



# Focus on the Beauty of Body: The Mediation Role of Body Appreciation Between Perfectionism and Body-Related Shame and Body-Related Guilt

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**Objectives:** According to traditional views, perfectionists are prone to experience shame and guilt. As a relative part of negative body image, body appreciation reflects an appreciation attitude toward physical characteristics, functionality, and health, accepting and appreciating all parts and functions of the body, predicting body-related shame and guilt.

**Methods:** Therefore, body appreciation was examined for its potential mediating role in the relationship between two dimensions of perfectionism (e.g., healthy perfectionism and unhealthy perfectionism) and body-related shame and body-related guilt among 514 females.

**Results:** The results highlight that body appreciation partially mediated the relationship between perfectionism and body-related shame and body-related guilt. Implications for enhancing body appreciation among females between experiencing healthy or unhealthy perfectionism and body-related shame and body-related guilt feelings are discussed.

**Conclusions:** These findings underscore the importance of considering body appreciation in addressing perfectionism dimensions and body-related shame and body-related guilt. Research and clinical implications are also addressed.

**Keywords:** body appreciation, healthy perfectionism, unhealthy perfectionism, body-related shame, body-related guilt

## INTRODUCTION

Women generally have a negative body image, low self-confidence, negative avoidance of thoughts, and constant dissatisfaction with their appearance and weight (Frederick et al., 2016), which result in negative appearance evaluations (Frederick et al., 2007; Fiske et al., 2014). Moreover, this dissatisfaction may lead to physical anxiety (Cash et al., 2004), excessive

exercise (White and Halliwell, 2010; Yager et al., 2017), unhealthy diet (Cash and Iii, 1997; Slevic and Tiggemann, 2011), and eating disorders (Stice and Shaw, 2002; Hoek and van Hoeken, 2003), which is not conducive to women's physical and mental development.

As two essential aspects of negative body image in women, body-related shame and body-related guilt have received growing research attention (Bessenoff and Snow, 2006; Mensinger et al., 2018). Body-related shame is a self-conscious emotion that negatively evaluates their *global* self (Tangney, 1998). Body-related guilt is a negative self-conscious emotion that occurs when an individual has a negative evaluation of his/her *behavior* (Tangney, 1998). Shame and guilt have been associated with depression (Brunet et al., 2019), anxiety (Hedman et al., 2013) in the general adult population. Although body-related shame and body-related guilt are self-conscious emotions that often co-occur, they have been differentiated in prior scholarship along cognitive, affective, and motivational dimensions (Lewis, 1971; Tangney, 1992).

Furthermore, there is no professional scale of body-related shame and body-related guilt in China as far as we know. Hence, the main goal of this study is to successfully find the potential predictors that can influence adult women's body-related shame and guilt, which could provide constructive suggestions to individuals who are dissatisfied with their body image in clinical consultation. Then, finally, we can promote a positive stance toward their body image.

## Perfectionism and Body-Related Shame and Body-Related Guilt

Hamachek (1978) conceptualized and operationalized perfectionism as multidimensional construct comprised of positive and negative dimensions. Positively, perfectionism is defined as a lifestyle that could reduce anxiety (Gol et al., 2013) or an accurate, comprehensive, correct, non-life-threatening solution to human problems (Fedewa et al., 2005). Negatively, perfectionism has been conceptualized as a pathology-causing personality trait (Frost et al., 1990; Hewitt and Flett, 1991) or an emotion with a lot of psychological barriers (Burns, 1980; Pacht, 1984).

