

**Examining the Effectiveness of Self-Compassion Intervention to Reduce Body  
Dissatisfaction Among Malaysian Young Adults**

by

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## **ABBREVIATIONS**

ANOVA	Analysis of Variance
BSQ	Body Dissatisfaction Scale
CBCT	Cognitively-Based Compassion Training
CCT	Compassion Cultivation Training
CEB	Cultivating Emotional Balance
CFT	Compassion Focused Therapy
DV	Dependent Variable
IV	Independent Variable
LKM	Loving-Kindness Meditation
LOMSC	Live Online Mindfulness Self-Compassion
MFY	Mindfulness for Youth
MSC	Mindfulness Self-Compassion
SCS	Self-Compassion Scale

## ABSTRAK

Dengan peningkatan isu kesihatan mental yang merudum dalam kalangan orang dewasa, penerokaan mengenai intervensi psikologi boleh dipelbagaikan untuk memenuhi keperluan ini. Salah satu isu yang membimbangkan ialah ketidakpuasan bentuk tubuh yang mempengaruhi persepsi individu terhadap penampilan fizikal mereka sendiri secara negatif. Kajian menunjukkan bahawa tahap belas kasihan sendiri yang tinggi dikaitkan dengan aspek kesihatan mental yang sejahtera, dan boleh memberi manfaat dalam mengurangkan ketidakpuasan bentuk tubuh. Kajian terdahulu mendapati intervensi bertemakan belas kasihan sendiri berkesan mengurangkan beberapa jenis psikopatologi termasuk gejala ketidakpuasan bentuk tubuh.

Kajian semasa bertujuan untuk mengkaji sama ada teknik intervensi belas kasihan sendiri bermanfaat dalam mengurangkan tahap ketidakpuasan bentuk tubuh dalam kalangan orang dewasa. Untuk meneliti perkara ini, kajian pra dan pasca (*pre- and post-study*) telah dijalankan untuk melihat sama ada intervensi belas kasihan sendiri memberi faedah terhadap dua aspek iaitu tahap belas kasihan sendiri dan ketidakpuasan bentuk tubuh. Sembilan pelajar prasiswazah telah menyempunakan intervensi berkumpulan atas talian. Nine undergraduate students fully completed the brief online self-compassion group intervention. Mereka menghadiri sesi berdurasi satu jam sebanyak dua kali seminggu dalam tempoh empat minggu, berjumlah selama lapan sesi. *Self-Compassion Scale (SCS)* dan *Body Shape Questionnaire (BSQ)* telah digunakan untuk mengukur tahap belas kasihan sendiri dan tahap ketidakpuasan bentuk tubuh. Tahap belas kasihan sendiri dan tahap ketidakpuasan bentuk tubuh peserta sebelum dan selepas intervensi telah dibandingkan untuk mengenalpasti jika ada perbezaan yang ketara.



Analisa statistik *Paired t-test* menunjukkan tiada perbezaan ketara dalam tahap belas kasihan sendiri dan tahap ketidakpuasan bentuk tubuh sebelum dan selepas intervensi. Kajian ini tidak mempunyai saiz sampel mencukupi untuk mencapai keputusan yang konklusif dan tuntas. Walau bagaimanapun, campur tangan itu tidak menjejaskan tahap belas kasihan sendiri atau ketidakpuasan bentuk tubuh secara negatif dan boleh dianggap selamat. Implikasi dibincangkan dan cadangan untuk penyelidikan masa depan disertakan.

## ABSTRACT

With the rise of mental health issues among adults, the exploration of psychological interventions can be diversified to cater to this need as a public health measure of improving general wellbeing. One issue of concern is body dissatisfaction which influences individuals' perception of their own physical appearance negatively. Research shows high levels of self-compassion is positively linked to better aspects of mental health and has benefits for body dissatisfaction. Previous studies found benefits of self-compassion intervention in reducing psychopathology including symptoms of body dissatisfaction.

The current study aimed to examine whether there is a benefit of self-compassion intervention techniques in reducing levels of body dissatisfaction among young adults. To examine this, pre-and post-experimental design was conducted to see whether online self-compassion intervention has benefits on two aspects which are self-compassion and body dissatisfaction. Nine undergraduate students fully completed the brief online self-compassion group intervention. They participated in a bi-weekly 1-hour online group intervention for four weeks, for eight sessions. Self-Compassion Scale (SCS) and Body Shape Questionnaire (BSQ) were used to measure their levels of self-compassion and body dissatisfaction respectively. The participant's pre- and post-intervention level of self-compassion and body dissatisfaction were compared to identify any significant differences.

Paired *t*-test statistical analysis showed no difference in both self-compassion level and body dissatisfaction level before and after the intervention. The current study lacks sample size to arrive at a conclusive result. However, the intervention did not negatively affect levels of self-compassion or body dissatisfaction and can be

considered safe. Implications are discussed and recommendation for future research is included.

