

**THE EFFECT OF COGNITIVE BEHAVIORAL
THERAPY PSYCHOEDUCATION MODULE IN
REDUCING BODY IMAGE DISSATISFACTION
AMONG COLLEGE STUDENTS IN CHINA**

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REDUCING BODY IMAGE DISSATISFACTION
AMONG COLLEGE STUDENTS IN CHINA**

by

HONG WUMAN

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**KESAN MODUL PSIKOPENDIDIKAN TERAPI KOGNITIF TINGKAH
LAKU DALAM MENGURANGKAN KETIDAKPUASAN IMEJ BADAN
DALAM KALANGAN PELAJAR KOLEJ DI CHINA**

ABSTRAK

Ketidakpuasan imej badan merujuk kepada proses pemikiran dan sikap negatif terhadap bentuk badan dan ciri fizikal seseorang, serta emosi dan perasaan negatif yang timbul atas dasar itu. Ketidakpuasan terhadap imej badan telah diiktiraf sebagai isu kesihatan awam; walau bagaimanapun, terdapat kekurangan penyelidikan yang dilakukan dalam kalangan populasi pelajar kolej di China. Ketidakpuasan imej badan memberi kesan negatif terhadap kesihatan mental dan sering dikaitkan dengan harga diri, kemurungan dan kebimbangan. Kajian ini bertujuan untuk mengkaji tahap ketidakpuasan imej badan, harga diri, kemurungan, dan kebimbangan dalam kalangan pelajar kolej di China; untuk menganalisis perbezaan jantina dalam pemboleh ubah ini dan hubungan mereka dalam kumpulan dengan ketidakpuasan imej badan; dan untuk membangunkan modul psikopendidikan berdasarkan terapi Kognitif-Tingkah laku yang digabungkan dengan teori pembelajaran lain (Teori Pembelajaran Tingkah Laku, Teori Pembelajaran Kognitif dan Teori Pembelajaran Kemanusiaan) bagi mengurangkan kadar ketidakpuasan imej badan dalam kalangan pelajar kolej di China. Modul ini direka bentuk untuk konteks pendidikan tinggi di China dan telah dibangunkan berdasarkan adaptasi daripada Buku Kerja Imej Badan: Program lapan langkah untuk ‘Belajar Suka Penampilan Anda’. Peserta dalam kajian ini adalah 384

pelajar kolej di Wilayah Guangdong, China. Keputusan menunjukkan bahawa 46.35% pelajar kolej melaporkan ketidakpuasan imej badan, 38.80% mempunyai tahap harga diri rendah yang berbeza-beza, 52.08% mempunyai tahap kemurungan yang berbeza-beza, dan 43.75% mempunyai tahap kebimbangan yang berbeza-beza. Dalam kalangan peserta yang mengalami ketidakpuasan terhadap imej badan, tiada perbezaan jantina yang ketara ditemui merentas pembolehubah ini ($p > .05$). Tambahan pula, kepuasan imej badan menunjukkan hubungan yang positif dengan harga diri ($\rho = .51$), dan hubungan negatif dengan kemurungan ($\rho = -.55$) serta kebimbangan ($\rho = -.52$). Modul yang dibangunkan menunjukkan kebolehpercayaan dan kesahan yang baik dalam kajian rintis. Seramai 35 peserta terlibat dalam intervensi, perbezaan antara ketidakpuasan imej badan adalah signifikan antara ujian pra dan pasca ($p < .001$), berbeza secara signifikan antara ujian pra dan ujian susulan ($p < .001$), dan tiada perbezaan secara signifikan antara ujian pasca dan ujian susulan ($p = .25$). Selain itu, kepuasan mereka terhadap imej badan menunjukkan aliran menaik, menandakan bahawa modul adalah berkesan. Penemuan kajian ini mengisi jurang dalam penyelidikan di China dalam bidang ini, menawarkan kaedah yang berkesan untuk mengurangkan ketidakpuasan imej badan dalam kalangan pelajar kolej di China, dan memberikan sokongan teori untuk pembangunan intervensi psikologi yang berkesan.

