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Chapter 13

**SELF-COMPASSION INTERVENTIONS IN BODY
IMAGE: A REVIEW OF THE LITERATURE**

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ABSTRACT

There has been increasing interest in the potential benefits of self-compassion as an approach to promoting a positive body image and preventing risks associated with disordered eating behaviours. This chapter provides a critical review of studies that examine the buffering effect of self-compassion on body image concerns, weight-related issues, or eating behaviours, and/or the strengthening effect of self-compassion on positive body image. While findings indicated the benefits of self-compassion, effects were generally small to medium and varied with aspects of the study (sample size, study design, and collection of follow-up data), intervention type (e.g., meditation, writing), and intervention duration. Recommendations are provided for further evaluation research that uses robust methodologies to determine when and how self-compassion interventions assist with problems of body image and eating behaviours.

Keywords: self-compassion, body image, interventions

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INTRODUCTION

Body image is a multifaceted construct that comprises a person's perceptions, evaluations, emotions, and thoughts regarding his or her overall attractiveness, body shape and size (Grogan, 2008). Unfortunately, when societies value and reward appearance, body image may become distorted if perceived to be incongruous with societal body shape ideals. Gender stereotypes, often reinforced through exposure to unrealistic images of thin women and muscular men on social media, on other media platforms, or in everyday life, may lead individuals to develop self-critical and negative orientations toward their physical appearance.

The terms negative body image and body image concerns are often used interchangeably. They are typically characterised by body dissatisfaction, body shame, appearance anxiety, and body surveillance (Menzel, Krawczyk, & Thompson, 2011). Positive body image is not simply low levels of negative body image, but rather the acceptance of favourable views of one's body that include body appreciation and body image flexibility. It is a multifaceted construct that is flexible, holistic, and protective, and moves beyond simple appearance evaluation and satisfaction to include respecting, honouring, loving, and accepting the body, including its unique characteristics that differ from societal appearance ideals (Tylka & Wood-Barcalow, 2015). Table 1 provides definitions of the body image concerns and the facets of positive body image referenced in this review.

Table 1. Definitions of body image concerns and facets of positive body image

	Definitions
<i>Body image concerns</i>	
Body dissatisfaction	Subjective negative evaluations of one's own body or parts thereof (Cash, 2002).
Body shame	Perception that one has failed to achieve societal appearance ideals leading to distress or humiliation (McKinley & Hyde, 1996).
Appearance anxiety	Feeling of uneasiness or apprehension about one's body parts falling short of culturally-defined beauty standards (Reed, Thompson, Branick, & Sacco, 1991).
Body surveillance	Continuous body monitoring regarding concerns about how one's body appears to other people (McKinley & Hyde, 1996).
Appearance-contingent self-worth	Extent to which self-evaluations are dependent on one's physical attractiveness (Crocker, Luhtanen, Cooper, & Bouvrette, 2003).
<i>Positive body image</i>	
Body appreciation	Acceptance of, respect for, and gratitude toward one's body (Tylka & Wood-Barcalow, 2015).
Body image flexibility	Capacity to experience feelings, thoughts, and beliefs about one's body while pursuing effective action in other life domains (Sandoz, 2013).

Numerous strategies have been proposed to reduce body image concerns and increase positive body image. One approach seeks to enhance the extent to which individuals adopt a self-compassionate perspective when appraising their bodies. This chapter presents a critical review of research investigating the efficacy of self-compassion interventions in facilitating weight management and reducing body image concerns. Included in the review are studies that used samples of healthy weight, overweight or obese people, with or without disordered eating. Given the literature in this field is in its infancy, this small-scale critical review helps build a cumulative body of evidence that can guide and improve future research.

Body Image Concerns

Research has shown that body image concerns can start as early as childhood and remain stable throughout the lifespan. Studies from the U.S. show that approximately 50% of preadolescent girls and 30% of preadolescent boys dislike their body (Davison, Markey, & Birch, 2008; Smolak & Levine, 2001), while a study in China (Knowles, Ling, Thomas, Adab, & McManus, 2015) indicates that up to 85% of children desire smaller bodies than their perceived body sizes. In Australia, the 2017 Mission Australia Youth Survey (Bullock, Cave, Fildes, Hall, & Plummer, 2017) shows that approximately 41% of adolescent girls and 17% of adolescent boys are extremely or very concerned about their body image, whereas a study in Brazil shows that approximately 66% of adolescent girls and 55% of adolescent boys are dissatisfied with their body (Petroski, Pelegrini, & Glaner, 2012). Among adults, the British Social Attitudes Survey (2013) suggests that up to 43% of women and 29% of men are body dissatisfied, while a U.S. study shows that 32% of women and 28% of men have a negative body image (Fallon, Harris, & Johnson, 2014).

Sadly, body image concerns contribute to the development and maintenance of subclinical and clinical eating disorders (Fairburn, 2008) and are associated with mood and anxiety disorders (Paxton, Neumark-Sztainer, Hannan, & Eisenberg, 2006). Moreover, the prevalence of overweight and obese individuals has continued to increase over the past few decades in many countries (Finucane et al., 2011) and is associated with serious health consequences such as type 2 diabetes (Calle, Thun, Petrelli, Rodriguez, & Clark, 1999), mood and anxiety disorders, and eating disorders (Avila et al., 2015). Given the high prevalence of negative body image and eating pathologies, finding ways to facilitate changes in positive body- or weight-related behaviours and attitudes is an important yet challenging goal.

Numerous factors contribute to the challenges of achieving positive body image. For instance, the daily appearance-related threats people face that potentially evoke negative evaluations (e.g., attractive images on social media, trying on clothes, comments from

friends or family, breaking a diet) may derail their efforts to change maladaptive attitudes and behaviours, reinforce their dissatisfaction, highlight the gap between their own body and their perceived ideal body, and lead to a sense of failure and decreased self-esteem (Crocker & Wolfe, 2001; Heatherton & Baumeister, 1991).

Self-esteem tends to be contingent on success in areas of life that are important to us, such as being a good athlete or an attractive and popular person (Crocker, Luhtanen, Cooper, & Bouvrette, 2003). With self-esteem in the balance, there is an ever-present burden to achieve one's desired goals, including goals that may be unachievable by healthy means, such as the maintenance of an ideal body-shape. Exposure to a stream of coercive images or messages reflecting societal expectations may prompt a retreat to familiar negative body image attitudes and behaviours, and may undermine more positive strategies, such as showing respect and gratitude for one's body.