In addition to the Hamachek's theory, Flett and Hewitt (2002) classified perfectionism as adaptive and maladaptive. Adaptive perfectionism is an achievable high standard of organization and planning, which can feel self-satisfaction and a sense of accomplishment after the completion of the plan (Enns and Cox, 2002; Franco-Paredes et al., 2005). In contrast, maladaptive perfectionism is an unrealistic standard that accompanies critical evaluation, such as questioning one's behavior, being overly concerned with mistakes, and attributing failure to mistakes (Boone et al., 2010). Frost et al. (1990) divided perfectionism into two aspects according to their own and their parents' requirements and subdivided it into six dimensions to develop the Frost Multi-dimensional Perfectionism Scale (FMPS). Based on this, Stumpf and Parker (2000) divided it into healthy perfectionism and unhealthy perfectionism, corresponding to normal and neurotic perfectionism according

to Hamachek's theory (Hamachek, 1978), respectively. And then, Hongfei (2007), a Chinese scholar, revised it and merged six dimensions into two dimensions under the Chinese cultural environment. In this study, the operational definition of perfectionism is adopted by Hongfei (2007), who supposed that perfectionism is the pursuit of no defects and the adoption of high standards for oneself, and divided perfectionism into two forms: healthy perfectionism (also named as adaptive perfectionists) and unhealthy perfectionism (also named as maladaptive perfectionists). Moreover, combined with the cluster analysis, we finally choose healthy perfectionism and unhealthy perfectionism.

As we know that when an individual perceives that his or her body is unwelcome, which could cause a negative emotion (Dalley et al., 2020). Based on the self-objectification theory, the internalization of feminine appearance ideals elicits body-related self-conscious emotions (i.e., body-related shame and body-related guilt, etc.), moreover increased emotional problems (Fredrickson and Roberts, 1997). A large body of research suggested a general link between perfectionism and body-related shame and guilt (Giancarlo et al., 2015; Piotrowski, 2019; Cella et al., 2020). Hamachek (1978) proposed that moderate perfectionism would have shame and guilt, while normal perfectionism might experience pride instead of shame and guilt. Fedewa et al. (2005) found a positive correlation between negative perfectionism and body-related shame and guilt. However, positive perfectionism is only negatively related to shame. Similarly, a study reported that both positive and negative perfectionists tend to feel guilty to varying degrees, and only negative perfectionists tend to feel more ashamed (Stoeber et al., 2007).

Cumulative evidence indicates that compared to unhealthy perfectionists, healthy perfectionists show higher levels of indicators of good adjustment (e.g., positive effect) and lower levels of indicators of maladjustment (e.g., negative effect; Stoeber and Otto, 2006). Consequently, it can be expected that healthy perfectionists experience more pride and less shame and guilt than unhealthy perfectionists, which will display the characteristics associated with the positive perfectionism but not those associated with the negative perfectionism. Specifically, perfectionism could be regarded as a compensation mechanism, which means people can apply this mechanism to deal with inferiority, inadequacy, and fear of rejection (Hewitt et al., 2003). In this line, Peterson (2003) suggested that presenting a perfect image and concealing perceived flaws and defects aim to avoid shame experiences and may emerge as a strategy to achieve acceptance and fit in the group. Hence, the association between different forms of perfectionism and body-related shame and guilt needs to be explored furtherly.

## Body Appreciation as a Mediator

As a relative part of negative body image, positive body image gradually became the focus of scholars' attention and was regarded as a method to improve negative body image (Wood-Barcalow et al., 2010; Webb et al., 2015). Positive body image is complete love and respect for the body, making people

appreciate their bodies' unique beauty and function, ignoring imperfections, internalizing positive information, and rejecting negative information (Wood-Barcalow et al., 2010). Considering that body appreciation is a part of a positive body image, reflecting an appreciation attitude toward physical characteristics, functionality, and health, which accepts and appreciates all parts and functions of the body (Avalos et al., 2005). However, fewer studies investigating potential mediators between perfectionism and body-related shame and body-related guilt emphasize the role of body appreciation.