**THE EFFECT OF COGNITIVE BEHAVIORAL THERAPY
PSYCHOEDUCATION MODULE IN REDUCING BODY IMAGE
DISSATISFACTION AMONG COLLEGE STUDENTS IN CHINA**

ABSTRACT

Body image dissatisfaction refers to negative cognition and attitudes toward one's body shape and physical characteristics, as well as the negative emotions and feelings arise on that basis. It has been recognized as a public health issue; however, there is a lack of relevant research in China, particularly in the college population. Body image dissatisfaction has a negative impact on mental health and is often linked to self-esteem, depression and anxiety. This study aimed to investigate the levels of body image dissatisfaction, self-esteem, depression, and anxiety among Chinese college students; to analyze gender differences in these variables and their relationships in groups with body image dissatisfaction; and to develop a psychoeducational module based on cognitive-behavioral therapy combined with other learning theories (Behaviorist Learning Theory, Cognitive Learning Theory and Humanistic Learning Theory) to reduce body image dissatisfaction among Chinese college students. The module is designed for the Chinese higher education context and has been developed based on an adaptation of The Body Image Workbook: An 8-step Program for Learning to Like Your Looks. Participants in this study included 384 students from colleges in Guangdong Province, China. The results showed that 46.35% of college students reported body image dissatisfaction, 38.80% had varying degrees of low self-esteem,

52.08% had varying degrees of depression, and 43.75% had varying degrees of anxiety. Among participants with body image dissatisfaction, no significant gender differences were found across these variables ($p > .05$). Furthermore, body image satisfaction was positively correlated with self-esteem ($\rho = .51$), and negatively correlated with depression ($\rho = -.55$) and anxiety ($\rho = -.52$). The developed module showed good reliability and validity in the pilot study. 35 participants were involved in the intervention experiment, their body image dissatisfaction was significantly different between pretest and posttest ($p < .001$), significantly different between pretest and follow up test ($p < .001$), and not significantly different between posttest and follow up test ($p = .25$). Moreover, their satisfaction with body image showed an upward trend, indicating that the module was effective. The findings of this study fill a gap in Chinese research in this area, offer an effective method for reducing body image dissatisfaction among Chinese college students, and provide theoretical support for the development of effective psychological interventions.

CHAPTER 1

INTRODUCTION

1.1 Introduction

Body image is defined as perceptions and attitudes towards one's body, it involves both positive body image and negative body image (Grogan, 2021). Positive body image is not the same as satisfaction with the body; it emphasizes respect and love for the body, but also manifests itself in the individual's ability to reject or reframe negative messages related to the body (Tylka & Wood-Barcalow, 2015). Negative body image points to body image dissatisfaction (Grogan, 2021), it is a negative subjective evaluation of one's physical body such as figure, weight, stomach, and hips (Troisi, 2020), it is also known as body image disturbance and negative physical self (Li & Liu, 2018).

Body image dissatisfaction exists at all ages for both genders from different cultural backgrounds (Gillen, 2015; Hicks et al., 2022) and is thought negatively related to self-esteem and subjective well-being and positively related to unpleasant subjective experiences (Wang et al., 2018; Al-Musharaf et al., 2022). All over the world, the problem of body image dissatisfaction has received a lot of attention. Self-esteem, negative emotions, physical and mental health related to body image are central to scholars' focus, but the research has limitations of relying on previous studies and lack of focus on specific groups (Tiwari & Kumar, 2015). In China, studies on body image dissatisfaction have largely begun in 2000 (Chen, 2016) and have not been widely studied. According to China Youth Daily in 2021, body image dissatisfaction

presents a certain degree of age structure stratification, which is particularly prominent in Chinese college population.

On the basis of the negative outcomes of body image dissatisfaction and the lack of research on specific groups (Tiwari & Kumar, 2015) as well as the fact that it has not yet received much attention in China, thus, focusing on the body image of the Chinese college students seems to be practical importance.

This chapter first gives a brief overview of the recent research findings of body image dissatisfaction, discusses the statement of problem, introduces the research objectives, questions and hypotheses, constructs the conceptual framework and explains the expected relationships between the variables.

1.2 Background of the Study

Body image was first proposed by German writer Schilder in his book *The Image and Appearance of the Human Body* in 1935. From 1900 to 1990, research in this field focused on neurology. After the 1980s, the research on body image had undergone a major change, that was, the object of study was no longer limited to young women. Meanwhile, the magazine *Body Image*, which was first published in 2004, proved the importance of this research area. At the beginning of the 21st century, the research in this field ushered in a major turning point, that was, the development of the research on positive body image (Grogan, 2021). According to Andersen and Swami (2021), the studies in the past decade could be identified into five general themes: “clinical and weight-related issues, body image and disordered eating, positive body image and

objectification, media effects and ethnicity or race”, body image dissatisfaction is the most popular subtheme of “body image and disordered eating”.

Issues related to body image dissatisfaction are pervasive globally (Rodgers et al., 2023). Through a survey of 26 countries from the Americas, Europe, Oceania, Africa and Asia (with Asia including Malaysia, China, Singapore, Indonesia, Philippines and South Korea), it was found that body image dissatisfaction is prevalent despite cultural differences (Swami et al., 2010), and this trend continues to this day (Abdoli et al., 2024). In contrast, among the age groups studied, young people (adolescents and early adulthood) are the group of greatest concern to scholars (Grogan, 2021). Research of body image dissatisfaction on young people can be approached from two perspectives.