Self-Compassion

One concept that is not contingent upon positive judgements, comparisons, or evaluations, but rather offers emotional stability in times of humiliation or failure, is self-compassion (Neff, 2011). Compassion can be defined as feeling another's suffering and being moved to alleviate that pain (Goetz, Keltner & Simon-Thomas, 2010). Self-compassion has been conceptualised as compassion directed towards the self when suffering unavoidable, or self-inflicted, personal setbacks (Goetz, Keltner & Simon-Thomas, 2010; Neff, 2003). Research suggests that self-compassion is related to many aspects of psychological well-being (Neff & Vonk, 2009) via its negative associations with anxiety and depression (Johnson & O'Brien, 2013; Neff, Kirkpatrick & Rude, 2007) and its positive associations with happiness and optimism (Neff et al., 2007; Smeets et al., 2014).

In seeking to identify what comprises a self-compassionate frame of mind, Neff (2003) proposed three interacting components: self-kindness versus self-judgment, a sense of common humanity versus feelings of isolation, and mindfulness versus over-identification. In contrast to self-criticism and blame during difficult times, self-kindness involves being understanding toward oneself, while actively soothing and comforting oneself in times of distress. Common humanity involves an understanding and acceptance that failures and imperfections are part of the shared human experience, distinguishing it from the isolation of self-pity. Finally, the mindfulness aspect of self-compassion entails a balanced response (rather than an entirely emotional reaction) to distress that neither ignores difficult emotions nor ruminates on them. Indeed, positive emotions can be generated by acknowledging, embracing, and understanding negative emotions as valid and important (Neff, 2003; Neff et al., 2007).

In line with Neff's (2003) conceptualisation of self-compassion, Gilbert and Irons (2005) proposed that self-compassion deactivates the psychobiological threat system (associated with feelings of defensiveness and autonomic arousal) and activates the self-soothing system (associated with feelings of safety and the oxytocin-opiate system). In support of this proposition, studies show that self-compassion exercises practised in response to stressful situations can lower levels of cortisol and increase heart-rate variability, both of which are associated with the ability to self-soothe and deactivate defensiveness (Porges, 2007; Rockliff, Gilbert, McEwan, Lightman, & Glover, 2008).

Recent studies have shown that self-compassion is related to improved body image (Albertson, Neff, & Dill-Shackleford, 2015; Moffitt, Neumann, & Williamson, 2018; Seekis, Bradley, & Duffy, 2017; Toole & Craighead, 2016). Theory suggests several mechanisms through which self-compassion might decrease the characteristics of negative body image. First, the component of self-compassion that involves showing kindness and understanding towards oneself (self-kindness), in a similar way to how one might provide comfort to a distressed friend, is inconsistent with the negative self-evaluation and criticism of body dissatisfaction and body shame. Second, rather than focusing on one's individual identity (e.g., appearance contingent self-worth) or problem (e.g., habitual checking of one's body), the self-compassionate process of recognising that all humans experience appearance-related inadequacies and imperfections (common humanity) facilitates a connection to others during difficult times. This aspect of self-compassion might also help individuals avoid the pitfalls of isolation and self-pity that can exacerbate appearance-related anxiety. The third component of self-compassion, encouraging a non-judgemental and balanced attitude towards negative thoughts and emotions that may arise about one's body image (mindfulness), can help individuals acknowledge their felt pain and understand it without becoming overwhelmed. Furthermore, self-compassion may enhance aspects of positive body image such as body appreciation and body esteem by providing alternative ways of valuing and accepting oneself rather than striving to emulate societal appearance standards (Rodgers et al., 2018; Webb, Wood-Barcalow, & Tylka, 2015).

Self-compassion may also assist with healthy weight loss (Mantzios & Wilson, 2014, 2015) and attenuate disordered eating (Adams & Leary, 2007; Kelly & Carter, 2015). Research shows that self-criticism and shame often lead to, and help maintain, rigid dieting, disordered eating, or eating pathologies (McKinley & Hyde, 1996). While there is a belief that self-criticism can motivate people to adhere to a diet in order to achieve weight loss, inevitable diet failures are often met with self-derogation, distress, guilt, and depleted self-esteem (Neff & Seppälä, 2016). Paradoxically, overeating may serve as a self-protective function by regulating, or indeed masking, the distress caused by diet-breaking (Heatherton & Baumeister, 1991). However, when individuals apply a self-compassionate mind-set, they are less likely to be self-critical when breaking their diets (Adams & Leary, 2007), thereby deflating the negative self-evaluations that could trigger

overeating. For example, individuals who are compassionate towards themselves might realise there is no need for self-criticism (self-kindness) when they acknowledge and understand the negative feelings of shame or guilt (mindfulness) and recognise that most people break diets or skip exercise sessions (common humanity) (Sirois, Kitner, & Hirsch, 2015). This more realistic perspective may result in learning from past mistakes and may provide motivation to change for the better (Breines & Chen, 2012), thereby encouraging healthy eating as a lifestyle rather than a form of regimentation (Adams & Leary, 2007). In line with this, a recent meta-analysis of eight data sets showed a positive link between self-compassion and healthy eating habits (Sirois et al., 2015).

Interventions to Increase Self-Compassion

Given research evidence suggesting strong links between self-compassion and well-being, several intervention programs have been developed to teach people how to be more self-compassionate in daily life. Three examples of such interventions can be given. First, loving-kindness meditation (LKM) (Hofmann, Grossman, & Hinton, 2011) focuses on developing feelings of kindness and warmth through the repetition of phrases that convey a wish for happiness and the end of suffering. A 7-week study of LKM demonstrated increases in daily positive emotions (e.g., gratitude), purpose in life, and social support, as well as decreased illness symptoms, relative to a waitlist control (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008).

A second example of a self-compassion intervention is Gilbert's (2010) compassion-focused therapy (CFT), which aims to help individuals understand emotional reactions such as self-criticism and shame. Research suggests that CFT helps reduce depressed mood, anxiety, stress (Judge, Cleghorn, McEwan, & Gilbert, 2012), and eating disorders (Gale, Gilbert, Read, & Goss, 2014). Third, Germer and Neff (2013) developed a self-compassion training program called mindful self-compassion (MSC), which involves discussions, experiential exercises (such as letter-writing), and contemplative meditations designed to increase awareness and practice of self-compassion in daily life. Relative to a wait-list control, MSC program participants showed increased self-compassion and life satisfaction, as well as decreases in depressive symptoms, anxiety, stress, and emotional avoidance, with gains maintained for up to one year. This evidence suggests that self-compassion is a teachable skill that can meaningfully promote healthy attitudes and behaviour (Neff & Seppälä, 2016).