The link between body perfectionism and body-related shame and body-related guilt has been understated. A study recruited 181 female college students from Midwest University and showed that body appreciation was negatively correlated with body-related shame, and body appreciation could significantly negatively predict body-related shame (Avalos et al., 2005). Pidgeon tested 70 female college students and divided them into religious, health, and control groups. Results showed that reducing body-related guilt and significantly improved body appreciation in the religious group (Pidgeon and Appleby, 2014). Studies recently demonstrated that the body image-related perfectionism plays a central role in the relationship between shame and eating pathology (Ferreira et al., 2015; Marta-Simões and Ferreira, 2016). More interesting, Iannantuono and Tylka (2012) found that perfectionism can significantly predict body appreciation, which maladaptive perfectionism can significantly negatively predict body appreciation, while adaptive perfectionism can significantly positively predict body appreciation.

In summary, body appreciation is a common underlying issue related to perfectionism, body-related shame, and body-related guilt. However, given the dimensionality of perfectionism, it is not clear how body appreciation and body-related shame, and body-related guilt relate to healthy and unhealthy perfectionism. Furthermore, it is unclear what role body appreciation plays in the link between perfectionism and body-related shame and body-related guilt.

## Aim of the Present Study

To sum up, the perfectionism literature (Avalos et al., 2005; Iannantuono and Tylka, 2012) suggests that perfectionism dimensions are linked directly or indirectly with body-related shame and body-related guilt *via* its association with body appreciation. However, previous studies have not been as body appreciation as predictors for studying body-related shame and body-related guilt. Therefore, we examined the mediating effects of body appreciation on the relationship between the perfectionism dimension (i.e., healthy perfectionism and unhealthy perfectionism) and body-related shame and body-related guilt.

## MATERIALS AND METHODS

### Participants

Ethical approval was gained from the first author's University Ethics Committee. The participants were 544 female students

recruited from Harbin, a city in China. All participants ranging in age from 18 to 30 ( $Mean = 21.58$ ,  $SD = 2.8$ ). Their major included Science (50.4%) and Art (49.6%). Additionally, 29.0% from rural areas and 71.0% from urban areas. Of them, 59.9% are undergraduates and 40.1% are master's students.

## Measures

### The Chinese Frost Multidimensional Perfectionism Scale

The Chinese Frost Multidimensional Perfectionism Scale (Fei and Xu, 2006) comprises 27 items answered on a 5-point Likert scale (1 = *Strongly disagree* to 5 = *Strongly agree*). The questionnaire assesses five factors: personal standards (PS), parental expectations (PE), doubts about actions (DA), concern over mistakes (CM), and organization (O).

According to Stumpf and Parker's (2000) research, the scale is divided into healthy perfectionism and unhealthy perfectionism. Healthy perfectionism included PS and O; unhealthy perfectionism included PE, DA, and CM. In the present study, the Cronbach alpha coefficients were 0.81 for healthy perfectionism and 0.81 for unhealthy perfectionism.

### The Body Appreciation Scale-2

The Body Appreciation Scale-2 (Tylka and Wood-Barcalow, 2015) comprises 10 items rated on a 5-point Likert scale format (1 = *Strongly disagree* to 5 = *Strongly agree*) and has been translated into Chinese (Swami et al., 2016). Item scores are averaged; higher scores imply greater body appreciation. The total BAS-2 scale with a Cronbach alpha coefficient of 0.84 was used in the present study.

### Body-Focused Shame and Guilt Scale

The Body-Focused Shame and Guilt Scale (Weingarden et al., 2016) is a self-report questionnaire designed to measure shame, guilt, or externalization of the blame with body dysmorphic disorder (BDD). The BF-SGS is a scenario-based measure modeled after the TOSCA, which consists of 13 scenarios. Participant scores are rated from 1 (Not likely) to 5 (Very likely), such that higher total scores indicate greater body-related shame, body-related guilt, and externalization of blame.

