the Kg-Free group revealed a significant increased health-related QoL and physical exercise and a reduction of weight self-stigma, unhealthy eating behaviors, BMI, self-criticism, weight-related experiential avoidance and psychopathological symptoms at post-treatment. Results for self-compassion showed a trend towards significance, whereas no significant between-groups differences were found for mindfulness. Taken together, evidence was found for Kg-Free efficacy in reducing weight-related negative experiences and promoting healthy behaviors, psychological functioning, and QoL.

1. Introduction

One of the most serious worldwide health problems is obesity, especially as it is associated with several health problems (e.g., diabetes, hypertension, high cholesterol, heart and liver disease, sleep apnea, osteoarthritis, depression and anxiety disorders) and diminished quality-of-life (e.g., Franz et al., 2007). Obesity treatments typically include dietary restriction and physical activity prescriptions, usually producing significant short-term weight losses (e.g., Lasikiewicz, Myrissa, Hoyland, & Lawton, 2014). However, the majority of the individuals regain their initial weight within 5-years (Wilson & Brownell, 2002). A growing body of empirical data suggests that not only diet-focused interventions may be ineffective and counterproductive, but may also pose significant unwanted harmful effects such as increased body dissatisfaction, disordered eating behaviors (e.g., chronic dieting, overeating), shame and self-criticism, and have a damaging impact on individuals' health and well-being (e.g., Bacon et al., 2002; Tylka et al., 2014).

Literature has been emphasizing the role of shame and self-criticism as important transdiagnostic processes involved in several psychological and health-related medical conditions, including eating psychopathology and obesity (Gilbert et al., 2014; Kelly & Carter, 2013). Additionally, the impact of weight stigma may reach almost every life domain of people with overweight and obesity. Weight stigma may be internalized reflecting personal experiences of shame, negative self-evaluations as well as perceived discrimination, that have been related to medical noncompliance, avoiding seeking medical care and has been considered a major predictor of poorer outcomes (Latner, Durso, & Mond, 2013; Lillis, Luoma, Levin, & Hayes, 2010; Palmeira, Pinto-Gouveia, & Cunha, 2016). Thus, it seems that focusing only on

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weight loss is not sufficient to promote health and well-being of those living with a chronic illness such as obesity. Therefore, targeting the psychological processes that are linked to weight gain is crucial to help people to develop a healthier and more accepting relationship with their eating, weight, and weight-related experiences in order to increase quality-of-life (Hilbert, Braehler, Haeuser, & Zenger, 2013; Tapper et al., 2009; Tylka et al., 2014). Research has shown that health-focused interventions promote healthy eating behaviors and physical activity, improve health, (including the reduction of well-known risk factors such as elevated blood pressure, cholesterol and glucose), even without significant weight changes (e.g., Blaine, Rodman, & Newman, 2007; Tylka et al., 2014).

In fact, several psychological factors associated with weight regain (e.g., avoidance-based motivations, emotional eating, impulsivity and rigid control of eating) might reflect weight-related experiential avoidance patterns, which in turn have been related to poorer outcomes and diminished quality-of-life (Lillis, Hayes, Bunting, & Masuda, 2009; Palmeira, Pinto-Gouveia et al., 2016). Weight-related experiential avoidance relates to being unwilling to stay in contact with difficult, weight and eating-related internal experiences (such as craving for food, fatigue, weight self-stigma) and attempts to avoid, control or change them (Lillis et al., 2009). Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 2012) specifically aims to reduce experiential avoidance patterns by increasing willingness and acceptance towards one's unwanted internal experiences. ACT fosters cognitive defusion (i.e., the ability to recognize thoughts as simply products of the mind and not necessarily the truth) and distress tolerance skills in order to promote committed actions driven by one's core life values.

Furthermore, the development of mindfulness skills is key for all ACT processes (Hayes et al., 2012). Mindfulness involves present moment experiences awareness with an open, accepting and non-judgmental attitude. Particularly regarding food and eating, the practice of mindfulness enhances awareness and clarity of emotional and sensory cues (e.g. hunger and satiety) and the ability to make healthier choices (Kristeller & Wolever, 2011). It may also help to create a more positive and accepting relationship with food, which in turn could lead to weight changes (O'Reilly, Cook, Spruijt-Metz, & Black, 2014).

Efficacy studies showed that ACT interventions can be effective to reduce weight self-stigma, disinhibit and emotional eating, psychological distress, weight loss and increase physical activity and health-related QoL (Forman et al., 2013; Lillis et al., 2009; Niemeier, Leahey, Reed, Brown, & Wing, 2012; Tapper et al., 2009). In addition, a recent literature review (O'Reilly et al., 2014) concluded that mindfulness-based interventions can be effective in reducing binge eating, emotional and external eating, food cravings, body image concerns and showed promising results for weight management.