*Keywords:* self-compassion, body dissatisfaction, online intervention, paired sample t-test, young adults

## **Examining the Effectiveness of Self-Compassion Intervention to Reduce Body Dissatisfaction in Malaysian Young Adults**

There is a need for psychological tools and interventions for young adults to improve their mental well-being. With the rise of social media usage and greater accessibility to information, comes more challenges to the youth's mental health. They are now faced with a curated reality that clouds their perception of how they are expected to dress, talk, behave, and represent themselves in public (Tamplin et al., 2018). One commonly known issue is body dissatisfaction among young adults. This constructed societal pressure from social media is known to play a role in the declining mental health among young adults (Karim et al., 2020). With this challenge, there is a need to study interventions that can help improve their body dissatisfaction and improve overall wellbeing.

To date, mental health professionals have been studying interventions or techniques to help individuals with mental health problems. In Malaysia, more online workshops with mental health professionals targeting young adults are introducing concepts such as resilience, gratitude, mindfulness, and self-compassion. Self-compassion practice focuses on helping individuals to 'treat' themselves and their critical voice with a kinder approach while dealing with personal mistakes or failure (Neff, 1996). Recently, self-compassion has been studied more among young adults with psychological difficulties including negative body image.

### **1.1 Self-Compassion and its Potential**

Neff (2009) defines self-compassion as consisting of three elements which are self-kindness, common humanity, and mindfulness. Self-kindness is the practice of being kind and understanding towards self in difficult experiences as opposed to being self-critical. Common humanity is viewing one's suffering (i.e., failures, mistakes, or pain) as something commonly felt by other humans instead of thinking

that suffering is only happening to self. Finally, mindfulness is being aware of thoughts and feelings, as opposed to ‘over-identification’, the extreme act of self-attachment to negative emotions and feelings (Neff, 2009).

According to Neff (2009), self-compassion intervention uses techniques that are developed to improve the three elements of self-compassion. Firstly, individuals are encouraged to adopt a kind and compassionate attitude towards their negative experiences instead of criticising themselves. When faced with failure, self-compassion suggests understanding that unpleasant experiences are a shared reality rather than assuming negative experiences only happens to oneself as a result of inadequacy or mistakes. Lastly, self-compassion involves being mindful of an individual's negative thoughts and feelings, instead of over-identifying or suppressing them.

Self-compassion exercises can be done with instructors or practised individually using materials available online. Mindfulness Self Compassion (MSC) is a paid program designed by Centre for Mindful Self Compassion (CMSC) to teach self-compassion with trained instructors often calls a “teacher”. It is offered in various formats depending on the participants involved and the objectives. As an example, Live Online Mindfulness Self-Compassion (LOMSC) is an online 8-week course offered via weekly online video conference (Neff & Germer, 2013). Outside of the program, individuals can access the self-compassion exercises available on Neff's website ("Self-Compassion Exercises by Dr. Kristin Neff", 2020). The main forms of self-compassion exercise for individual's self-practice include audio guided meditation and self-compassion writing exercise.

### ***Using Self-Compassion to Improve Body Dissatisfaction***

Improving self-compassion is beneficial for mental health and may reduce body dissatisfaction. Breines and colleagues (2014) found that higher self-compassion predicts lower body shame, lower anticipated disorder eating and lower weight-gain concern. They propose that self-compassion may lower disordered eating due to healthier relationships with body image. A review by Braun and colleagues (2016) suggests a negative relationship between self-compassion and eating disorders or negative body image for both clinical and nonclinical populations.

### ***Body Dissatisfaction***

Body image is an individual's perception, thoughts, and feelings towards their physique. It includes the impression of body silhouette, size, weight, muscularity, as well one's sense of attractiveness (Burrowes, 2013). From a psychological perspective, a person's body image can be positive or negative. Body dissatisfaction is a body image distortion characterized by negative evaluation towards the body and can be considered as a negative body image. For adolescents and young adults, greater body dissatisfaction is linked to mental and physical health problems such as eating disorders. Psychological intervention can be used to cultivate positive body image, including using self-compassion techniques in reducing body dissatisfaction.

Body dissatisfaction is a type of body image disturbance. It comprises the negative thoughts or emotional association towards the physical appearance and is linked to a strong urge to change the body appearance (Grogan, 2016). Prevalence studies indicate that dissatisfaction is seen across cultures and for people with different weight ranges. While findings suggest body dissatisfaction is more common among individuals in Western culture, there is an increasing prevalence in the non-

Western countries such as China and Malaysia. In different countries and age groups, it is more evident in female compared to male, and more likely seen, but not exclusive to, individuals with abnormal weight issues (i.e., overweight, obese). Body dissatisfaction may also begin as early as adolescence stage of development (Burrowes, 2013).

Greater body dissatisfaction in adolescents can lead to psychological and physical health problems. In Western and Asian countries, body dissatisfaction is associated with abnormal eating habits and extreme weight-loss behaviours. In a cross-sectional study, dissatisfaction towards body weight is linked to depressive symptoms, regardless of age, sex, or body mass index (BMI) (Richard et al., 2016). A longitudinal study suggests that body dissatisfaction beginning in adolescence remains stable until adulthood, suggesting like traits and behaviours, adolescence is a critical period of shaping healthy body image (Wang et al., 2019). Hence, more research is being conducted to intervene with body dissatisfaction in adolescents and help them achieve a healthier body image, including self-compassion intervention.