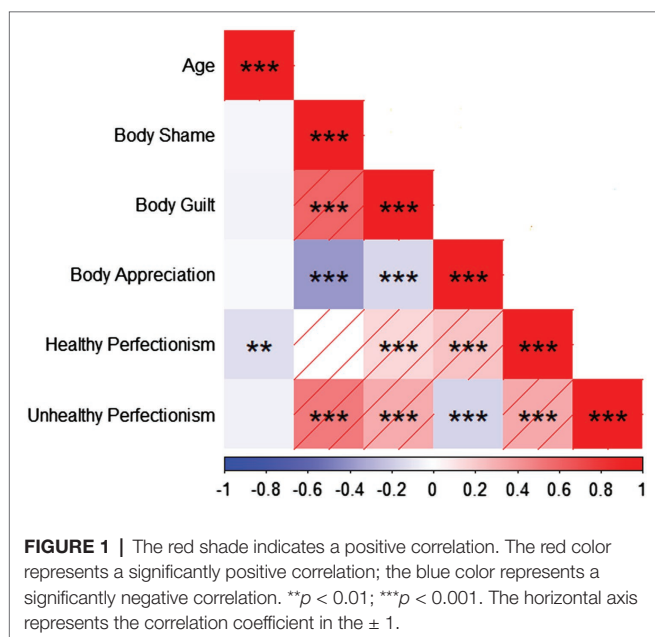
We invited two Chinese-English bilingual scholars to translate these questionnaires from Chinese back into English to increase precision. The standard back-translation technique (Brislin, 1970) was employed to translate the BF-SGS, which the first author, a native Chinese speaker, used. Following that, the back-translated and the original English versions of these questionnaires were compared and corrected minorly. Reliability was also supported in the present study for body-related shame (Cronbach's  $\alpha = 0.88$ ) and body-related guilt (Cronbach's  $\alpha = 0.82$ ).

### Procedure and Analytic Plan

Ethical approval was gained from the first author's University Ethics Committee. All participants completed questionnaires in a quiet classroom after obtaining informed consent, and

**TABLE 1** | Test of the demographic variable on the dependent variable.

		Body shame (n = 514)	Body guilty (n = 514)
<b>Background</b>			
Marriage	Married [48 (9.34%)]	$F(2,511) = 1.257,$ $p > 0.05$	$F(2,511) = 0.372,$ $p > 0.05$
	Unmarried, have lovers [183 (35.6%)]		
	Unmarried, no lovers [283 (55.1%)]		
Birthplace	Rural [147 (28.6%)]	$F(2,511) = 2.260,$ $p > 0.05$	$F(2,511) = 2.578,$ $p > 0.05$
	Town [158 (30.7%)]		
	City [209 (40.7%)]		
Profession	Science [263 (51.2%)]	$t(512) = -1.71,$ $p > 0.05,$ $d [95\% CI] = 0.15$ [-0.32, 0.02]	$t(512) = -0.97,$ $p > 0.05,$ $d [95\% CI] = 0.09$ [-0.26, 0.09]
	Liberal [251 (48.8%)]		



they were free to withdraw from the study at any time. This procedure took about 25 min to complete all the questionnaires.

Before formal analysis, we deleted the outliers ( $n = 30$ ). Then, we performed the independent T-test and one-way ANOVA analysis to test whether there is a significant difference between the dependent variables and the demographic variables. Finally, correlation analysis was to test the relationship between research variables. We conducted descriptive statistics using the package of compareGroups (Subirana et al., 2014), Pearson's  $r$  correlations using the corplot package (Wei and Simko, 2017).

Moreover, according to Baron and Kenny (1986), statistically significant correlations between predictors, possible mediators, and dependent variables are necessary for testing the mediation models. Hayes (2013) suggested that the correlation between X and Y is neither sufficient nor necessary to claim that X affects Y. Both paths, between X and mediator (the path a) and between the mediator and Y (the path b), are expected to be statistically significant.