The first perspective sees body image dissatisfaction as a negative perception of one's body (Heider et al., 2018). Under the Tripartite Influence model, family, peers and social media are identified as the three key factors influencing body image (Rodgers et al., 2015). In the family, paternal relationships may drive youth body image dissatisfaction. According to Gonçalves et al. (2020), poor intimacy and an unhealthy upbringing can lead to more severe body image dissatisfaction and even eating disorders. Adolescents with more positive relationships with their parents had higher body satisfaction and the relationship was protective of body image (De Vries et al., 2019; Akbar et al., 2022). Childhood family conflict and dysfunction were negatively associated with personal self-esteem, and personal self-esteem levels were negatively associated with body image satisfaction (Zuo et al., 2023). As for peers, a review of a 15-year study noted that peer interactions communicate cognitive and

behavioral associations with body image back to each other (Webb & Zimmer-Gembeck, 2014). Cui et al. (2021) believed that due to the expansion of interpersonal communication, the establishment of college students' personal image is imminent, and good appearance can form a good first impression. Besides, messages that come from peers may contribute to a strong drive for body image dissatisfaction, such as fat-talk, peer comparison (Pedalino & Camerini, 2022). Yeung et al. (2021) found that muscle contrast between peers is one of the main sources of influence on male body image dissatisfaction. Scholars have also made a number of points about social media influence. Boys with high muscular-ideal internalization, greater social media use is associated with greater body dissatisfaction (Vuong et al., 2021). Duan et al. (2018) suggested that appearance comments mediate the effect of body image satisfaction among Chinese female college students. Similar findings are reflected in the study of Scully et al. (2020), namely, the correlation between negative body image judgments and appearance-related behaviors among teenage girls online can be explained by their frequent participation in social comparisons. Results from 184 Australian revealed that photo editing and investment on social media were linked to higher levels of body image dissatisfaction in both genders (Lonergan et al., 2019). According to Castellanos Silva and Steins (2023), participants exposed to more pictures showing perfect images reported more dissatisfaction.

The second perspective views body image dissatisfaction as an independent variable that leads to behavioral changes or mental health problems or even psychological disorders. According to Chang et al. (2019), Singaporean adolescent

girls' selfie behavior in Instagram is negatively correlated with self-esteem levels. In Malaysia, a study of undergraduates found that body image dissatisfaction may trigger unhealthy eating behaviors, especially in the female population (Kamaria et al., 2016). A study among 1501 adolescents from Barcelona area shows that body image dissatisfaction leads to low frequency of physical activity on both genders and do not achieve the public health recommendation (Añez et al., 2018). A study about college students of Arabic origin suggested that 81% of the participants were dissatisfied with their body image, females tend to lose weight through dieting, while males tend to lose weight through exercise (Radwan et al., 2019). Furthermore, body image dissatisfaction is associated with heightened anxiety, depression, low self-esteem, reduced quality of life and risky health behavior including disordered eating (Griffiths et al., 2018; Al-Musharaf et al., 2022). According to Ochoa et al. (2019), in the youth population, higher levels of body image dissatisfaction are correlated with a greater risk of developing an eating disorder, and this risk is greater in young women. Romano et al. (2021) reported that body image dissatisfaction has an effect on eating disorders, including binge eating and weight control. Body image dissatisfaction was significantly associated with depression in a sample of Chinese adolescents (Chen et al., 2015). Hao et al. (2022) study took a sample of college students in southern China discovered that students with body image dissatisfaction had reduced physical activity and controlled eating behaviors.

Instead, in gender studies on body image dissatisfaction, scholars have argued that it is very prevalent among females (Wang et al., 2017), to date, the majority of

studies on body image dissatisfaction have centered on women, few studies are on male and gender comparisons (Quit kat et al., 2019). In general, males are more satisfied with body image than females (Guo & Chen, 2015), but it does not mean that men do not have problems with body image. Men also feeling social pressure about their appearance and are increasingly feeling body image dissatisfaction (Shi et al., 2017). For example, in Hicks et al. (2022) 's study, body image dissatisfaction was higher in men than in women. Body image dissatisfaction varies between men and women. Females will be more concerned about weight change and the pursuit of the thin ideal, on the contrary, the increase in body mass index received male preference (Vuong et al., 2021). Similar to Vuong et al. (2021) `s finding, McComb and Mills (2022) reported the thin ideal used to predict female body image dissatisfaction, and Watters and Higgins (2024) reported perfect muscle to predict male body image dissatisfaction.