### ***The Local Context***

To date, in Malaysia, self-compassion studies have been conducted among adults but it is still scarce. Kotera and Ting (2021) found that self-compassion is the strongest predictor of mental health among other positive psychological constructs for Malaysian students. Among local undergraduates, self-compassion is significantly related to self-regulation of health behaviour and social connectedness. Furthermore, there is no gender differences in the level of self-compassion (Ying et al., n.d.). We also acknowledge that there are some limitations in research of self-compassion in Malaysia, as the validated measures and intervention tools available

online are mainly in English. Self-compassion programs online itself is not available for the primary languages in Malaysia.

The lack of study about self-compassion in Malaysia limits our knowledge about its potential usefulness among young adults. As we know from the research, body dissatisfaction is not a Western-exclusive mental health issues. It might be helpful to probe into this problem and study whether self-compassion intervention will help in reducing body dissatisfaction among young adults in Malaysia.

## **1.2 Problem Statement and Study Rationale**

This study will examine the effectiveness of self-compassion intervention as a psychosocial intervention to improve body dissatisfaction and individual's self-compassion for nonclinical young adults . The level of self-compassion has been previously looked into among young adults in Malaysia (Px et al., 2011), but no studies have explored the effectiveness of self-compassion techniques. The current study hopes to explore whether self-compassion intervention will help to improve young adult's relationship with their body by reducing body dissatisfaction and increase their overall mental health.

This study will hopefully add to the body of knowledge about self-compassion practice in Malaysia. We intend to find evidence of its usability, then provide information for future researchers to investigate the types of self-compassion exercise that will be useful to increase self-compassion. We wish to explore whether self-compassion intervention improves one's self-compassion level and whether it helps in decreasing body dissatisfaction.

## **1.3 Research Questions**

The current study aims to answer the following questions:



- a) Will brief self-compassion intervention increase levels of self-compassion?
- b) Will brief self-compassion intervention reduces body dissatisfaction?

#### **1.4 Objectives**

Based on the outlined research questions, the current study aims to evaluate the effectiveness of brief self-compassion intervention in reducing the body dissatisfaction among young adults. Specifically, this study is set out to achieve the following objectives:

- a) To determine whether participants receiving brief self-compassion intervention have higher level of self-compassion post-intervention compared to the control group
- b) To determine whether participants receiving brief self-compassion intervention have lower level of body dissatisfaction post-intervention compared to the control group
- c) To determine whether participants receiving brief self-compassion intervention have lower of body dissatisfaction and self-compassion after the intervention

#### **1.5 Hypotheses**

Based on our current research questions and the stated objectives, we propose a few hypotheses to guide the direction of our research. The predictions for the current study are as outlined as follows.

##### ***Hypothesis 1***

H<sub>0</sub>: There is no difference between the level of self-compassion among individuals in the intervention group compared to the control group after the intervention

H<sub>1</sub>: The level of self-compassion in young adults significantly greater for the intervention group compared to the control group post-intervention

### ***Hypothesis 2***

H<sub>0</sub>: There is no difference between the level of body dissatisfaction among individuals in the intervention group compared to the control group after the intervention

H<sub>1</sub>: The level of body dissatisfaction is significantly lower the intervention group compared to the control group post-intervention

### ***Hypothesis 3***

H<sub>0</sub>: There is no difference between the level of body dissatisfaction and self-compassion among young adults before and after receiving the self-compassion intervention

H<sub>1</sub>: There level of body dissatisfaction is reduced and self-compassion is greater among young adults after receiving the self-compassion intervention compared to before

## **1.6 Operational Definition**

### ***Self-Compassion.***

Self-compassion in the current study refers to the concept of self-compassion introduced by Neff (2003). The components for self-compassion are self-kindness, common humanity and mindfulness. It is operationally defined by the total score on Self-Compassion Scale (SCS; Neff, 2003) a tool created to objectively measure levels of self-compassion. The SCS constitutes six subscales which are *self-kindness*, *self-judgment*, *common humanity*, *isolation*, *mindfulness* and *overidentification*.

### ***Self-compassion Exercise.***

In the current study, self-compassion intervention consists of a range of techniques used in the intervention aimed to improve the level of self-compassion as defined by Neff (2003). The self-compassion exercises include techniques used in the Mindfulness Self-Compassion program (Neff & Germer, 2013), which will be discussed later.

### ***Body Dissatisfaction.***

Body dissatisfaction is defined by high scores on self-report measures of body's perception such as Body Shape Questionnaire (BSQ; Cooper et al., 1987). In the current study, participants who exceeds the cut-off score measured on BSQ are classified as having body dissatisfaction.

### ***Young Adults.***

A young adult is defined by those aged between 18 to 25 years as suggested by the Society of Adolescent Health and Medicine ("Young Adult Health and Well-Being: A Position Statement of the Society for Adolescent Health and Medicine," 2017).