Nonetheless, we followed Baron and Kenny's assumption by initially estimating the correlation coefficients among all variables. Subsequently, following Hayes' recommendation, we completed a series of multiple parallel mediation analyses (processR package, model 4) with the healthy perfectionism and unhealthy perfectionism as predictors (in different models), body appreciation as mediators, and body-related shame and body-related guilt as dependent variables, respectively. Finally, we used the bootstrapping method with a bootstrap value of 5,000 to examine indirect effects (Hayes, 2013). The 95% confidence intervals (CI) assigned the effect as significant if they did not include zero. Finally, we conducted mediation analysis using the package of processR.

## RESULTS

### Descriptive Statistics and Correlations

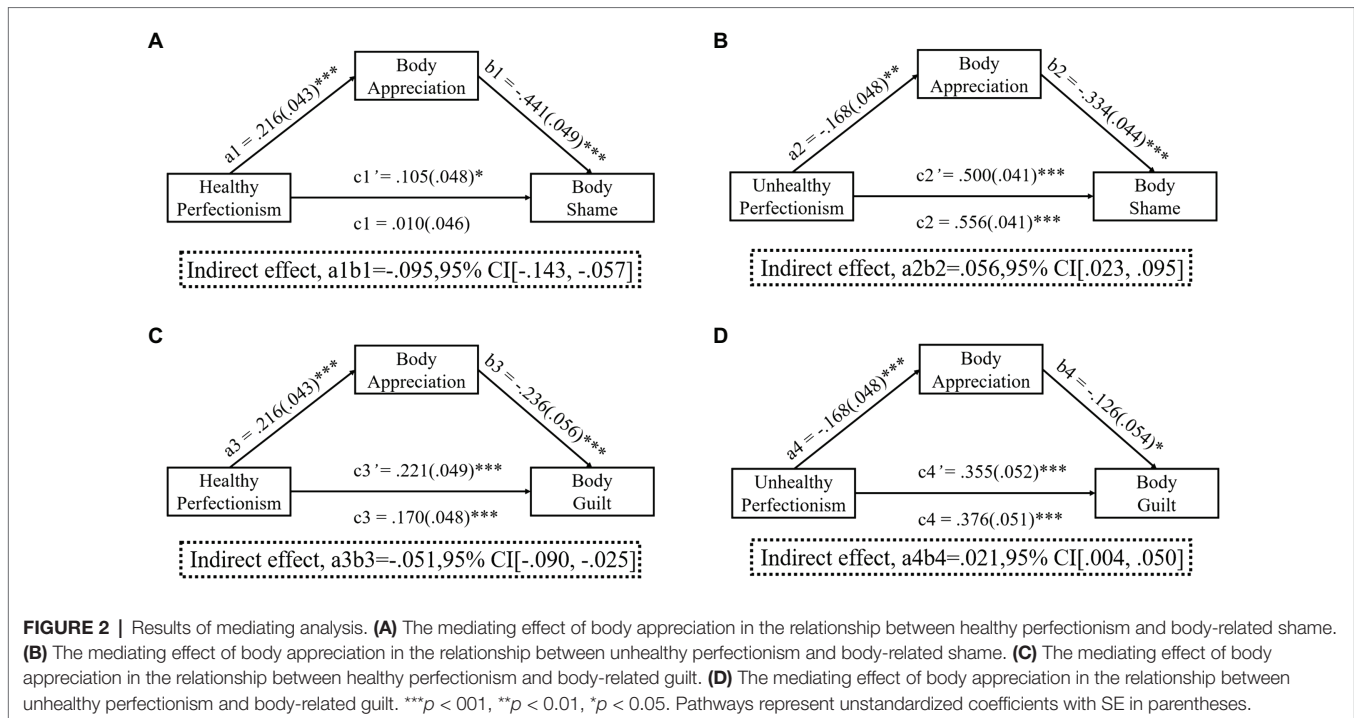
Demographic characteristics of the samples are displayed in **Table 1**. As expected, there is no significant difference between the dependent variables and the demographic variables. Therefore, there is no need to include demographic variables in the mediation analysis.