In China, studies on body image dissatisfaction have largely begun in 2000 (Chen, 2016) and have not been widely studied, the target groups were mostly high school and college students, the study sample was mostly female, and there were more theoretical studies than intervention studies (Hao, 2016). Based on the available literature, studies among body image dissatisfaction of Chinese youth have commonalities with those in other countries. For instance, Ge (2019) suggested that negative parental evaluations of their children's body are an important factor in their children's construction of body image, and peer-to-peer fat-talk can have a harmful effect on body image, moreover, the "ideal thinness" promoted by mass media makes

students more prone to social comparison and thus easier to become dissatisfied with body image. Li and Liu (2018) discussed factors that lead to body image dissatisfaction from the perspective of the Mirror Self Theory, arguing that if individuals were constantly subjected to negative external evaluations, this would lead to the formation of negative "body schemas" within the individual, which would lead to a biased perception of body image. In physical activity, the more active a college student's body image is, the higher the activity level and reverse is true as well (Wen et al., 2021). Huang et al. (2022) believe that body image dissatisfaction is positively associated with social avoidance and social distress among college adults.

In order to reduce body image dissatisfaction, many interventions have been proposed by psychologists. Griffen et al. (2018) suggested that mirror exposure therapy (systematic and repetitive observation of self-image in the mirror under professional guidance) is a rationally designed psychotherapeutic intervention. Griffiths et al. (2018) believed that Acceptance and Commitment Therapy (ACT) teaches positive thinking skills and commitment to self-values to increase psychological flexibility, and the psychological flexibility may facilitate reduction in body image dissatisfaction. Guest et al. (2019) found that brief yoga can reduce body image dissatisfaction. As Kurz et al. (2022) mentioned, improving young people's media literacy is conducive to reduce body image dissatisfaction. Wilson et al. (2019) effectively reduced participants' (94 female college students in America) dieting behavior and increased acceptance of the body through two interactive group sessions, trained in cognitive behavior therapy, cognitive dissonance techniques. Liu and Zhu

(2022) suggested that cognitive dissonance interventions, adaptive responses, and self-compassion can be effective in reducing body image dissatisfaction. Campos Ontiveros et al. (2023) believed that participation in sports is good for body image satisfaction.

To summarize scholars' opinions, body image dissatisfaction is a global issue, present in all age groups and genders, with greatest prominence in the youth population. It leads to behavioral changes or mental health problems or even psychological disorders. If an individual cannot cope with body image dissatisfaction in a scientific way, it means that the negative effects from body image dissatisfaction will persist and may cause even more serious damage to physical and mental health.

1.3 Problem Statement

Currently, scholars generally support the view that the body image dissatisfaction presents a globalization and is particularly prevalent among young people. In China, this issue is also prevalent among youth. In 2021, China Youth Daily conducted a survey on body image satisfaction among 2,063 college students nationwide, and the results showed that only 24.73% of college students were satisfied with their body image, and 7.87% felt very satisfied. Among them, more men than women had severe appearance anxiety, 9.09% and 3.94% respectively, while 22.53% more women than men had moderate appearance anxiety. In 2023, a study by the Institute of Psychology, Chinese Academy of Sciences found levels of individual body image dissatisfaction peaked around the age of 20, and were higher in females than in males. Similar to the

study of Liu et al. (2023), it reported that Chinese adolescents aged 15-24, level of body image dissatisfaction was highest around age 20.

Body image dissatisfaction should not be overlooked as it can result in mental health issues and even evolve into mental disorders (buccaneers & Neumark-Sztainer, 2014; Thomas & Warren-Findlow, 2020). Self-esteem plays a central role in the mental health of young people, and individuals with body image dissatisfaction have less self-esteem (O'Dea, 2012). According to Mills et al. (2018), young women posted selfies on social media reported feeling more anxiety. A cross-sectional study on the influence of body image on self-esteem found that body image dissatisfaction can lead to low self-esteem (Gatti et al., 2014). Negative body image can bring negative emotional experiences to adolescents, manifesting as a rise in anxiety and depression (Shi et al., 2020). Barnes et al. (2020) reported that body image satisfaction is negatively correlated with anxiety and depression among healthy adult males (over 18 years). Borneol et al. (2021) highlighted body image dissatisfaction as a public health issue because body image dissatisfaction in adolescence predicts depressive episodes in adulthood. Based on a study among 425 college students in mainland China (Wang et al., 2018) suggested that body image dissatisfaction is linked to self-esteem, life satisfaction, and negative emotions, such as depression, anxiety, and stress, as well as loneliness. Body image comparisons (especially on social media) increase female college students' expectations of their self-image evaluations, creating cognitive biases that can lower self-esteem levels (Li & Xu, 2020). In addition, students' negative evaluations of body image can affect their performance in social situations, i.e., anxiety,

fearfulness and even make avoidance behavior due to fear of negative evaluations from others. People who are satisfied with their body image would feel less depressed and have higher levels of self-esteem in both genders (Gillen, 2015). Among the consequences of body image dissatisfaction, the top three results of concern in the research of self-esteem, depression and anxiety.