Given the expanding body of evidence to support the benefits of self-compassion for various psychological issues, evaluation of the efficacy of self-compassion interventions more specifically associated with body image outcomes seems warranted. The current chapter therefore aims to review the small but rapidly growing research literature on the

benefits of self-compassion for body image concerns, weight management, and positive body image.

METHODS

Search Strategies and Study Selection

Research papers were included if they evaluated the effects of self-compassion-based interventions on at least one of the following outcomes: weight loss, eating behaviours (e.g., binge eating), body image concerns (e.g., body dissatisfaction), or positive body image (e.g., body appreciation). The included articles were all peer-reviewed, published in English, and after 2003 (i.e., after the development of the Self-Compassion Scale: Neff, 2003). Three electronic data bases were searched (PsycINFO, ScienceDirect, and Embase), producing 649 articles. Subsequent to title/abstract screening, 49 articles remained for full-text verification. After full-text verification, 39 articles were excluded for not having a relevant intervention or experimental design. Ten articles describing self-compassion-based interventions or experiments relating to body image concerns, weight-related issues, eating disorders, and/or positive body image were included in the review.

Study Characteristics

Table 2 provides summary details of the ten reviewed studies. They comprise eight RCTs and two lab-based manipulations. They measured the effects of self-compassion interventions or experimental manipulations on the following primary outcomes: weight-related issues ($n = 4$) (Adams & Leary, 2007; Kelly & Carter, 2015; Mantzios & Wilson, 2014, 2015), eating disorders ($n = 1$) (Kelly & Carter, 2015), body image concerns and positive body image ($n = 5$) (Albertson et al., 2015; Seekis et al., 2017; Slater et al., 2017; Toole & Craighead, 2016; Rodgers et al., 2018), and body image concerns and self-improvement motivation ($n = 1$) (Moffitt et al., 2018). Study populations were adolescents in youth organisations or secondary schools and undergraduates (Rodgers et al., 2018), undergraduates only (Adams & Leary, 2007; Mantzios & Wilson, 2014; Moffitt et al., 2018; Seekis et al., 2017; Toole & Craighead, 2016; Slater et al., 2017), professional soldiers (Mantzios & Wilson, 2015), people diagnosed with binge eating disorder (BED) (Kelly & Carter, 2015), and body dissatisfied members of the general community (Albertson et al., 2015). Six studies included females only (Adams & Leary, 2007; Albertson et al., 2015; Moffitt et al., 2018; Seekis et al., 2017; Slater et al., 2017; Toole & Craighead, 2016). Intervention durations ranged from a 1-day lab manipulation

(Adams & Leary, 2007; Moffitt et al., 2018; Seekis et al., 2017) to a 6-month program with a 1-year follow-up (Mantzios & Wilson, 2015). Excluding the four studies that involved single-day interventions, attrition rates during the studies ranged from 4% (Toole & Craighead, 2016) to 28% (Mantzios & Wilson, 2015). Attrition at follow-up ranged from 19% (Mantzios & Wilson, 2014) to 50% (Albertson, et al., 2015). Sample sizes ranged from 35 (Kelly & Carter, 2015) to 274 (Rodgers et al., 2018), with an average of 125 participants across studies.

Four of the studies were conducted in the USA (Adams & Leary, 2007; Kelly & Carter, 2015; Rodgers et al., 2018; Toole & Craighead, 2016) two in Greece (Mantzios & Wilson, 2014, 2015), two in Australia (Moffitt et al., 2018; Seekis et al., 2017), one in the UK (Slater et al., 2017), and one was conducted worldwide with the majority of participants from the USA (Albertson et al., 2015). Although most studies included a measure of self-compassion, only five entailed administration of pre- and post-measures of a self-compassion scale so as to verify increases over time in levels of self-compassion (Albertson et al., 2015; Toole & Craighead, 2016; Rodgers et al., 2018; Mantzios & Wilson, 2014; Kelly & Carter, 2015). A variety of interventions were used including guided self-compassion meditation podcasts (Albertson et al., 2015; Toole & Craighead, 2016), guided and independent mindfulness or mindful LKM plus eating behaviour information (Mantzios & Wilson, 2015), mindful self-compassion meditation or mindful self-compassion eating diaries (Mantzios & Wilson, 2014), self-compassion or self-esteem writing tasks (Moffitt et al., 2018; Seekis et al., 2017), and a mobile phone application (app) delivering self-compassionate messages, emotion regulation, and gratitude journaling (Rodgers et al., 2018).

Table 2. Characteristics of Included Studies (n = 10)

Study 1
<ul style="list-style-type: none"> • Author (date), location: Adams and Leary (2007), USA • Study, design and duration: 1-day lab-based manipulation • Intervention(s)/control(s): Group 1: unhealthy food preload + SC; Group 2: unhealthy food preload; Group 3: no preload, no SC —all followed by a bogus taste test (ad libitum chocolate intake) • Participant characteristics: $n = 84$, female undergraduates; ($n = 28$ per group); Mean BMI $23.1\text{kg/m}^2 \pm \text{SD } 3.84\text{kg/m}^2$ • Measures taken: Restrictive eating; eating guilt; 6-item SC eating attitude manipulation check • Results and conclusions: SC eating attitude was \downarrow in Group 2 compared to Groups 1 and 3 ($p = .03$); restrictive eaters ate \downarrow after preloads in Group 1 compared to Groups 2 ($p = .08$) and 3 ($p = .05$); SC intervention significantly \downarrow eating following the food preload in restrictive eaters only.