## **1.7 Conceptual Definition**

In this section, we reiterate the conceptual definitions of body dissatisfaction, self-compassion, and self-compassion exercise. We aim to summarize our understanding of these concepts, which are the variables of interest in the current study.

### ***Self-Compassion***

Theoretically, self-compassion is how an individual relates to themselves by practicing compassion inwardly. Specifically, self-compassion consists of three aspects; self-kindness, viewing suffering as a common human experience as well as being mindful and non-judgmental of their experiences, thoughts or emotion that

arise within them. High level of self-compassion is associated with better psychological outcomes. As stated above and highlighted in the upcoming chapter, self-compassion is linked to better psychological well-being. We also understand that self-compassion can be improve or acquired, like a skill. This is done by practicing self-compassion exercises.

### ***Self-compassion Exercise***

Self-compassion exercise is evidence-based psychological techniques which includes elements of self-compassion. It is a range of exercise that is developed and taught to help individuals increase or maintain self-compassion within themselves. The exercises include exercises such as daily mindfulness practice or writing a letter or giving self-reminders to be more self-compassionate whenever a painful experience occurs in daily life.

For instance, self-compassion-based mindfulness practice is a type of mindfulness exercise focusing on being self-compassionate. The script of this mindfulness practice encourages individuals to be kind, open and non-judgmental to their difficult experiences and emotion. Another example is writing a compassionate letter. In this exercise, individuals write down letters communicating their compassion and understanding to themselves, like talking to a friend who is going through a difficult time.

### ***Body Dissatisfaction***

Body dissatisfaction can be described as feeling (emotion) or perception (cognition) and actions (behavior) of an individual towards their body part or overall physique. It is a negative perception towards their physical appearance. This so-called body image is more commonly related to visible features of the body such as

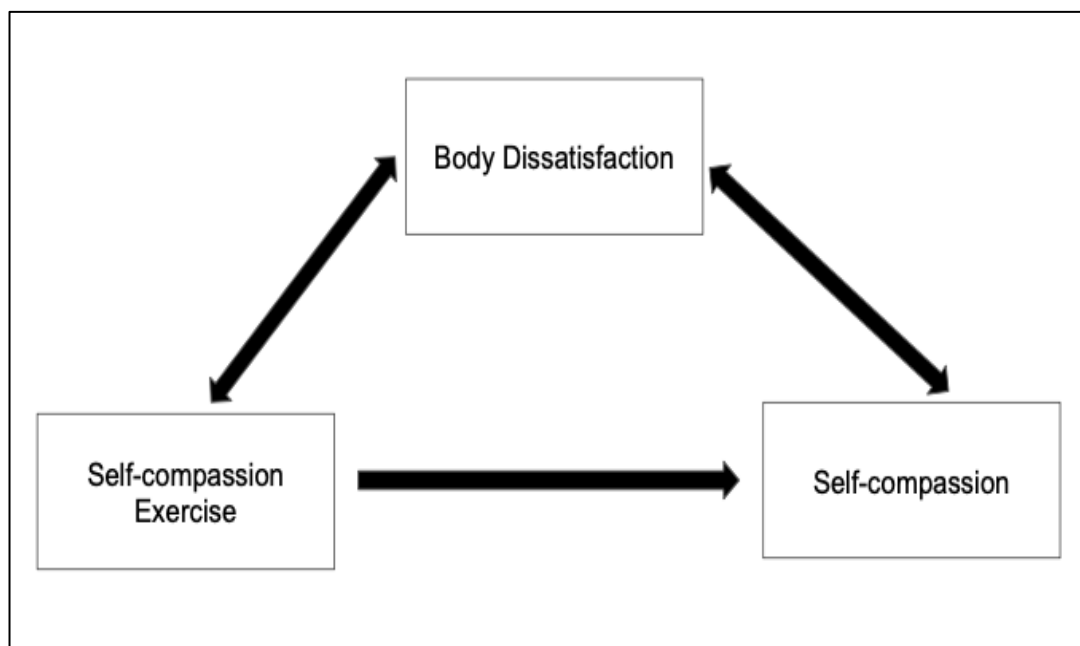
the skin color and texture, body weight, height, shape of body parts, symmetricalness and etcetera. Individuals with body dissatisfaction are not satisfied with their overall look and sometimes engages in behaviors to change them due to the intense dissatisfaction (i.e., trying out plastic surgery, avoid social activities). This phenomenon is a debilitating psychological condition causing individuals who have it to feel inadequate, ugly, and it is associated with the need to change something on their physical appearance.

### 1.8 Conceptual Framework

The conceptual framework of the current study is as illustrated in Figure 1, explaining the relationship between the three variables mentioned above.

**Figure 1**

*The Relationship between Body Dissatisfaction, Self-Compassion Exercise, and Self-Compassion.*



*Note.* The above figure demonstrates the conceptual framework and organizations of variables in the current study.