Body image dissatisfaction brings a number of adverse influences on an individual's mental health, and through the literature, self-esteem, depression, and anxiety are frequently mentioned. Self-esteem is an important determinant of mental health; people with high self-esteem have better emotional experiences and fewer negative emotions, and they are able to self-regulate more effectively when dealing with negative life events or challenges (Abdel-Khalek, 2016). High self-esteem has a protective effect on individuals, allowing them to recover more quickly from negative life events such as stress or failure, thus reducing negative experiences and harm (Zeigler-Hill, 2013). Cognitive biases can trigger depression, and deficits in the control of cognitive biases can further trigger maladaptation and ultimately exacerbate or maintain depression (Lemuel & Gotlib, 2019). Body image dissatisfaction, as a type of cognitive bias, can also be oriented toward depression (Hosseini & Paddy, 2019). Anxiety usually coexists with depression (Tiller, 2013), individuals assess external events, and when a perceived threat is present, the related cognition is activated, creating anxiety, which in turn triggers protective behaviors such as avoidance (Rachman & Rachman, 2013). As self-esteem, depression and anxiety play an important role in mental health and are strongly associated with body image

dissatisfaction, this study will explore body image dissatisfaction from these three aspects.

In China, studies related to college students' body image dissatisfaction mostly point to lifestyle, exercise intensity, and eating disorders (e.g. Hao et al., 2023; Yaqoob et al., 2022; Shang et al., 2021), with a few studies discussing the relationship with self-efficacy, self-esteem or social media, etc. (e.g. Wang et al., 2025; Liao et al., 2023). Thus, it is not known whether the effects of body image dissatisfaction on self-esteem, depression, and anxiety are generalizable to the Chinese college population. In addition, similar to other studies, research on Chinese college students' body image has paid less attention to males or gender differences, although it is suggested that body image dissatisfaction among males is also on the rise (Liu et al., 2023), so exploring the gender dimension also seems necessary. This could not only fill the lack of research on body image dissatisfaction by gender, but also provide supporting evidence for the generalizability of the relationship between body image dissatisfaction and self-esteem, depression, and anxiety.

Based on the prevalence of body image dissatisfaction in the youth population and the negative effects it may lead to, intervention on this issue is necessary. There are a number of body image dissatisfaction reduction strategies, and based on the literature, interventions with a high level of concern were screened, that will be discussed below:

Cognitive Behavioral Therapy (CBT) is a time-sensitive intervention technique to change undesirable cognitions by changing thinking and behavior to achieve the

elimination of undesirable emotions or behaviors (Wenzel, 2017). Furthermore, as the development of the CBT approach, Acceptance and Commitment Therapy (ACT), Dialectical Behavioral Therapy (DBT) and mindfulness have become increasingly popular formats of intervention over the past decade (Lewis-Smith et al., 2019). The aim of ACT is to teach the techniques to overcome painful thoughts, and gain meaningful insight into what truly matters to individual via six core processes (Griffiths et al., 2018). ACT is widely used to improve dietary disorders (Lewis-Smith et al., 2019), but studies on body image dissatisfaction are only mentioned in two review articles by Lewis-Smith et al. (2019) and Griffiths et al. (2018), that was Weinel and et al. 's study in 2012 on bariatric surgery patients. Similarly, since DBT was originally designed to treat suicidal, self-harming individuals with borderline personality disorder (Ben-Porath et al., 2020), a compilation of the literature also found that research on DBT in the area of body image has focused on eating disorders. As for mindfulness, there are more populations studied because it can be combined with other interventions or permeate the activity. For instances, balconing et al. (2021) carried out the study with 110 Lithuanian female college students, through five sessions of cognitive behavioral therapy classroom education and weekly positive thinking exercises for the intervention group, the results reported a significant decrease in body image dissatisfaction in the intervention group.

Expressive Writing, a writing exercise developed by Pennebaker (Pennebaker & Chung, 2007), writing can force people to reevaluate their own state of being and thus change perceptions. Through a weekly 20-minute (three consecutive weeks) writing

intervention experiment among 152 female college students, self-compassion writing, traditional expressive and control three online-writing requirements would be randomly distributed to participants, Ziemer et al. (2019) verifies that self-compassion writing could protect against negative body image. By asking the participants (261 British women, aged 18-30) to finish three writing exercises, describe the two aspects of the body and consider their meaning for the individual in each exercise, Alleva et al. (2018) found that this strategy promotes the advancement of female body image.