<p>Study 2</p> <ul style="list-style-type: none"> • Author (date), location: Mantzios and Wilson (2014, study 3), Greece • Study, design and duration: 5-week RCT with 3-month follow-up • Intervention(s)/control(s): Group 1: daily MSC eating diary; Group 2: MSC meditation • Participant characteristics: 19.6% attrition at 3 months n = 98; Group 1 n = 48, Group 2 n = 50; M = 57, F = 41; Mean age 23.30 years ± SD 5.53 years; normal- and over-weight undergraduates interested in losing weight; Mean BMI 25.79 kg/m² ± SD 3.97 kg/m² • Measures taken: Weight loss; 26-item SC • Results and conclusions: MFSC diary and MFSC meditation did not result in any differences in weight loss at post-intervention, however at follow-up the MFSC diary group regained less weight than the MFSC meditation group (p < .001). SC ↑ in both groups.
<p>Study 3</p> <ul style="list-style-type: none"> • Author (date), location: Mantzios and Wilson (2015), Greece • Study, design and duration: 5-week pilot RCT; Group meditation 3×day, 6-mth independent meditation, 1-year follow-up • Intervention(s)/control(s): Group 1: LKM + eating behaviour information; Group 2: MF + eating behaviour information; Group 3 (control): eating behaviour information only • Participant characteristics: 28.4% attrition in first week only; n = 63, Group 1 n = 14, Group 2 n = 19, Group 3 n = 30; F = 22, M = 4; Mean age 23.03 years ± SD 3.10 years; military base soldiers; Mean BMI 26.63 kg/m² ± SD 4.35kg/m² • Measures taken: Weight loss • Results and conclusions: Body weight ↓ in Groups 1 and 2 at 5 weeks (p < .001); body weight ↓ in Group 1 at 6-month independent meditation (p < .001); no significant difference between groups at 1-year. Overall, Group 1 showed most weight change.
<p>Study 4</p> <ul style="list-style-type: none"> • Author (date), location: Kelly and Carter (2015), USA • Study, design and duration: 3-week pilot RCT • Intervention(s)/control(s): Group 1: CFT-based SC + food plan; Group 2: CBT-based behavioural strategies + food plan; Group 3: waitlist • Participant characteristics: n = 41; F = 32, M = 9; 5 withdrew in week 1 & one in week 3; n = 35: (Group 1 n = 11, Group 2 n = 12, Group 3 n = 12); community sample diagnosed with BED; Mean age 45 years ± SD 15 years; Mean BMI 33 kg/m² ± SD 1.05 kg/m² • Measures taken: Diagnosis for BED; dietary restraint; eating/weight/shape concerns; 26-item SC • Results and conclusions: Weekly mean binge days ↓ in Groups 1 and 2 more than control (p < .01); eating concern (p < .05) and weight concern (p < .01) ↓ for Group 1 only. SC ↑ in Group 1 (p < .05).
<p>Study 5</p> <ul style="list-style-type: none"> • Author (date), location: Albertson, Neff, and Dill-Shackleford (2015), Worldwide • Study, design and duration: 3-week RCT & 3-month follow up • Intervention(s)/control(s): Group 1: 20-min daily SC meditation podcast; Group 2: waitlist • Participant characteristics: n = 228 (Group 1 n = 98, Group 2 n = 130); all females; at 3-month follow-up n = 51 for Group 1 (50% attrition); Mean age 36.42 years ± SD 1.31 years; general community sample • Measures taken: Body dissatisfaction; body shame; appearance contingent self-worth; body appreciation; 26-item SC • Results and conclusions: At posttest: Body dissatisfaction, body shame and appearance-contingent self-worth ↓ in Group 1 compared to Group 2 (p < .001); body appreciation and SC ↑ in Group 1 compared to Group 2 (p < .001). At 3 months: all differences were maintained (p < .05). More meditation ↑ BA.

Table 2. (Continued).

<p>Study 6</p> <ul style="list-style-type: none"> • Author (date), location: Toole and Craighead (2016), USA • Study, design and duration: 1-week RCT • Intervention(s)/control(s): Group 1: 20-min daily SC meditation podcast; Group 2: waitlist • Participant characteristics: n = 87, female undergraduates; 4.6% attrition at posttest (n = 40 per group); Mean age 18.85 years ± SD 0.87 years; Mean BMI 22.20 kg/m² ± SD 3.60 kg/m² • Measures taken: Body dissatisfaction; body surveillance; body shame; appearance-contingent self-worth; body appreciation; 26-item SC • Results and conclusions: Body surveillance and appearance-contingent self-worth ↓ in Group 1 compared to Group 2 (ps < .05); body appreciation ↑ in Group 1 compared to Group 2 (p = .047). SC ↑ in both groups, however self-criticism ↓ in Group 1 compared to Group 2.
<p>Study 7</p> <ul style="list-style-type: none"> • Author (date), location: Slater, Varsani, and Diedrichs (2017), UK • Study, design and duration: 1-day lab-based manipulation • Intervention(s)/control(s): 20 Instagram images viewed for 5 mins. Group 1: Fitspiration; Group 2: SC messages; Group (3) fitspiration + SC messages; Group (4) control: neutral images of interior design • Participant characteristics: n = 160 (n = 40 per group), female undergraduates; Mean age 21.21 years ± SD 2.06; Mean BMI 23.37 kg/m² ± SD 2.76 kg/m² • Measures taken: State body dissatisfaction; 2-item state body appreciation; 2-item state SC (from the self-kindness sub-scale) • Results and conclusions: No difference between Group 1 and control in body dissatisfaction; Group 2 ↑ body satisfaction compared to control and Group 3. No difference between Group 1 and control in body appreciation; Group 2 ↑ body appreciation compared to control and Group 3. State SC ↑ in Groups 2 and 3 compared to Group 1 and control (ps < .001).
<p>Study 8</p> <ul style="list-style-type: none"> • Author (date), location: Seekis, Bradley, and Duffy (2017), Australia • Study, design and duration: 1-day RCT with 2-week follow-up • Intervention(s)/control(s): 15-min writing tasks. Group 1: SC; Group 2: Self-esteem; Group 3: academic topics • Participant characteristics: n = 96 (n = 32 per group); n = 88 at follow-up; female undergraduates; Mean age 19.45 years ± SD 1.84 years • Measures taken: State: body dissatisfaction; appearance anxiety; body appreciation; 3-item state appearance-based SC manipulation check • Results and conclusions: At posttest: Groups 1 and 2 ↓ body dissatisfaction compared to control (ps < .05); Group 1 ↑ body appreciation compared to Group 2 and control (ps < .05); no group differences for appearance anxiety. At 2-weeks: Groups 1 and 2 ↓ body dissatisfaction compared to control (ps < .05); Group 1 ↑ body appreciation compared to control (p < .001); appearance-based SC ↑ in Group 1 compared to Group 2 and control (ps < .05)
<p>Study 9</p> <ul style="list-style-type: none"> • Author (date), location: Rodgers et al. (2018), USA • Study, design and duration: 6-week RCT with 12-week follow-up • Intervention(s)/control(s): Twice daily SC messages + emotion regulation + gratitude journaling delivered by app, over 6 weeks. Group 1: intervention; Group 2: waitlist • Participant characteristics: n = 274 F = 74%, M = 26%; at 6-weeks: Group 1: n = 112-121, Group 2: n = 116-123; at 12-weeks: Group 1: n = 108-114, Group 2: n = 117-118; students from high schools, university, and youth organisations.

