Body image satisfaction and self-esteem in Thai female adolescents: the moderating role of self-compassion

Abstract

Aim: Body image satisfaction significantly influences self-esteem in female adolescents. Increased reports of lowered satisfaction in this population have raised concerns regarding their compromised self-esteem. This research study, therefore, sought to identify a culturally significant moderator of the association between body image satisfaction and self-esteem in Thai female adolescents. Orientation toward self-compassion, found to be particularly high in Thailand, was examined.

Materials and methods: A total of 302 Thai female undergraduates from three large public and private universities in the Bangkok metropolitan area responded to a set of questionnaires, which measured demographic information, body image satisfaction, self-compassion, and self-esteem. Data were analyzed using correlation and multiple regression analyses. Self-compassion was tested as a moderator of the relationship between body image satisfaction and self-esteem.

Results: Although its effect was relatively small, self-compassion significantly moderated the positive relationship between body image satisfaction and self-esteem. The relationship became less stringent for those with high self-compassion.

Discussion: The cultivation of self-compassion was recommended in female adolescents. In addition to moderating the association between body image satisfaction and self-esteem, the benefits to health and well-being of generalizing this cultivation are discussed.

Keywords: body image satisfaction; female adolescents; self-compassion; self-esteem.

Introduction

Body image, a subjective evaluation of one’s physical appearance (1), plays a crucial role in adolescents’ personality and social development (2). Especially for female adolescents, the evaluation becomes a key factor in the process, through which they establish their places in the social world (3). Based on objectification theory (4), to become a worthwhile female, adolescents in many cultures are expected to achieve an ideal body image of being thin and attractive. This expectation can become so powerful that female adolescents become objectified (i.e., they are viewed as objects whose worth is based on their physical exterior, rather than their internal qualities) (4). A significant portion of female adolescents internalize this message and, therefore, strive to obtain the thin ideal (5). They become critical of their physical appearance and constantly strive for improvement. The striving can become so vehement that some female adolescents disregard their physical needs and engage in health-debilitating behaviors, such as extreme dieting or compensatory behaviors, including overexercising, purging, or using diuretics or laxatives to compensate for calorie intake (6).

Interestingly, neither efforts to attain the ideal body image nor success in doing so necessarily guarantee that female adolescents will feel satisfied with their body image (7). Additionally, constant scrutiny of personal physical appearance has been shown to lead these adolescents to notice more physical flaws and become less satisfied with their body image (8). Similarly, advances in methods of aesthetic enhancement appear to constantly raise standards for body image ideals. In fact, maintaining body image satisfaction remains a challenging task even for those who achieve the ideal. Consequently, body image satisfaction has been reported to be low in female adolescents (9). Indeed, body image dissatisfaction is so common among these adolescents that it is considered “normative discontent” (9).

Body image satisfaction has been shown to influence the manner by which female adolescents evaluate their self-worth, and is considered a source of their self-esteem.
Therefore, when the satisfaction becomes compromised, self-esteem is likely to be affected as well. A number of debilitating outcomes could then be anticipated. Self-esteem has been shown to be positively associated with physical (11) and psychological (12, 13) health. Adolescence is a period in which self-esteem fluctuates (2). With compromised body image satisfaction and its association with self-esteem, female adolescents are likely to be particularly vulnerable to having low self-esteem, along with its adverse outcomes (14).

Past studies have attempted to address the effects of compromised body image satisfaction on self-esteem; these attempts have primarily focused on enhancing either the former (15) or the latter (16). However, another promising avenue involves identifying factors that moderate the degree to which body image satisfaction is associated with self-esteem. Identification of such moderators can enable effective intervention. In turn, such intervention can reduce the degree to which female adolescents’ self-esteem is contingent on their body image satisfaction.

In the current study, self-compassion was examined as a moderator of the relationship between body image satisfaction and self-esteem. The construct was selected for two main reasons. First, the three core elements of self-compassion, namely, mindfulness, self-kindness and the perception of personal experience as common human experience (17), are likely to alleviate the association between body image satisfaction and self-esteem. For example, self-kindness should help female adolescents become more accepting of their physical flaws. Similarly, mindfulness should help ameliorate the adverse impact of these flaws by reducing undue identification with them (e.g., rumination). These characteristics, together with the perception that physical flaws are unavoidable and shared by everyone, should lessen the positive association between body image dissatisfaction and self-worth. In sum, self-compassion likely reduces the degree to which a female adolescent is affected by her body image satisfaction, and then use this satisfaction to evaluate herself.