Mirror exposure therapy is systematic and repetitive observation of self-image in the mirror under professional guidance, revisiting the thoughts and feelings at the time of observation, and adjusting cognition through discussion, etc. (Griffen et al., 2018; Tanck et al., 2021). In one study among 73 healthy females, the size of the mirror was set at 1.2*0.9m in order to allow participants to observe themselves in all directions, and the participants' negative affect and body image satisfaction were assessed before and after each experiment through three experiments (self-observation and conversation) for a total of about 5 hours, the results showed that participants had reduced negative effects and increased body satisfaction (Tanck et al., 2021).

Mobile-based intervention is the intervention through existing or development of specialized mobile applications for body image dissatisfaction. Bodymoor (mobile-application) was evaluated among 274 adolescents by Rodgers et al. (2018), by comparing the data at baseline, 6th week and 12th week, proved that it is a cost-effective mobile-application to reduce body image dissatisfaction. Bodymoor was designed around three active components: sending two intervention messages with the content

of self-compassion, media literacy, healthy lifestyle-related per day, mood tracking and emotional regulation, gratitude journaling. Cereal et al. (2021) proved that training 3 minutes a day for 16 days with a mobile application (mobile-application cognitive training, named GGBI) possibly resulting in reductions of body image dissatisfaction among college women.

Physical activity interventions, that is, body image dissatisfaction is improved through physical activity or competition involving skill and physical exertion (Sabiston et al., 2019). Through 12 weeks of yoga classes (twice a week), Ariel-Donges et al. (2019) demonstrated that the U.S. college-aged women in the experimental group improved greatly in both appearance evaluation and body image satisfaction through the pre and post test data of the experimental group and control group. Internationally, scholars focus on how physical activity improves body image (Sabiston et al., 2019), research showed that physical activities such as yoga and dance can increase positive body image (Liu & Zhou, 2022).

Classroom-based intervention is delivered in a traditional classroom setting (Kuzina & Exline, 2019). Dunstan et al. (2017) designed a 6-session intervention course (Happy Be Me Co-schooled) for body image dissatisfaction, focused on physical dissatisfaction, slimming ideals, appearance comparison, self-esteem and peer contexts with 200 adolescent girls in Melbourne, Australia as experimental subjects, and demonstrated that the program was effective in reducing body image dissatisfaction. In addition, Torres's (2021) study demonstrated that teacher-led classroom education is effective in reducing body image dissatisfaction and that it is a

low-cost, diffusive intervention model.

These interventions provide important support for reducing body image dissatisfaction and offer a variety of technical options for intervention. But linked to the new generation, it remains to be seen whether these interventions are fully applicable. In general, most of the strategy studies were conducted with female subjects, probably because body image dissatisfaction is prevalent in young women (Guest et al., 2019; Cereal et al., 2021), but the issue of Chinese college students' body image dissatisfaction is present in both sexes and is growing (Liu et al., 2023). Additionally, based on the prevalence of body image dissatisfaction among college groups and the trend of increasing numbers, it remains to be validated whether these interventions can be applied to large groups. Therefore, it is necessary to explore intervention approaches to body image dissatisfaction that are more appropriate for the current college population.

In the context of colleges, mental health interventions for students are most effective when presented in a psycho-educational format, and it reduces the cost of time to intervene with more students in a single session (Gerrity & DeLucia-Waack, 2006; Padmanabhan, 2022). Psychoeducation also has the advantage of providing a safe psychological environment, better conveying information and promoting positive regard and respect (Brown, 2018), it encompasses psychotherapy and education (Goldman, 1988). Regarding the psychotherapy of body image dissatisfaction, cognitive behavioral therapy is the most commonly used technique (Hosseini & Paddy, 2019) and is supported by strong empirical research (Hofmann et al., 2012). It is

effective for anxiety, depression and is considered to be cross-culturally adaptable (Silveus et al., 2023). Sun et al. (2018) believed that college students are a well-educated group with a certain ability to think logically, reflect and be aware, which meets the requirements of cognitive behavioral therapy for intervention targets. Therefore, this study used cognitive behavioral therapy as the theoretical basis for the intervention design.

In 2018, Ministry of Education of China issued the Guideline of Psychological Health Education for students in Higher Education, described the objectives, principles and tasks of psychoeducation in colleges. It was required that psychoeducation courses should be compulsory and be a combination of developmental and preventive, strengthening the popularization and dissemination of mental health knowledge while developing positive mental attributes and paying attention to the timely relief of psychological problems, so as to prevent and reduce the occurrence of serious psychological crisis cases to the maximum extent. According to the content of the textbooks, through case studies, experiential activities, behavior training and other forms, stimulate college students' interest in learning and improve the teaching effect.