Study 9 Continued
<ul style="list-style-type: none"> • Measures taken: Appearance comparison; appearance esteem; body image flexibility; 26-item SC • Results and conclusions: Appearance esteem ↑ in Group 1 over time compared to waitlist ($p = .023$); appearance comparison ↓ for both groups over time ($ps < .05$); no group differences in body image flexibility; SC ↑ in Group 1 compared to waitlist over time ($p = .002$).
Study 10
<ul style="list-style-type: none"> • Author (date), location: Moffit, Neumann, and Williamson (2018), Australia • Study, design and duration: 1-day RCT • Intervention(s)/control(s): 3-min writing tasks. Group 1: SC; Group 2: Self-esteem; Group 3: positive distraction • Participant characteristics: $n = 149$; female undergraduates; Group 1: $n = 49$; Group 2: $n = 51$; Group 3: $n = 49$; Mean age 21.77years ± SD 5.81 years. Mean BMI 23.44 kg/m² ± SD 4.82 kg/m² • Measures taken: Trait: body dissatisfaction; SC; self-esteem; State: body dissatisfaction: (i.e., weight & appearance dissatisfaction & bodily distress); self-improvement motivation • Results and conclusions: State weight & appearance dissatisfaction ↓ in Groups 1 and 2 compared to Group 3 ($p = .007$ and $p = .023$) & Group 1 ↓ more than Group 2 ($p < .001$ and $p = .001$); State bodily distress ↓ in Groups 1 and 2 compared to Group 3 only ($p = .011$). Self-improvement motivation ↑ in Group 1 compared to Group 2 only ($p < .001$). Superiority of SC over self-esteem became significant at moderate body dissatisfaction.

Note: BMI body mass index, RCT randomised controlled trial, SC self-compassion, MSC mindful self-compassion, LKM loving kindness meditation, MF mindfulness, CFT compassion focused therapy, CBT cognitive behaviour therapy; F female, M male, ↑ increased or higher; ↓ decreased or lower.

RESULTS

Self-Compassion Interventions and Weight Loss

Two of the reviewed studies in this review examined weight loss. In the first of these, Manztios and Wilson (2014), randomly assigned male and female undergraduates who were trying to lose weight to a self-compassionate diary writing group or a mindfulness and LKM group. Participants assigned to the diary writing group spent a few moments before and during meals, guided by self-compassionate messages, considering how to eat. For example, to induce common humanity, one question asked, ‘How important is it for me and all people to eat healthy?’. To induce self-kindness, a question asked, ‘How kind are you to yourself now that you eat this meal?’ The questions were presented in a diary or event-based journal that covered every meal over a five-week period. The meditation group members participated in a three-day introduction to mindfulness and LKM that included eating meditation. At five weeks (posttest), members of both groups had, on average, lost similar amounts of weight. However, at three months (follow-up), the diary group had lost more weight than the meditation group. The study did not include a non-intervention control group and manipulation checks were not conducted, nor were effect sizes reported.

The second study compared the effects of mindful meditation and MSC meditation to a control condition at 5-weeks, 6-months, and 1-year post-intervention (Mantzios & Wilson, 2015). Participants were male and female soldiers from the same military base, who wanted to lose weight. All three groups received information on how to diet more effectively. Both experimental groups also received two hours of mindfulness meditation, with the MSC group receiving an additional hour of meditation training covering loving kindness. After five weeks, members of both experimental groups had on average lost more weight than had the control group members. For the next six months, participants in the meditation groups were asked to independently continue with the daily meditation, while the control group participants continued with their eating plan. After six months, cumulative weight loss was greater for the MSC than for the mindfulness meditation and control groups. At 1-year follow-up, however, the groups did not differ in weight loss. Notably, the majority of participants in the MSC group reported they did not continue the self-compassion meditation once they had achieved their desired weight and this possibly negated potential longer-term intervention benefits. While weight loss was assessed objectively, levels of self-compassion, mindfulness, and eating behaviours were not monitored throughout the intervention or during follow-up. Effect sizes were not reported.

Self-Compassion Manipulation and Dietary Disinhibition

Disinhibition effect is a term used to describe instances where restricted eaters overeat following a preload of foods they consider to be forbidden (Adams & Leary, 2007). A lab-based experiment by Adams and Leary (2007) investigated whether inducing a self-compassionate state would reduce the tendency for restrained eaters (those desiring or trying to avoid unhealthy food) to overeat after eating an unhealthy food preload.

Female undergraduates (31% of whom reported to be on a diet) were randomly assigned to one of three groups: (a) preload/self-compassion condition (preload/SC), (b) preload/no-self-compassion condition (preload/no-SC), or (c) no-preload control condition. During phase one, all groups watched a 4-minute segment of an educational video, however, the two preload groups ate one doughnut and one glass of water during the segment.

In the next phase, the preload/SC participants received a short talk about the preload that encapsulated the three components of self-compassion. In phase 3, all participants were asked to eat at least one of three candies presented, however, there was no limit. Finally, all participants rated their self-compassionate responses to diet-breaking.

Highly restrictive eaters in the preload/no-SC condition reported less self-compassionate eating attitudes than did those in the no-preload, and preload/SC,

conditions. Additionally, highly restrictive eaters in the preload/SC condition ate fewer candies than restrictive eaters in the no-preload condition and marginally less than the preload/no-SC condition. Thus, the unhealthy preload may have caused highly restrictive participants to be more self-critical about their eating, paradoxically leading to overeating, but the self-compassion manipulation may have eliminated this effect. Effect sizes were not reported. Overall, this short self-compassion induction both reduced distress and helped those who had broken their dietary rules to reduce the tendency to overeat.

Self-Compassion Intervention and Binge Eating Disorder

A pilot study by Kelly and Carter (2015) sought to compare a self-compassion-based intervention for binge eating disorder (BED) to a behaviourally based intervention for BED (Goss, 2011; Goss & Allan, 2011) and a waitlist control group. BED is defined by regular binge eating sessions accompanied by loss of control (i.e., the inability to stop eating), followed by feelings of shame and guilt (American Psychiatric Association, 2013). Participants were predominantly female who all met DSM-5 (American Psychiatric Association, 2013) criteria for BED. They were randomly assigned to either self-compassion self-help intervention, behavioural self-help intervention, or waitlist control groups.