The second rationale for the selection of self-compassion relates to its cultural significance. This significance is widely recognized and has led to several attempts to study self-compassion across cultures (18, 19). Since the initial attempt, a stronger orientation toward self-compassion has been demonstrated in Thailand than in the United States. Indeed, self-compassion was also endorsed more in Thailand than in Taiwan, another Asian collectivistic country, where an orientation toward interdependent self-construal was shared. Therefore, in addition to self-construal, or individuals’ views of themselves in relation to their social relationships (20), other cultural factors appear to help explain orientation toward self-compassion. Religious values and dialectical beliefs have been proposed as the explanations for such phenomenon (18).

The Thais are strongly influenced by Buddhism, its national religion. One of the Buddhist fundamental teachings is the concept of the “Middle Way”, which emphasizes the need for maintaining a proper balance in all aspects of living. Based on this emphasis, such extremities as laxness or strenuousness are not advocated. Living is not viewed as naturally entailing either end, but rather filled with both positivity and negativity. Flaws and imperfection are not unanticipated; rather, they are viewed with acceptance. Congruent to this Buddhist concept, Thai dialectical values emphasize the acceptance of imperfection. For instance, human beings are known as khon in Thai, meaning “the mixing process”, when used as a verb. This term has broad connotations in Thai culture. For example, human beings are viewed not as a final product but as a work in progress, where imperfection is anticipated (18).

The current study examined self-compassion given this cultural orientation in Thailand.

Therefore, self-compassion was tested as a moderator of the relationship between body image satisfaction and self-esteem. We hypothesize that for those with high self-compassion, the association between body image satisfaction and self-esteem should be weaker than for those with low self-compassion. This hypothesis implies that the association between body image satisfaction and self-esteem should be lessened, with self-compassion as a moderator. The significance of body image and health risks involved in female adolescents’ attempts to enhance their body image satisfaction are likely to be reduced as well.

**Materials and methods**

Prior to data collection, an Institutional Ethical Review Board approval was obtained.

**Participants and recruitment**

A total of 302 Thai female undergraduates participated in the current study. These participants came from three large public and private universities in the Bangkok metropolitan area. Their ages ranged from 18 to 23 years, with an average of 20.36 years (SD=1.25). Their body mass index (BMI) ranged from 14.57 to 30.86, with an average of 19.87 (SD=1.25). Their heights ranged from 150 cm to 170 cm, with an average of 161 cm (SD=5.7 cm). The current study examined self-compassion given this cultural orientation in Thailand.
Procedure

After class, each participant were asked to respond to a set of questionnaires capturing the variables examined for 10–15 min. These participants answered in groups.

Measures

All instruments administered were translated into Thai and then pilot tested. The instruments were used only after their psychometric properties were ascertained. These properties included discriminant validity and Cronbach's coefficient α. For discriminant validity, item scores between two groups of participants (i.e., low scorers whose scores were at the 27th percentile and below, and high scorers whose scores were at the 73th percentile and beyond) needed to be significantly different at the 0.05 level. As for the Cronbach's coefficient α, the internal consistency of each scale needed to be at least satisfactory (i.e., with an α estimate of at least 0.70). Information about the measures is given below.

Body image satisfaction was assessed using the Body Appreciation Scale (BAS) (22). Participants rated the extent, to which they agreed with 13 statements (e.g., “On the whole, I am satisfied with my body”) on a five-point scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). After relevant scoring reversal, the total BAS score was calculated, with the score for each item being summed and then averaged. A higher BAS score indicated higher body image satisfaction, whereas a lower score indicated lower satisfaction (Sample α=0.89, high internal consistency).

Self-esteem was assessed by Rosenberg's Self-esteem Scale (RSES) (23). Participants rated the extent to which they agreed with 10 statements (e.g., “I take a positive attitude toward myself”) on a five-point scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). After relevant scoring reversal, the total RSES score was calculated, with the score for each item being summed and then averaged. A higher RSES score indicated higher self-esteem, whereas a lower score indicated lower self-esteem (Sample α=0.83, high internal consistency).

Self-compassion was assessed by Neff’s Self-compassion Scale (24). Participants rated the frequency with which they engaged in behaviors described in 32 statements (e.g., “When I’m down and out, I remind myself that there are lots of other people in the world feeling like I am”), referring to a response format. After relevant scoring reversal, the total self-compassion score was calculated with the score for each item being summed and averaged. A higher self-compassion score indicated higher self-compassion whereas the lower score indicates lower self-compassion (Sample α=0.88, high internal consistency).