To better match the context of psychoeducation in China and the college student population, this study used an adaptation-based module development to explore effective interventions to reduce college students' body image dissatisfaction. Adapting existing modules saves development time and is a rational use of educational resources (Penuel & Gallagher, 2017), and the fact that mature modules often have empirical research to support their effectiveness provides a reliable guarantee of

intervention (Slavin, 2020). Among the numerous interventions based on cognitive behavioral therapy, *The Body Image Workbook: An 8-step Program for Learning to Like Your Looks*, has been developed over four generations to be a proven and effective intervention guide and applicable to both genders at all ages (Cash, 2002). Therefore, the development of the module to be based on an adaptation of it.

This study is rooted in the mismatch between reality and existing research. Although body image dissatisfaction has traditionally been conceptualized as a predominantly female issue, an increasing number of studies have highlighted that male populations, particularly within college settings are also significantly affected. In the Chinese context, research on this topic is relatively nascent, and studies focusing on male college students remain notably scarce. As a result, existing literature reveals a pronounced gender imbalance and limited understanding of how body image dissatisfaction manifests across genders or interacts with variables such as self-esteem, depression, and anxiety. Furthermore, most intervention programs have been developed based on female samples, raising concerns about their applicability to male students.

Most psychoeducational interventions to date have primarily emphasized outcome efficacy, often through pre- and post-test designs, while paying insufficient attention to the interpersonal dynamics between implementers and participants, or among the participants themselves. In college settings, these relationships, particularly between teachers and students or among peers may significantly influence intervention effectiveness (Padmanabhan, 2022; Shen et al., 2022). While cognitive-behavioral

therapy has been widely validated as an effective treatment across cultural contexts (Wampold et al., 2017), its specific applicability to Chinese college students struggling with body image dissatisfaction has not been empirically established. Moreover, there is limited research on how cognitive-behavioral therapy might be adapted or integrated with other theories to enhance its cultural relevance and implementation feasibility in educational settings.

Methodologically, existing studies have largely relied on either quantitative or qualitative designs, with few employing mixed methods. This limitation restricts the ability to fully assess the effectiveness of interventions and understand the mechanisms underlying change. A mixed-methods design, which integrates the strengths of both qualitative and quantitative research (Creswell & Creswell, 2017), provides a more comprehensive framework for data interpretation and allows for a deeper understanding of contextual factors influencing outcomes. Consequently, this study intends to fill these gaps by focusing on male and female college students within the context of Chinese higher education, employing a mixed-methods design in either a pilot study or an intervention experiment. It further seeks to explore culturally adapted and practically feasible intervention strategies for body image dissatisfaction by integrating cognitive-behavioral techniques with other theoretical approaches.

1.4 Research Objectives

The main research objectives (RO) in this study are as follow:

RO1: To examine the level of body image dissatisfaction, self-esteem, depression

and anxiety among Chinese college students.

RO2: To compare the difference in body image dissatisfaction, self-esteem, depression and anxiety between male and female among Chinese college students who have body image dissatisfaction.

RO3: To examine the relationship between body image dissatisfaction, self-esteem, depression and anxiety among Chinese college students who have body image dissatisfaction.

RO4: To develop the psychoeducation module on the basis of an adaptation of *The Body Image Workbook: An Eight-step Program for Learning to Like Your Looks* (Cash, 2008) for the reduction of body image dissatisfaction among Chinese college students who have body image dissatisfaction.

RO5: To investigate the effect of the psychoeducation module in reducing body image dissatisfaction among Chinese college students who have body image dissatisfaction.

1.5 Research Questions

The research questions (RQ) in this study are as follows:

RQ1: What is the level of body image dissatisfaction, self-esteem, depression and anxiety among Chinese college students?

RQ2: What is the difference in body image dissatisfaction, self-esteem, depression and anxiety between male and female Chinese college students who have body image dissatisfaction?

RQ3: What is the relationship between body image dissatisfaction, self-esteem, depression and anxiety among Chinese college students who have body image dissatisfaction?

RQ4: What are the contents of the psychoeducation module for the reduction of body image dissatisfaction among Chinese college students who have body image dissatisfaction?

RQ5: Is there an effect of the psychoeducation module in reducing body image dissatisfaction among Chinese college students who have body image dissatisfaction?

1.6 Research Hypotheses

The following are the hypotheses corresponding to RQ2, RQ3 and RQ5:

H₀1: H₀1a: There is no gender difference in body image dissatisfaction among Chinese college students who have body image dissatisfaction.

H₀1b: There is no gender difference in self-esteem among Chinese college students who have body image dissatisfaction.

H₀1c: There is no gender difference in depression among Chinese college students who have body image dissatisfaction.

H₀1d: There is no gender difference in anxiety among Chinese college students who have body image dissatisfaction.

H₀2: H₀2a: There is no significant correlation between body image dissatisfaction and self-esteem among Chinese college students who have body image dissatisfaction.

H₀2b: There is no significant correlation between body image dissatisfaction and

depression among Chinese college students who have body image dissatisfaction.