During the three-week intervention, following corresponding psycho-educational sessions, the behavioural self-help participants were encouraged to develop alternative activities to replace binge eating when urges arose and to record the strategy/strategies used. They also wrote about what they had learned from each day's eating, urges, and strategies, and how this may have affected their strategies the following day. The self-compassion self-help group was encouraged to cultivate a self-compassionate mindset through imagery, self-talk, and letter-writing whenever they encountered urges to binge or had actually binged despite best efforts. Each evening, participants completed an online compassionate imagery visualisation and wrote themselves a letter in which they self-compassionately reflected on their day and encouraged themselves for the day ahead. They were asked to report the frequency of objective binges the week prior to the study and to keep self-monitoring records of their objective binges each day of the study.

Outcomes included improvements in (a) binge eating, (b) underlying pathologies such as weight, shape and eating concerns and restraint, (c) depression, and (d) both positive (e.g., self-kindness) and negative (e.g., self-judgement) aspects of self-compassion. A baseline measure of fear of self-compassion was used to assess its moderating effect on the outcomes. High fear of self-compassion – that is, strong concerns about embracing self-compassion for fear that it might lead to indulgence (Gilbert, McEwan, Matos, & Rivis, 2011) – has been shown to correlate positively with

eating disorder pathology and has predicted poorer response to eating disorders treatment over 12 weeks (Kelly, Carter, Zuroff, & Borairi, 2013). Thus, assessing the moderating effect on outcomes was a potentially informative contribution to understanding treatment resistance.

On average, both intervention conditions reduced weekly mean binge days more than the control condition. Overall eating disorder pathology, eating concerns, and weight concerns decreased in the self-compassion condition only. Importantly, however, contrasts revealed that only participants low in fear of self-compassion (from the SC group) showed decreases in these variables, with an additional decrease in shape concerns. Self-compassion also increased in the self-compassion group relative to the behavioural and control groups. Effect sizes were generally small. Specifically, the positive aspects of self-compassion improved in the self-compassion group only, whereas the negative aspects of self-compassion increased for the control group only. To isolate these effects, however, this pilot study would have benefited from a fourth condition comprising an eating plan and monitoring only. Additionally, changes in fear of self-compassion were not assessed by condition.

Self-Compassion Manipulation and Body Image

A trend known as ‘fitspiration’ has emerged in recent years on social networking sites. Fitspiration is a portmanteau of ‘fitness’ and ‘inspiration’ and consists of images and messages that profess to motivate women to exercise and pursue a healthier lifestyle (Abena, 2013). Slater et al. (2017) experimentally examined the impact of exposure to fitspiration images and self-compassion quotes on the social networking site Instagram, on young women’s state levels of body satisfaction, body appreciation, self-compassion, and negative mood. Furthermore, the authors investigated whether adding self-compassion quotes to the fitspiration images would buffer any negative effects associated with these images and whether thin-ideal internalisation might act as a moderator. Female undergraduates were randomly assigned to one of four groups: (a) fitspiration, (b) self-compassion, (c) fitspiration + self-compassion, and (d) control. The 20 images used in the ‘fitspiration’ condition depicted young women with lean and toned bodies wearing form-fitting active-wear clothing. The self-compassion condition contained 20 quotes that conveyed the concept of self-compassion against a neutral background without human images. The self-compassion + fitspiration group received 15 of the fitspiration group’s images and five of the self-compassion group’s images, while the control group received 20 interior design images only. Each group viewed their 20 images for five minutes in the same manner they would view an Instagram account. All dependent variables were assessed pre- and post-intervention.

No differences on any of the dependent variables were found between the S-C and fitspiration conditions, or between the S-C and control conditions. Notably, however, women with average to high thin ideal-internalisation reported greater body satisfaction and self-compassion, and less negative mood, after viewing self-compassion images relative to those who viewed control (interior design) images. There were no differences between the control group and fitspiration group in any of the body image concerns or negative mood, suggesting that exposure to fitspiration images did not induce the predicted negative body image or mood. Given the lack of such negative effects, the study was unable to demonstrate a true buffering effect of self-compassion. Notably, state body satisfaction, body appreciation, and self-compassion were higher, while negative affect was lower at post-exposure, for women who viewed fitspiration + SC images relative to fitspiration images only, but not relative to self-compassion alone.

Self-Compassion Interventions for Body Image Concerns and/or Positive Body Image

Five RCT studies investigated the efficacy of self-compassion interventions on body image concerns and positive body image. Two of these studies used self-compassion meditation (Albertson et al., 2015; Toole & Craighead, 2016), two used self-compassion writing tasks (Moffitt et al., 2018; Seekis et al., 2017), and one used self-compassion messages and exercises via a mobile phone application (Rodgers et al., 2018).

Self-Compassion Meditation and Body Image

In the first study, Albertson et al. (2015) examined whether a 3-week period of self-compassion meditation training (adapted from MSC) would improve body image among a multigenerational group of women experiencing some level of body image distress. Women who engaged in the self-compassion meditation training were expected to experience higher levels of self-compassion and body appreciation, as well as lower levels of body dissatisfaction, body shame, and appearance-contingent self-worth, compared to a waitlist control group at post-intervention and at 3-month follow-up. Participants were randomly assigned to the intervention or waitlist control group. Each week, intervention participants received a different podcast containing an instructional 20-minute self-compassion meditation.

Compared to the control group, participants in the intervention group showed greater reductions in body dissatisfaction (moderate effect size), body shame (moderate effect size), appearance-contingent self-worth (small effect size), and greater gains in body appreciation (moderate effect size). At the 3-month follow-up, all gains were maintained. Importantly, increased levels of self-compassion were associated with all body image variables, suggesting that increasing self-compassion improved body image concerns in

the intervention group. However, participants were not blinded to the treatment, time allocated to the meditation podcasts was reliant on self-report, and the follow-up phase was subject to a high attrition rate (50%). To isolate the effects found in this study, a comparison of self-compassion meditation with a standard treatment for body image such as cognitive behavioural therapy would have been desirable.

The second study, by Toole and Craighead (2016), utilised the same self-compassion meditation training as Albertson et al. (2015) to examine its efficacy on body image distress in undergraduate women. To improve the retention rate, the intervention period was reduced from three weeks to one week but did not include a follow-up assessment. Women with body image concerns were randomly assigned to intervention or waitlist control groups. Following the initial self-compassion meditation exercise in the lab, intervention participants were sent an email at the same time each day with a link to a 20-minute self-compassion meditation training podcast. Podcasts were embedded into surveys to track frequency of use; however, duration or completion rates of meditation sessions were not monitored.