As stated, Figure 1 above illustrates the conceptual framework for the current study. As demonstrated in the literature review, the self-compassion exercise aims to improve self-kindness through improving self-kindness, create awareness that

difficult experiences are a part of human experience and increase mindfulness. Contrastingly, it will lower self-judgment and over-identification with negative thoughts. The self-compassion exercise also reduces the belief that difficult or negative experience is experience in isolation to self only. Furthermore, self-compassion exercise will increase body appreciation and lower the level of body dissatisfaction.

## **CHAPTER 2: LITERATURE REVIEW**

This chapter reviews the research on self-compassion and body dissatisfaction. To begin, we explain the theory of compassion and how self-compassion. Then, we will review self-compassion studies and their findings. We also discuss the general effectiveness of self-compassion techniques and interventions will be outlined.

Following that, we to provide an overview the link between body dissatisfaction and self-compassion. Finally, we discuss interventions for body image dissatisfactions, factors contributing to effectiveness of intervention, and finally how self-compassion intervention has been used to address body dissatisfaction.

### **2.1 Compassion and Self-Compassion**

To understand self-compassion, it is crucial to first understand what is compassion. Grounded in the idea Buddhist' teachings, compassion is understood as a non-judgmental and open heartedness attitude to the suffering of self and other people by treating suffering compassionately and with kindness (Kirby et al., 2017). This definition assumes that human faces difficulties and suffer. The concept of compassion since then has expanded and studied by psychologists.

Nussbaum (2003) suggests three key cognitive aspects of compassion based on Aristotle's definition of compassion. They suggests that compassion stems from three beliefs which are i) suffering poses a serious threat, ii) that human being does not deserve to suffer, and lastly iii) those who experience emotion have similarity with the sufferer. The cognitive beliefs combined induces what we know today as compassion.

### ***Social Mentality Theory***

Drawing from the understanding that humans are evolved to having the capacity to be compassionate, the social mentality theory (SMT) suggests that human beings evolve to become building blocks of social activity by acting on social roles such as caring for others, cooperating to achieve a goal, competing for resources and reproduce to continue surviving as a species (Hermanto & Zuroff, 2016). This theory was developed as a way of viewing how different aspects of an individuals are responsible to establish relationship with others.

Social mentality theory proposes that different aspects of the mind work together or is 'activated' in performing different social acts. For example, SMT proposes that while our emotions motivates us to care for the need and feeling of others, emotions related to threats or harming others are turned off. It is suggested that compassion is at the core of 'care-giving mentality' components which includes sensitivity, sympathy, empathy, distress tolerance, caring for well-being and non-judgment (Hermanto & Zuroff, 2016). This notion is supported by multiple neuroimaging studies showing the neural network are activated while perceiving pain in others, supporting the claim that social functions such as empathy is linked to a map of brain activation (de Vignemont & Singer, 2006; Shamay-Tsoory, 2011). On the other side of the coin, self-compassion entails directing the care and kindness inwardly, to self.

### ***Defining Self-Compassion***

Self-compassion involves treating oneself with kindness, understanding that suffering is a universal human experience, and being mindful of unpleasant emotions (Neff, 2003). Grounded in the same Buddhist approach to mindfulness and being compassionate, self-compassion adopts similar non-judgmental approach and caring



for well-being as outlined in compassionate mind. However, there is not much emphasis on sensitivity, sympathy, empathy or distress tolerance. Rather than focusing on physical pain or external suffering, self-compassion is more commonly discussed as a tool to address harsh and critical attitudes towards while experiencing the suffering (Yadav, 2016).

## **2.2 Self-Compassion Intervention**

Studies have been conducted whether self-compassion can be improved using intervention specifically targeting self-compassion. From what we know, there are programs developed and studied to assess the effectiveness of self-compassion techniques. For instance, Neff and Germer (2013) developed Mindfulness Self-Compassion, a structured program to teach one practice self-compassion. Preliminary studies showed some benefits of the interventions. However, the knowledge about generalizability of these interventions to clinical and nonclinical populations is limited. More experimental studies with different populations are needed. In research, studies are more interested in focusing on specific techniques of self-compassion approach rather than studying the developed program itself.

To do this, self-compassion based exercises are adopted from the self-compassion based intervention. Mindfulness is a state of awareness achieved by intentionally paying attention while not suspending any judgment to the situation or unpleasant emotions (Williams & Kabat-Zinn, 2011). There is some overlap in techniques used in self-compassion with compassion-based intervention and other mindfulness-based intervention which is the mindfulness technique. We will discuss the different types of self-compassion intervention and techniques available.

### ***General Intervention Benefits***

A growing number of evidence suggests the benefit of self-compassion for psychosocial outcomes. To date, the empirically supported compassion interventions includes Compassion Focused Therapy (CFT), Compassion Cultivation Training (CCT), Cognitively-Based Compassion Training (CBCT), Cultivating Emotional Balance(CEB) Loving-Kindness (LKM), Compassion Meditations and Mindful Self-Compassion (MSC). When compared with waitlist conditions, all compassion-based interventions have significantly improved compassion, self-compassion and well-being, but with moderate effect size. The interventions also reduce psychological distress, anxiety and depression, with similarly moderate effect sizes (Kirby et al., 2017).