**Figure 1** shows that the correlational analysis indicated positive associations between body-related shame and unhealthy perfectionism ( $r = 0.505, p < 0.001$ ). Moreover, body-related guilt showed a positive relation to healthy perfectionism ( $r = 0.151, p < 0.001$ ) and unhealthy perfectionism ( $r = 0.319, p < 0.001$ ). The results also detected the negative relationship between body appreciation and body-related shame ( $r = -0.381, p < 0.001$ ) and body-related guilt ( $r = -0.157, p < 0.001$ ). Additionally, we noticed a positive relationship between body appreciation and healthy perfectionism ( $r = 0.224, p < 0.001$ ). In contrast, a negative relationship between body appreciation and unhealthy perfectionism ( $r = -0.167, p < 0.001$ ).

### Mediation Analysis

The relationship between healthy perfectionism and body-related shame ( $c1 = 0.010, p > 0.050$ ) was mediated by body appreciation, as seen from the simple mediation analysis results is presented in **Figure 2A**. Specifically, the higher the scores on healthy perfectionism, the more body appreciation was felt ( $a1 = 0.216, p < 0.001$ ), and subsequently, the more body appreciation felt, the lower body-related shame ( $b1 = -0.441, p < 0.001$ ). A 95% CI based on 5,000 bootstrap samples indicated that the indirect effect ( $a1b1 = -0.095$ ) was below zero ( $-0.143$  to  $-0.057$ ). Additionally, high healthy perfectionism was positively related to body-related shame ( $c1' = 0.105, p < 0.001$ ), even after considering the indirect effect of body appreciation. Body appreciation partially mediated the relationship between healthy perfectionism and body-related shame.

Individuals with high unhealthy perfectionism felt body appreciation less often ( $a2 = -0.168, p < 0.010$ ). The more body appreciation felt, the lower body-related shame experienced ( $b2 = -0.334, p < 0.001$ ). A 95% CI based on 5,000 bootstrap samples indicated that the indirect effect ( $a1b1 = 0.056$ ) was



above zero (0.023–0.095). Furthermore, higher unhealthy perfectionism was accompanied by higher body-related shame ( $c_2 = 0.556$ ,  $p < 0.001$ ), even when taking into account unhealthy perfectionism's indirect effect through the mediator of body appreciation ( $c_2' = 0.500$ ,  $p < 0.001$ ). The parameters of the indirect effect are displayed in **Figure 2B**. Body appreciation partially mediated the relationship between unhealthy perfectionism and body-related shame.

**Figure 2C** shows that the association between healthy perfectionism and body-related guilt was mediated by body appreciation (indirect effect;  $a_3b_3 = -0.051$ , CI 95% [-0.090, -0.025]). Body appreciation partially mediated the relationship between healthy perfectionism and body-related guilt. **Figure 2D** shows that the association between unhealthy perfectionism and body-related guilt was mediated by body appreciation (indirect effect;  $a_4b_4 = 0.021$ , CI 95% [0.004, 0.050]). Body appreciation partially mediated the relationship between unhealthy perfectionism and body-related guilt.

## DISCUSSION

There is a growing body of literature on body-related shame and body-related guilt and their role in mental health. However, less is known about whether healthy or unhealthy perfectionism and mediating body appreciation affect body-related shame and body-related guilt. Consistent with our hypotheses, results indicated that healthy perfectionism positively predicted body appreciation. However, unhealthy perfectionism negatively predicted body appreciation, which is similarly consistent with the previous study (Iannantuono and Tylka, 2012). At the same time, body appreciation is