Participants in both the intervention and control groups increased in self-compassion at post-intervention. However, when self-esteem was entered as a covariate, this effect was no longer significant; a not unexpected finding, given the moderate correlation between self-esteem and self-compassion (Neff, 2011). Nevertheless, participants in the intervention group reported greater reductions in the negative aspects of self-compassion (e.g., self-judgment) relative to the control group, even when self-esteem was included as a covariate. The intervention group showed higher body appreciation, and lower body surveillance and appearance-contingent self-worth, relative to the control group. There were no significant effects on body dissatisfaction or body shame. Effect sizes were not reported. Contrary to the study aims, the modifications did not seem to increase engagement with the meditation podcasts, with half of the participants only completing the initial self-compassion meditation exercise and not participating in the weekly meditation podcasts. However, all participants returned post-intervention questionnaires suggesting that even a brief 20-minute exposure to embracing a self-compassionate attitude toward one's body is beneficial in inducing measurable changes in body image concerns and positive body image.

Self-Compassion Writing Tasks and Body Image

Seekis et al. (2017) examined whether single-session self-compassion and self-esteem writing tasks ameliorated the body image concerns evoked by a negative body image induction relative to an active control. Compared to enhancing self-esteem, inducing self-compassion toward one's body was expected to be more efficacious, both immediately and at two-week follow-up, in reducing appearance anxiety and increasing body satisfaction and body appreciation. Both these treatments were expected to be more efficacious than a control writing task. Undergraduate women were randomly assigned to

one of three groups: (a) self-compassion writing, (b) self-esteem writing, or (c) writing about academic topics. All participants were asked to imagine viewing themselves in two unflattering photographs on their friend's social media site and then were asked to complete the writing task.

The intervention in each condition was a 15-minute writing exercise that was guided by three researcher-provided prompts. Each prompt in the self-compassion condition was designed to induce one of the three positive elements of self-compassion. Each prompt in the self-esteem condition focused participants on self-affirmations to increase confidence, rather than attend to the body image distress induced by the scenario in an understanding way. To control for the possibility that writing itself could affect body image, participants in the control condition responded to three prompts relating to academic topics.

As expected, participants in both the self-compassion and self-esteem groups reported higher state body satisfaction than the control group members at post-treatment and follow-up, with moderate effect sizes. In addition, the self-compassion group had higher body appreciation than both the self-esteem and control groups at post-intervention (with moderate to large effect sizes), although this difference was found at follow-up relative to the control group only (with a large effect size). Notably, the self-esteem group did not differ from the control group at either post-intervention or at follow-up on body appreciation. No writing task had an effect on appearance anxiety. Appearance-related self-compassion was higher in the self-compassion group than the self-esteem or control groups. However, trait self-compassion and self-esteem were not assessed and, therefore, the impact of the interventions on these characteristics remains unknown. Similarly, trait levels of body appreciation, body satisfaction, and appearance anxiety were not assessed, so it is not possible to determine the extent to which the writing tasks merely "undid" the adverse effect of reading the negative body image scenario, rather than providing a genuine improvement upon baseline levels. The researchers argued that with the multiple appearance-related threats women encounter in real life (e.g., magazines, social media, films), an intervention that simply ameliorates some of the negative impacts of these incidents is beneficial.

The second writing task study, by Moffitt et al. (2018), extended the study by Seekis et al. (2017) by including three baseline measures of trait body dissatisfaction. Moffitt et al. also included a measure of self-improvement motivation. This was done to investigate whether self-compassion writing had a positive effect on motivation for self-improvement in the context of body dissatisfaction, when compared to self-esteem and control writing tasks. All participants were asked to view, for approximately 30 seconds each, 16 magazine images depicting young, thin women from fashion and bikini shoots, after which they were encouraged to compare themselves to the images by responding to three statements.

The intervention conditions involved a 3-minute writing task. Participants in the self-compassion intervention were asked to write a paragraph reflecting self-kindness.

Participants in the self-esteem intervention were asked to write a paragraph describing positive qualities. Finally, participants in the distraction group were asked to write a paragraph describing an enjoyable hobby.

As predicted, the self-compassion group showed a decline in weight and appearance dissatisfaction compared to both the self-esteem group (with a large effect size) and control group (with a moderate effect size). Although participants in the self-compassion and self-esteem groups showed declines in bodily distress when compared to the control group (with a small to moderate effect size), there was no difference between the self-compassion and self-esteem groups. With regards to self-improvement motivation in the context of body dissatisfaction, the combined intervention groups did not differ from the control group, however, the self-compassion group had higher self-improvement motivation than the self-esteem group (with a large effect size). Additionally, the superiority of self-compassion over self-esteem was significant at moderate to high levels of trait body dissatisfaction.

In this study, the self-compassion task attempted to induce only the self-kindness aspect of self-compassion, rather than all three components, so it is unknown how the inclusion of common humanity and mindfulness may have influenced the outcomes. It is also unclear whether an increase in self-compassion for the self-compassion group was associated with the decrease in body dissatisfaction and increase in self-improvement motivation, as this was not assessed. However, given that intervention efficacy increased with higher levels of pre-intervention state body dissatisfaction, it seems that spending a few minutes treating oneself with kindness and understanding may help individuals, particularly those with greater body dissatisfaction, feel more positively about their body.

Self-Compassion via a Mobile Phone Application and Body Image

Rodgers et al. (2018) evaluated the efficacy of a mobile application (app), BodiMojo, grounded in self-compassion, to promote positive body image, improve mood, and decrease body image concerns, within a randomised controlled trial at 6-weeks and at 12-week follow-up. BodiMojo is an application developed for mobile phones (iOS) designed around three active components: (1) intervention messages delivered through the app, (2) mood tracking and emotional regulation, and (3) gratitude journaling.

Male and female late adolescents and emerging adults were randomly assigned to the intervention group or waitlist control. Participants allocated to the experimental group received twice-daily messages focused on the three pillars of self-compassion. These daily intervention messages came in the form of an affirmation, a behavioural tip, or psychoeducation, and some came with links to a quiz or an audio meditation. The second component required participants to record their feelings daily by clicking on a mood cloud that depicted different emotions; subsequently, they could access corresponding supportive emotional regulation statements. The final component consisted of a gratitude

journal within the app, where, each day, participants recorded five things for which they were grateful.

Compared to the control group, participants who used the BodiMojo intervention reported improved appearance esteem and self-compassion over time. No effects were found for body image flexibility or appearance comparison, and positive mood reduced for both groups. Effect sizes were not reported. Unfortunately, a technical problem prevented collection of data on the time spent using the app. While *BodiMojo* provides a flexible means of streamlining and testing the efficacy of self-compassion messages, the effects of self-compassion were not isolated and may have been confounded with the other intervention components.