### ***Self-Compassion Interventions and Their Benefits to Health Behavior***

Self-compassion may help in reducing the treatment of eating disorders by reducing eating pathology. Studies show that greater increase in self-compassion is related to greater reduction in eating disorder symptoms for standard treatment of eating disorders. Generally, individuals with eating disorders also show lower levels of self-compassion and greater fear towards self-compassion compared to the non-clinical samples. For both clinical and non-clinical samples, self-compassion is negatively linked to body dissatisfaction and eating-disorder outcomes (Braun et al., 2016). This evidence provides preliminary support that self-compassion may benefit those with eating disorders.

However, self-compassion intervention may not benefit individuals with other psychological disorders or experiencing psychological difficulty. Compared to the control group, self-compassion intervention moderately increases the level of self-compassion and reduces the symptoms of anxiety and depression (Wilson et al.,

2019). However, they found that self-compassion intervention is not superior to other active control conditions in increasing self-compassion. They proposed that self-compassion itself is a modifiable psychological characteristic in therapies.

Additionally, Wilson and colleagues (2019) suggest that interventions intending to increase self-compassion itself to improve psychopathology may be questionable. Majority of the studies show that the change in levels of self-compassion pre- and post-intervention is not exclusive to self-compassion related interventions, it is also seen in other forms of treatment. To sum, they conclude that self-compassion itself can be improved via therapeutic interventions, intervention targeting self-compassion intervention is no better from other forms of interventions.

Another meta-analysis examined the link between self-compassion intervention and different psychosocial outcomes (Ferrari et al., 2019). Similar to Wilson and colleagues (2019), they found moderate significant effects of intervention towards self-compassion. Furthermore, the finding about clinical outcomes demonstrates self-compassion intervention has a large effect of eating behaviours and rumination. However, it has moderate effects towards depression, anxiety, stress, mindfulness, and self-criticism. It has a small effect on life satisfaction. Follow up studies also indicate potential benefits in its effect for depression.

More recently, a meta-analysis (Phillips & Hine, 2021) explored the relationship between self-compassion, physical health and health-promoting behaviour. They found that found there is a small but positive correlation between self-compassion and health behaviour. However, their moderation analyses revealed that the effects differs based on health domain, age, intervention duration and the self-compassion measures used. They suggests that self-compassion does not predict

maladaptive body routine, supporting findings that those with higher self-compassion are more likely to engage in health promoting behaviour in patients with a medical condition (Ferrari et al., 2017). We note that although self-compassion has its health benefit, it is worth noting that self-compassion effect is moderated by individual factors and the duration of intervention.

Currently, there is a demand for better study design of self-compassion based intervention. Across the literature, the number of randomized controlled studies in self-compassion intervention is small. Despite the results showing moderate effect sizes in positive psychological outcomes, more rigorous research methods in studies are required to establish the positive outcomes of self-compassion intervention with confidence that it is effective. Other issues include the high heterogeneity in self-compassion intervention, small sample size and lack of control condition. Some researchers stress the need of (Kirby et al., 2017, Wilson et al., 2018).

### **2.3 Body Dissatisfaction**

Research in body dissatisfaction often include the factors associated with body dissatisfaction, it's potential harm and ways to intervene with it. As stated earlier, body dissatisfaction is a negative attitude of an individual's body image. While body dissatisfaction seems like a 'state' of mind due to an external change in one's body shape, it can be harmful as it is a psychological issue and can be chronic. Individuals who experience body dissatisfaction may benefit from interventions design specifically to address this psychological issue.

As found by Burrowes (2013), a significant number of studies looked at younger participants including children and adolescents. They found that body dissatisfaction may commence in childhood. Although the prevalence of body dissatisfaction is quite low for children, studies demonstrated that body misperception occurs in both male and female adolescents. Their misperception of

body weight and shape in early adolescents predict weight control behaviours in the following years (Burrowes, 2013). Hence, body dissatisfaction may arise since childhood and influence individual's health behaviour.

A systematic review examined the link between adolescents and young adult's body image concern and weight-related behaviours (Shagar et al., 2017a). The systematic review included 46 studies published between 2005 to 2017. In the review, adolescents were categorized as aged between 10-19 years old while young adults fall between the age 18-25 years old. All studies used questionnaires.

They found that body weight perception is strongly connected to weight-related behaviors. This relationship, however, differs based on sexes. Generally, female adolescents are more likely to overestimate their weight, express the desire to lose weight and are more prone to engage in behaviours such as self-induced vomiting, or consuming weight-loss supplements. Contrary to this, male adolescents are more likely to underestimate their weight and have greater desire to increase body weight (Shagar et al., 2017b).

All studies about body dissatisfaction and weight related behaviour found significant positive relationships between the two variables. Greater body dissatisfaction is connected to the risks of maladaptive eating patterns, weight-restricting behaviours such as dieting, extreme weight loss activities and preoccupation with body weight. Those with higher body dissatisfaction have an increased chance of developing eating disorders. Cross-sectional and longitudinal data suggests that adolescents with higher body dissatisfaction have a greater risk of being preoccupied with weight and engaging in weight-restricting behaviours in the following years (Shagar et al., 2017b).