Data analysis

SPSS (Version 18) was used for data analysis. The analysis procedure started with the descriptive analysis, during which the distribution, mean, and standard deviation of scores for the variables studied were examined. The assumption of regression analyses [e.g., multicollinearity analysis through the examination of Tolerance and variance inflation factor (VIF)] was met (i.e., the value of Tolerance exceeded 0.10 and that of VIF was lower than 10) (25). After an intercorrelation analysis had been performed, multiple regression analyses were then conducted with self-esteem as the outcome variable and body image satisfaction and self-compassion as predicting variables. The interaction term of body image satisfaction and self-compassion, labeled body image satisfaction×self-compassion, was tested for its moderating effect.

Results

The examination of the intercorrelation of studied variables suggested that, as anticipated, both body image satisfaction and self-compassion were positively associated with self-esteem; the sizes of the association were moderate at 0.40 and 0.41, respectively (Table 1).

Subsequent multiple regression analyses indicated that the regression model where self-esteem was predicted by body image satisfaction, self-compassion, and their interaction was significant [F(3, 298)=35.48, p<0.001] (Table 2). The model accounted for 26% of the total variance in self-esteem.

All of the parameters examined (body image satisfaction, self-compassion, and their interaction) were found to significantly predict self-esteem. The direct effects of body image satisfaction and self-compassion remained significant even after their interaction term was entered. The magnitudes of the positive effects of body image satisfaction and self-compassion on self-esteem were moderate (i.e., βs=0.29 and 0.34, p<0.001, respectively) and approximately trice larger than the negative effect that their interaction terms (i.e., β=0.11, p<0.05) had on self-esteem. The effect size of the interaction term, as reflected in the squared semi-partial correlation, was minimal and accounted for approximately 1% of the variance in self-esteem.

The significant interaction between body image satisfaction and self-compassion suggested that the association between body image satisfaction and self-esteem differed based on the levels of self-compassion. A post-hoc analysis of simple regression slopes was conducted

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Descriptive statistics and intercorrelation of studied variables.</th>
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</thead>
<tbody>
<tr>
<td>Variable</td>
<td>M</td>
</tr>
<tr>
<td>1 Body satisfaction</td>
<td>3.81</td>
</tr>
<tr>
<td>2 Self-compassion</td>
<td>3.67</td>
</tr>
<tr>
<td>3 Self-esteem</td>
<td>3.23</td>
</tr>
</tbody>
</table>

*p<0.01, 2-tailed.
following the steps recommended by Holmbeck (26). Although body image satisfaction positively and significantly predicted self-esteem in participants with low and high self-compassion (i.e., those with the self-compassion scores 1 SD below and above the mean, respectively), the degree to which the satisfaction predicted self-esteem varied. The prediction was stronger in participants with low self-compassion (β = 0.39, p < 0.001) than in those with high self-compassion (β = 0.18, p < 0.05). The associations between body image satisfaction and self-esteem in these two groups of participants are depicted in Figure 1.

**Discussion**

This study investigated whether self-compassion, a construct particularly relevant to Thai religious and dialectical values, helped moderate the relationship between body image satisfaction and self-esteem in Thai female adolescents. Given reports of low body image satisfaction in this group of adolescents (9), this investigation is critical. If such a moderating effect was confirmed, measures to promote self-compassion can help alleviate the association between body image satisfaction and self-esteem.

Data collected from 302 Thai female undergraduates were analyzed using correlation and multiple regression analyses, with a test for a moderating effect of self-compassion. The findings demonstrated that body image satisfaction was positively associated with self-esteem. This association changed with the levels of self-compassion. However, it is important to note that the magnitude of the change was relatively small. Additionally, body image satisfaction and self-compassion still had moderate influences on self-esteem even after their interaction effect was controlled.

Findings from the current study help demonstrate the benefits of self-compassion in moderating the relationship between body image satisfaction and self-esteem in female adolescents. Whereas this moderating effect remains limited and open for further investigations, high self-compassion has been initially shown to help ameliorate the degree to which female adolescents self-esteem is associated with their satisfaction with their physical appearance. Self-compassion appears to help these adolescents to become more accepting of their physical flaws and view their imperfections as inevitable parts of human experience. Additionally, the sense of mindfulness entwined in self-compassion can reduce the negative reactions (e.g., rumination, self-blame) adolescents may exhibit toward these flaws. Overall, for the adolescents with high self-compassion, the association between their body image satisfaction and self-esteem is less stringent than in those with low self-compassion.