DISCUSSION AND CONCLUSION

This review aimed to evaluate the efficacy of self-compassion-based interventions on weight-related issues, body image concerns, and positive body image. Although only ten studies were reviewed, all suggested that self-compassion might have beneficial effects on a range of outcomes in people who experience body image concerns. These benefits can include weight loss (Mantzios & Wilson, 2014, 2015), reduced dietary disinhibition (Adams & Leary, 2007), reduced binge eating (Kelly & Carter, 2015), reduced eating disorder risk factors (Albertson et al., 2015; Moffitt et al., 2018; Seekis et al., 2017) and increased appreciation for one's body (Albertson et al., 2015; Toole et al., 2016; Seekis et al., 2017). These results are consistent with the theoretical evidence explaining how the self-soothing qualities of self-compassion might alleviate barriers to weight-related issues and body image concerns by improving emotional regulation decreasing self-critical thoughts, and increasing acceptance (Adams & Leary, 2007; Albertson et al., 2015; Moffitt et al., 2018; Seekis et al., 2017; Toole et al., 2016).

Some self-compassion interventions were also shown to promote psychological well-being (such as reducing negative affect and mood disturbance) that can be associated with unhealthy eating behaviours (Mantzios & Wilson, 2014; Braun, Park, & Gorin, 2016). Such findings are consistent with a recent meta-analysis indicating that, on average, moderate effect sizes were found for compassion-based interventions on well-being and mental health (Kirby, 2017). In addition, our review suggests that even self-compassion manipulations that are brief (e.g., writing tasks, one-session meditations, or online messages accompanying body images) (Moffitt, et al., 2018; Seekis, et al., 2017; Slater et al., 2017) can promote healthy body image attitudes.

Although all studies provided evidence of the effectiveness of self-compassion interventions, most studies did not produce positive effects in all sub-groups of their sample and/or on all dependent variables measured. Notably, body dissatisfaction, body appreciation, body surveillance, and appearance-contingent self-worth were most reliably

affected by self-compassion interventions. However, as the number of studies included is small, further research is needed to replicate and extend these findings. In addition, limitations in the research methods employed, as noted below, make the conclusions of the review tentative.

Sample sizes ranged from 35 (Kelly & Carter, 2015) to 274 (Rodgers et al., 2018) participants, with an average of 125 participants. All studies were conducted in Western countries. While many included a small percentage of non-Caucasian participants, samples were predominantly white, thus, the obtained effects may not apply to non-Caucasians in Western nations or non-Western nations. Given that recent research indicates high body dissatisfaction prevalence rates in countries such as China and Brazil, further investigation in these and other non-Western populations is warranted.

The studies are heterogenous in intervention design and duration. Most studies had methodological limitations such as lack of a control group (Mantzios & Wilson, 2014) and/or high attrition rates in either the intervention phase (Toole & Craighead, 2016; Mantzios & Wilson, 2015) or follow-up phase (Albertson et al., 2015; Mantzios & Wilson, 2014; Rodgers et al., 2018). The follow-up periods ranged from 2 weeks to 1 year, with evidence from several studies showing that substantial effects could be sustained for 3-6-months. The efficacy of interventions that have not yet been evaluated over this duration could be examined in future research. Research could also assess the contributions that can be made by booster sessions delivered 3 or more months after an initial intervention.

Measurement issues must also be considered. One study used only two items from two validated scales (Slater et al., 2017), while another two studies adapted items from the three components of the scale measuring self-compassion to eating attitudes (Adams & Leary, 2007) or appearance (Seekis et al., 2017). This raises doubts as to whether those items provided a valid assessment of the trait or attitude as intended. Nine of the ten studies relied on self-report, thereby increasing the risk of response bias, with only one study objectively assessing weight loss. Additionally, only four studies reported effect sizes, and most of these were small. The absence of effect sizes hinders proper interpretation of the findings (Applebaum et al., 2018).

Some studies included intervention elements other than self-compassion, such as mindfulness, gratitude diary writing, and psycho-educational information related to eating behaviours (Mantzios & Wilson, 2015), food planning (Kelly & Carter, 2015), or body image concerns (Rodgers et al., 2018). Therefore, conclusions about the influence of self-compassion are difficult to draw. Similarly, some studies included wait-list control groups but did not compare the self-compassion intervention with another standard or readily available treatment. This has the disadvantage of not controlling for placebo, or participant expectation, effects.

Six studies included only women, while a further two comprised predominantly women. A recent meta-analysis showed that women are slightly less compassionate

towards themselves than are men (Yarnell et al., 2015), suggesting that women may be more likely to benefit from self-compassion interventions. However, evidence suggests that, for many men, there is a negative relationship between feelings of inadequacy, shame, and self-criticism, on the one hand, and self-compassion regarding their conformity to masculine ideals, on the other (Reilly, Rochlen, & Awad, 2014). Specifically, that study suggested that reducing shame may be a key component to men's healthy self-concepts, highlighting the need for interventions that increase men's acceptance of vulnerable emotional states during times of distress. There is also evidence indicating that people high in self-criticism might be resistant to the idea of self-compassion training (Kelly & Carter, 2015; Gilbert et al., 2011). It would therefore be beneficial for future studies to examine men's and women's attitudes toward self-compassion interventions.

The evaluation literature on self-compassion-based interventions is still in its infancy, and many more rigorous trials are needed to assess the utility and effectiveness of these interventions on body image and eating-related issues for non-clinical and clinical populations. Further research using robust methodology and longer study periods is needed to fully understand the effects of self-compassion. Furthermore, it is important for future studies to investigate how self-compassion might affect the links (e.g., internalisation of appearance ideals and appearance comparisons) between the challenges people face and body image concerns. Further research is also needed to compare the effect of various types of self-compassion interventions, and the three components of self-compassion, in men and women, to determine which interventions and which components help to cultivate self-compassion most effectively. Given the high prevalence of negative body image in pre-adolescents and adolescents, another worthy research topic is when and how self-compassion could be taught to youth.

Overall, findings from this review show promise for self-compassion interventions aimed at improving body image attitudes and behaviours. When people feel they are falling short of cultural ideals, a self-compassionate perspective can help them acknowledge that all humans are imperfect, allowing them to relate to themselves with kindness and concern. Perhaps taking a kind and non-critical view of the self may provide an effective and relatively simple way to overcome the challenges of maintaining a healthy and positive body image.

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