The findings were established based heavily on self-report data. Most of the studies rely on self-report measuring only one or two aspects of body image. This poses potential bias of self-reporting and creates a lack of comprehensive measure about body image. Despite the limitation, the study highlights that greater body dissatisfaction affect individuals' physical health specifically attitude around weight and weight-control behaviour. Additionally, there is evidence from two longitudinal studies showing that body dissatisfaction persists until they become adults (Shagar et al., 2017). Due to the small number of longitudinal studies, our current understanding of how body image affect young adults as they get older is limited.

In Malaysia, body dissatisfaction among adolescents is associated with BMI and sex. Latiff and colleagues (2018) explored determinants of body dissatisfaction among adolescents in primary school in Kelantan. They found that 60% of the students ( $N = 776$ ) were dissatisfied with their body. This suggest that body dissatisfaction can begin as early as childhood. Consistent with previous findings, they found that females are more likely to have high body dissatisfaction compared to males. Adolescents with higher Body Mass Index (BMI) in overweight or obese categories were four times more likely to show body dissatisfaction compared to those belonging in normal or underweight BMI range.

Nonetheless, growing number of evidence showed that body dissatisfaction is serious psychological issue, and it may benefit from early intervention.

#### **2.4 Other Interventions for Body Dissatisfaction**

There is an increasing number of interventions explored to reduce body image dissatisfaction and improve overall body perception. Alleva and colleagues (2015) conducted a meta-analytic review of stand-alone interventions to improve body image. Forty three studies from the United States, Canada, Netherlands,

Turkey, United Kingdom, Portugal and Sweden from the year 1987 to 2015 were included. Sixty two tests of interventions were identified and twelve techniques were extracted found to be helpful in improving body image.

They categorized body image interventions into five types which are Cognitive Behavioral Therapy (CBT) techniques, fitness training, media literacy, self-esteem enhancement and psychoeducation. The goal in CBT is to change individuals dysfunctional belief, thoughts and behaviour related to body image. Fitness training includes exercise to improve physical capacities while media literacy aims to teach individuals to critically analyze the portrayal of body image in the media that may influence body image. Self-esteem intervention employs identifying and appreciating individual differences, strength, talents and building skills for a healthy coping mechanism. Lastly, psychoeducation involves teaching about negative body image itself (Alleva et al., 2015).

Results suggest twelve techniques that contribute to significant improvement in body image. Effective techniques include some CBT-based intervention including discussing the role of cognitions in body image, monitoring and restructuring cognition, changing the negative language associated with the body. Greater improvements were seen when the intervention incorporated relapse prevention strategies, and the inclusion of discourse about topics such as the source of negative body image and its behavioural consequences. Guided imagery, exposure and body-size estimate exercise were found to be effective too. Contrastingly, techniques involving exercise to increase self-esteem, amplifying individual differences and discussing physical activity were linked to poorer body image (Alleva et al., 2015).

Interventions were also more effective when targeting adolescents compared to children or young adults. Participants showed greater improvements when

interventions involved multiple sessions and were delivered in group format with a facilitator. The interventions were also more effective for those who demonstrated the presence of body dissatisfaction pre-study. The efficacy of the interventions was inconclusive as no follow-up studies were conducted.

The findings suggest potential biases within individual studies and across different studies. Majority of the studies failed to outline methods of random allocation to the intervention group vs control group. In large a number of studies, participants were not blinded to the allocated condition. They also found that the effect sizes about body image intervention are inflated due to publication bias and small sample size. Overall, based on unpublished studies, adequately powered studies, with trim and fill analyses revealed a small but reliable effect size for body image intervention.

The review by Alleva and colleagues (2015) provides information on the potentially effective techniques and important aspects of intervention which are useful for future studies to consider when designing an intervention. They highlighted the potential bias across studies and within individual studies, so careful measures can be taken in the future to limit biases. However, it did not investigate the use of technological tools such as apps or online-based intervention since the media is quite strongly related to negative body image. Moreover, some approaches such as gratitude-based strategies, family-based intervention or compassion-based techniques were not discussed.

## **2.5 How Body Dissatisfaction Relates to Self-Compassion**

There are different findings in relationship between self-compassion and body dissatisfaction. In a study of women's body image among university students, they found that higher self-compassion predicts lower body image concerns



and less eating guilt in female undergraduates (Wasylikiw et al., 2012). Interestingly, they found that specifically self-judgment, a negative component measured in Self-Compassion Scale, predicts body preoccupation.

This is further supported by a study suggesting that self-judgment component mediates the effect of maladaptive perfectionism to body dissatisfaction and disordered eating among US college women (Barnett & Sharp, 2016). A similar findings was seen in a study of Italian female however suggests no relationship between self-compassion and body dissatisfaction. However, over-identification, a negative subscale in self-compassion scale is associated with body dissatisfaction (Nerini et al., 2019). These research suggests that greater scores on negative components of self-compassion is closely related to body dissatisfaction.