Concomitantly, there is an increasing interest in developing self-compassion to promote wellbeing and decrease shame and self-criticism patterns (e.g., Gilbert, 2010). Self-compassion involves cultivating a kind, accepting and reassuring relationship with oneself, especially during challenging times (Gilbert, 2010; Neff & Dahm, 2015). It includes the sensitivity to one's suffering and a desire to prevent or alleviate it (Goetz, Keltner, & Simon-Thomas, 2010). Mindfulness is one of the key components of self-compassion, as one needs to be aware, open and able not to become overidentified with one's own suffering in order to be self-compassionate (Neff & Dahm, 2015). However, the concept of self-compassion goes beyond mindfulness as it involves an attitude of support and kindness towards oneself, instead of being critical and disparaging, as well as the recognition that suffering is an inherent part of the human condition. Individuals may need to learn mindfulness skills before practicing loving-kindness or other compassion exercises, given that mindfulness is required for compassion and that both skills mutually enhance one another (Hofmann, Grossman, & Hinton, 2011; Kabat-Zinn, 1990; Neff & Dahm, 2015).

Research shows that self-compassion is associated with decreased body dissatisfaction and increased global mental health (Albertson, Neff, & Dill-Shackleford, 2015) and may buffer the relationship between weight self-stigma and health of individuals with overweight and obesity (Hilbert et al., 2015). Nevertheless, results from a qualitative study (Gilbert et al., 2014) suggest that people struggling with their weight find it hard (if not impossible) to be self-compassionate when dealing with relapses. In fact, when facing setbacks, many dieters tend to see themselves as failures, feeling shame and becoming self-critical rather than self-reassuring, which hinders the maintenance of healthy lifestyles and eating habits (Adams & Leary, 2007; Gilbert et al., 2014). Thus, developing self-compassion skills with people struggling with their weight and eating seems particularly relevant (Gilbert et al., 2014). Additionally, self-compassion has been linked to perceived self-efficacy and intrinsic motivation (e.g., Neff, Rude, & Kirkpatrick, 2007), less fear of failure and a higher tendency to try again when facing failures (Neely, Schallert, Mohammed, Roberts, & Chen, 2009).

It seems that all the above-mentioned skills (acceptance, cognitive defusion, distress tolerance, values and committed actions, mindfulness and self-compassion) may be key to maintain healthy behaviors in the current obesogenic environment where food is abundant and easily accessible and where sedentary lifestyles are common (Forman, Butryn, Manasse, & Bradley, 2015; Lillis et al., 2015).

ACT, mindfulness, and compassion-based interventions share a common ground, as they focus on promoting a more aware, kind, accepting and non-judgmental relationship with a person's experiences and oneself (Neff & Dahm, 2015; Neff & Tirch, 2013). ACT and self-compassion both emphasize that mindfulness is crucial to develop cognitive defusion, acceptance and self-compassion abilities (Hayes et al., 2012; Neff & Tirch, 2013). Moreover, compassion training (e.g., loving-kindness, Compassion Focused Therapy - CFT) may be combined with several cognitive-behavioral therapeutic techniques (Gilbert, 2010; Hofmann et al., 2011). Furthermore, some authors (Luoma & Platt, 2015; Neff & Tirch, 2013) argue that most ACT protocols may benefit from explicitly targeting self-compassion, as it improves the ability to stick to health-related behaviors and decreases weight-stigma, shame, and self-criticism.

Although growing interest in integrating self-compassion in ACT and mindfulness-based interventions exists (Neff & Dahm, 2015; Neff & Tirch, 2013), research on how these different yet related approaches might be integrated into comprehensive interventions is still scant. So far, only one pilot study found promising results integrating ACT and CFT to increase self-compassion and diminish HIV-related stigma (Skinta, Lezama, Wells, & Dilley, 2015). Thus, we developed a 12-session group intervention (Kg-Free) for women with overweight and obesity that integrates mindfulness, ACT and self-compassion components.

This randomized controlled trial main goal was to test the efficacy of Kg-Free with women with overweight and obesity without binge eating. Kg-Free specifically aims at promoting quality-of-life and reducing weight self-stigma and unhealthy eating behaviors (emotional and uncontrolled eating) by targeting weight-related experiential avoidance and self-criticism. Our hypothesis is that after Kg-Free, participants will be more open, accepting and compassionate towards themselves and their unwanted internal experiences (especially those related to eating and weight), which will increase their well-being and quality-of-life. If a change occurs at this level, it is likely that participants will be increasingly able to