The finding regarding the moderating role of self-compassion is significant in various aspects. First, self-compassion can offer a buffering effect, which decreases the positive association between body image satisfaction and self-esteem, and alleviates the pressure that female adolescents experience in having to maintain a positive body image. The alleviation should also be anticipated in the risk that these adolescents would engage in health-debilitating behaviors (e.g., starvation, compensatory

### Table 2 Variables predicting self-esteem (enter, n=302).

<table>
<thead>
<tr>
<th>IV</th>
<th>B</th>
<th>SE</th>
<th>β</th>
<th>Squared part correlation</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.25</td>
<td>0.02</td>
<td></td>
<td>0.07</td>
<td>0.88</td>
<td>1.14</td>
</tr>
<tr>
<td>Body image satisfaction</td>
<td>0.20</td>
<td>0.04</td>
<td>0.29*</td>
<td>0.07</td>
<td>0.88</td>
<td>1.14</td>
</tr>
<tr>
<td>Self-compassion</td>
<td>0.30</td>
<td>0.05</td>
<td>0.34*</td>
<td>0.10</td>
<td>0.86</td>
<td>1.17</td>
</tr>
<tr>
<td>Body image satisfaction*</td>
<td>−0.15</td>
<td>0.07</td>
<td>−0.11*</td>
<td>0.01</td>
<td>0.95</td>
<td>1.11</td>
</tr>
</tbody>
</table>

Note: R²=0.26, F=35.48, *p<0.05, 2-tailed; †p<0.001, 2-tailed.

![Figure 1](self-esteem_as_predicted_by_body_image_satisfaction_in_participants_with_low_β_0.39_p_0.001_and_high_β_0.18_p_0.05_self-compassion.png)

**Figure 1** Self-esteem as predicted by body image satisfaction in participants with low (β = 0.39, p < 0.001) and high (β = 0.18, p < 0.05) self-compassion.
behavior for calorie intake) should they attempt to obtain the ideal body image.

Promoting self-compassion appears especially promising in Thailand, where religious and dialectical values have been reported to be particularly relevant to the construct. Such promotion should benefit from considering existing intervention techniques associated with therapeutic approach that address components of self-compassion. Such approaches include Dialectical Behavior Therapy (DBT) (27) and Acceptance and Commitment Therapy (ACT) (28). While each approach addresses the components of self-compassion to a different degree (i.e., DBT emphasizes mindfulness, while ACT also includes acceptance, which is relevant to self-kindness), such intervention techniques can be adapted to develop a treatment program that promotes self-compassion in a culturally appropriate way.

As shown by past success in enhancing qualities associated with self-compassion in DBT and ACT, cultivating self-compassion beyond the Thai cultural context has great potential. In addition to body image concerns, which are ubiquitous in adolescents across cultures, cultivation of self-compassion can also offer benefits in dealing with other adverse psychological constructs relevant to perceived imperfections and flaws. For example, self-compassion might be applied to moderate the association between perfectionism, low tolerance for distress, or experiential avoidance on psychological adjustment. Future studies should also help clarify the nature and benefits of self-compassion in cultures where it might be less emphasized religiously or dialectically. As shown in a recent study in a Dutch sample (19), the association between self-compassion and self-esteem appeared to be more stringent than that found in the current study (i.e., 0.68 vs. 0.41). The moderating role that self-compassion might exert in the association between body image satisfaction and self-esteem within the Dutch sample remains open for further investigations.

Despite various promises regarding the current findings, it is important to realize the limitations of the study when analyzing the findings. Like other survey studies, information obtained was volunteered by the participants, and concerns related to self-presentation and social desirability cannot be overlooked. Additionally, whereas the promise of self-compassion in ameliorating the influence of body image is examined empirically, as shown in the current study, the role of self-compassion remains limited and open for further investigations. Furthermore, the current investigation of the benefits of self-compassion was conducted via correlation and regression analyses. Its actual benefits would be best illustrated through an experimental study, in which the construct is actually manipulated. Future studies should benefit from this manipulation and an investigation of ways to introduce self-compassion in a culturally appropriate manner, with the goal of reducing the impact of body image on female adolescents’ physical and mental health.

References