Self-compassion also plays protective roles in negative body image in young adults. In a study involving adolescents, self-compassion is found to have an additional protective role against body image concerns in young male as well as lessening the effects of risk factors negative body image (Rodgers et al., 2017). Research suggests that self-compassion lessen the effect of body dissatisfaction in adolescents with suicidal ideation (Fan et al., 2022).

More evidence is supporting that self-compassion helps in improving body image and eating disorder. A review was conducted to establish the link between these three variables (Braun et al., 2016). Twenty eight studies based on correlational design longitudinal and experimental design were included, including largely White participants.

They found that greater self-compassion is linked with lower internalization of thin ideals, social appearance comparisons, preoccupation with body condition, drive for thinness, body shame, and body dissatisfaction. Furthermore, greater self-

compassion is related to greater body appreciation. Self-compassion is associated with greater improvements in self-compassion and body appreciation, as well as decreased body dissatisfaction and body shame post-intervention and in three months follow up (Braun, Park & Gorin, 2016).

Muris and Petrocchi (2017) found that the negative indicators of self-compassion are more strongly linked to psychopathology than the negative indicators. As we know from the theory, self-compassion comprise of three components which are self-kindness, common humanity and mindfulness. Self-Compassion Scale (SCS), the most widely used tool to measure self-compassion, includes three reverse-scored subscales which assess the ‘opposites’ of the three components which are self-judgment, isolation, and overidentification.

In their meta-analysis, the negative indicators are more significantly related to health problems studied in research, which may result to an escalated relation to self-compassion. This is due to the nature of these subscales tapping into the vulnerability factors for many mental health problems which can inflict a potential bias when finding the relationship between self-compassion and body dissatisfaction.

## **2.5 Self-compassion Interventions for Body Dissatisfaction**

The main techniques for self-compassion intervention in body dissatisfaction study include mindfulness practice and writing. Additionally, an important component in delivering intervention include teaching about self-compassion.

### ***Mindfulness Self-compassion Practice.***

The meditation involves using audio-guided meditation adapted from Mindfulness Self-Compassion to increase mindfulness of self-compassion. In this form of intervention, participants are given a pre-recorded meditation audio and they will be advised on the frequency of meditation (Dundas et al., 2017). The guided

practices are available online and they are in English. The audio ranges from 5 to 20 minutes of different mindfulness practice with self-compassionate approach in the script.

Self-compassion meditation may be beneficial in improving body image. Randomized control trials reported in the literature show three weeks intervention of 20 mins daily audio guided meditation significantly improve self-compassion and body image. Studies also show that the self-compassion intervention group shows lower body surveillance and appearance contingent self-worth, but has no effect on body dissatisfaction or body shame (Rahimi-Ardabili et al., 2018) Significant improvements in self-compassion and body dissatisfaction from three weeks of brief meditation training were maintained after three months (Albertson et al., 2015)

### ***Self-compassion Writing.***

Another commonly used intervention involves writing or journaling (Kirby et al., 2017). This type of intervention makes use of guided writing exercise or letter writing. In guided writing, individuals are given prompts to write or review stories about difficulties based on the three elements of self-compassion. Letter writing involves writing a compassionate letter to self, to help put thoughts and emotion into perspective (Kelly & Carter, 2015).

As a result, self-compassion writing exercise induced better body appreciation, reduced weight and appearance dissatisfaction compared to the control group. Writing a compassionate letter predicts lower depression. However, writing tasks did not have an effect on self-reported anxiety, or the motivation to improve body image (Rahim-Ardabili et al., 2017).

While these self-compassion techniques demonstrate positive results for nonclinical populations, the findings are still limited. This is due to the fact that

randomized controls experiments are still small in number and have been mostly used by adult participants. Both of these techniques require some degree of explanation about the concept of self-compassion hence, proper translation to a language for the desired group is crucial. While there is an urge to examine whether self-compassion interventions will benefit adolescents, future investigation must take note of limitations from previous studies and carefully design intervention best suited for the age groups.

Additionally, previous studies of self-compassion intervention often include teaching about the meaning of self-compassion, and how to integrate it in daily life (Neff & Germer, 2013). This technique is like psychoeducation, as individuals are taught about self-compassion and how it is practiced. Although the findings about its effectiveness is limited, it becomes a crucial part of the intervention as it is the introductory component to almost all official self-compassion intervention program.

### ***Mindfulness Self-Compassion and its Adaptations.***

An example of courses developed and available for the public include Mindfulness Self-Compassion (MSC) Program. The initial study found that participants who attended the eight-week workshop reported greater self-compassion, mindfulness, and well-being (Delaney, 2018). The delivery structure suggest is a weekly meeting for eight consecutive weeks aimed at teaching individuals to understand and practice self-compassion by themselves at home. This program utilizes the three mentioned techniques. Another pilot study of the eight-week MSC program found similar benefits. Participants showed an increase in self-compassion levels and compassion for others (Finlay-Jones et al., 2018).

To illustrate the structure of the program, we outline the adaptation of MSC, which is for the younger individuals— Making Friends with Yourself (MFY). This