H_{02c}: There is no significant correlation between body image dissatisfaction and anxiety among Chinese college students who have body image dissatisfaction.

H₀₃: There is no significant effect of the psychoeducation module in reducing body image dissatisfaction among Chinese college students who have body image dissatisfaction.

1.7 Significance of the Study

The body image dissatisfaction issue cannot be ignored and has research value. Theoretically, existing research findings backing up the idea that body image dissatisfaction is becoming more and more prevalent. In reality, it is also observed that the behavioral manifestations of students' dissatisfaction with body image are becoming more and more common, for example, girls must wear masks in public if they do not have makeup to serve as a cover, and boys choose to wear hats when they go out without hair styling, and, body image dissatisfaction will have a negative impact on students' social interaction, mental health, personality, academic performance etc.

On one hand, although the introduction of the concept of body image dates back to 1935 and has accumulated a wealth of research results to date, in China, research on this subject began in the last 30 years and has accumulated little research. On the other hand, the contradiction between the growing problem of college students' body image dissatisfaction in China and the lack of theoretical guidance used to solve this problem is bound to become more and more obvious, and therefore, this study has its research

value, including:

Theoretical value, this study complements and enriches the existing research results to a certain extent, especially for the research in the area of body image dissatisfaction in China, and helps to further promote the theoretical research. Furthermore, unlike the popular intervention methods mentioned above, this study did not select a particular psychotherapy, but rather an intervention study in a classroom setting.

Application value, this study bases on the current situation of college students' body image dissatisfaction in China, through the development of psychological education module with the goal of reducing body image dissatisfaction in the college community and testing its effectiveness, while proposing effective countermeasures, provides a reference in psychological education for decreasing body image dissatisfaction in the college community.

1.8 Definition of Terms

In order to explore the current situation of Chinese college students' body image and put forward educational countermeasures, this research consisted of some variables and participant inclusion or exclusion criteria that require defining. They are defined below.

1.8.1 Conceptual Definitions

In this study, clearly defining core concepts is fundamental to establishing the

theoretical framework. Conceptual definitions aim to clarify the theoretical meanings and scope of key terms used in this research. By providing precise definitions of these concepts, this section will lay the groundwork for subsequent analysis and discussion.

Body image dissatisfaction

According to Grogan (2021), body image dissatisfaction is the negative perception and attitude about his or her body. Individuals have low cognitive ratings of their physical characteristics and functioning, accompanied by negative emotional experiences and negative psychological outcomes, such as low self-esteem and anxiety (Shi & Wu, 2022). In Quittkat et al. (2019)'s study, body image dissatisfaction is the negative cognitive assessment of oneself body.

Self-esteem

“Self-esteem reflects a person’s physical self-image, view of his or her accomplishments and capabilities, and values and perceived success in living up to them, as well as the ways in which others view and respond to that person” (APA Dictionary of Psychology). Self-esteem is a physical sense of self-worth based on physical condition, weight and appeal (Smith, 2019). Self-esteem is an individual's positive or negative attitude resulting from self-evaluation (Hu & Fu, 2022). Self-esteem, a self-derived evaluation related to comparison with others (Moffitt et al., 2018) and a bidirectional predictive effect with the level of body image satisfaction (Santarossa & Woodruff, 2017).

Depression

Depression is a sad, unhappy, and irritable state of mind that refers to an

individual's emotional response to environmental and internal stimuli (Nie & Wang, 2015). In APA dictionary of psychology, there are two meanings of depression, one refers to depressive disorder, while this study uses the second meaning, which refers to a negative emotional state, ranging from unhappiness and discontent to an extreme feeling of sadness, pessimism, and despondency. Depression is an emotion that is reflected in the individual's feeling of having numerous insurmountable difficulties, unhappiness, loss of expectations (Blomfield naira & Barber, 2014).

Anxiety

Anxiety related to body image belongs to the category of social physique anxiety, which refers to the anxiety of individuals' lack of self-confidence due to the fear of others' negative evaluation of their physique (Xu & Zheng, 2022). Anxiety is an emotion of apprehension and tension, a long-term reaction oriented toward the future (APA dictionary of psychology). Anxiety, as distinguished from fear (fear is caused by a specific object or target), is a vague fear of an unknown source (Levitt, 2015).

College students

College students refer to those who are enrolled in a higher education institution and is receiving higher education (including universities and colleges) but has not yet received any degree (Modern Chinese Dictionary, n.d.). College students are generally younger students who have completed high school and then entered college and are dependent on their guardians for financial support (Pirelli et al., 2015). In a study on the Body Appreciation Scale, the mean age of participants (college students) was 19.91, ranging from 18-39 years (Tylka, 2013). In a study of body image attitudes among