a subjective positive attitude toward the body (Swami et al., 2016), which could be adjusted by personal self-willing. Healthy perfectionism has a positive strengthening effect on individual behavior, making things perfect by self-will and power. By contrast, unhealthy perfectionism has a negative reinforcement effect, which generally points to the future's fear and focuses on the surrounding people and future anxiety (Hamachek, 1978). In line with previous research, body appreciation negatively predicted body-related shame and body-related guilt (Avalos et al., 2005). Body appreciation as a positive body attitude distinguishes from body-related shame and body-related guilt, indicating body appreciation is converse to body-related shame and body-related guilt (Tangney et al., 1996; Stoeber et al., 2007). Therefore, in a clinical sense, excessive focus on body appreciation will make the individual compare with the surrounding environment and people and then produce a negative emotional experience of shame and guilt. As a better suggestion, we hope that individuals can take things as they are and do not pay too much attention to their body image.

Interestingly, we found that unhealthy perfectionism is negatively related to body-related shame and body-related guilt, consistent with the previous study (Fedewa et al., 2005). Only one thing needs to be emphasized: our result indicated that healthy perfectionism is positively related to body-related shame and body-related guilt, which is different from previous. Logically, the term perfectionism is associated with a feeling of doing things perfectly. The essence of perfectionism is not the pursuit of excellence but conditional self-acceptance (Greenspon, 2000). We can stay mentally healthy in many ways and be high achievers while still striving for perfection.

Overall, findings support the role of body appreciation mediating perfectionism and body-related shame and body-related guilt. Through body appreciation, individuals with unhealthy perfectionist tendencies may reduce their body-related shame and body-related guilt, providing a new perspective for reducing shame and guilt about the body. It is not easy to fundamentally change the perfectionist characteristics of individuals who are unhealthy perfectionists. Try instilling a body appreciation attitude into unhealthy perfectionists. Then internalizing body appreciation reduces negative body evaluations and shame and guilt, suggesting new ways for unhealthy perfectionists to embrace their bodies and respect and appreciate them.

## Limitations

The current study contributes to a better understanding of the mediating mechanism underlying the relationship between perfectionism and body-related shame and body-related guilt. However, caution should be exercised when interpreting the current findings.

First, from the perspective of gender selection, this study only studied female college students' body-related shame and body-related guilt. Male students' body-related shame and body-related guilt are equally significant and worthy of attention. Future research can further study male college students and conduct a comparative study on male and female college students. At the same time, we ignore the sexual orientation has a specific role in evaluating the female body.

Second, based on the future application's perspective, body appreciation is a positive body image and can be generalized and developed. Future research can put it at all the levels of society to understand the scope of body appreciation and improve people's sense of identity and respect for the body.

## Conclusions and Future Directions

The current study is the first study investigating the mediating role of body appreciation between different aspects of perfectionism (healthy and unhealthy) and body-related shame and body-related guilt. The results support the notion that body appreciation is a mediator between different forms of perfectionism and body-related shame and body-related guilt.

As an essential part of this study, we found that health perfectionism and body appreciation negatively mediate guilt and shame. This also implies the principle of no excess. It is natural for women to love beauty, but excessive attention

will often bring bad emotional experiences. As clinical researchers, we should give appropriate advice to clients in need to help them to balance the cognitive level of the body. As one of the potential effective interventions, if we can provide good physical appreciation training in the future, it will undoubtedly help to study women's emotional experience of the body.

## DATA AVAILABILITY STATEMENT

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

## ETHICS STATEMENT

The studies involving human participants were reviewed and approved by the Ethics Committee of Harbin Engineering University, and written informed consent was given by all the participants prior to participation. The patients/participants provided their written informed consent to participate in this study.

## AUTHOR CONTRIBUTIONS

TY, YR, and BD contributed to the conception and design of the study and take primary responsibility for communication with the journal and editorial office during the submission process, throughout peer review, and during publication. ZL, SL, and CY organized the database, performed the statistical analysis, and wrote the first draft of the manuscript, and they are equal contributors. LX and ZY contributed to manuscript revision and read and approved the submitted version. All authors contributed to the article and approved the submitted version.

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