

# Mediating effect of body image in relationship between psychological resilience and self-acceptance of college students

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**Abstract:** The aim of the present study was to investigate the body image, psychological resilience, and self-acceptance of college students to explore the correlation among these three variables, and verify the mediating effect of body image on relationship between psychological resilience and self-acceptance. A total of 450 college students were recruited and investigated using Cash's Multidimensional Body-Self Relations Questionnaire(MBSRQ), the Resilience Scale for Adults (RSA), and the Self-acceptance Questionnaire (SAQ). The results of correlation analyses showed that both psychological resilience and body image were significantly related to self-acceptance; psychological resilience was positively correlated with body image; Moreover, the mediation effect analysis showed that body image has a part of mediating role between psychological resilience and self-acceptance; and high body image could strengthen the positive effect of psychological resilience on self-acceptance.

**Keywords:** psychological resilience; body image ; self-acceptance

## Introduction

Self-acceptance is regarded as an important part of self-esteem and the basic condition for individuals to achieve self-esteem. Self-acceptance involves a nonjudgmental attention to both the good and bad aspects of the self in the past, present, and future. It is the ability and willingness to let others know one's true self, and it is also an appropriate self-evaluation. Self-acceptance is not only one of the important conditions for an individual to obtain a healthy personality, but also a necessary condition for the individual's mental health. The study found that individuals with self-acceptance have higher self-esteem and higher mental health. However, individuals who do not accept themselves tend to have low self-esteem, self-exclusion and self-denial. Such individuals usually have low self-esteem and are prone to psychological problems. Especially for college students, due to the increasing pressure, the mental health problems of college students have become increasingly prominent. A large number of domestic and foreign survey data show that about 20%-30% of college students have psychological problems. This shows that for individual learning self-acceptance is important.

In addition, the study found that body image also has an impact on the mental health of college students, especially to female college students. Body image, which refers to how individuals perceive their bodies and how they perceive others' evaluations of their bodies, has been widely concerned by scholars in recent years. Study shows that large numbers of female experience general stress associated with a thin-and-beautiful appearance and are more likely to be dissatisfied with their bodies because of distorted perceptions of body size. Studies have shown that female college students are more likely to have body image dissatisfaction, and body dissatisfaction has caused them a lot of psychological pressure, which has seriously affected individual mental health.

However, as a protective resource of individuals, psychological resilience helps to maintain and improve the level of physical and mental health of individuals. Psychological resilience is a psychological quality that enables individual to actively adapt and thrive under stress, crisis, frustration or trauma. It is an individual's stable personality mentality. In daily life, people need resilience to adjust whether they are dealing with various troubles or to adapt to some major life events. A study suggests that the higher the level of psychological resilience of an individual, the weaker the negative effects of stress and adversity on individual development results. The university stage is an important period of individual psychological development. In order to maintain individual mental health, it is necessary to improve the ability of self-regulation and constantly enhance their own psychological resilience. Only with a high psychological resilience can individuals better face the pressure and adapt to the external environment after entering the society.

In conclusion, the purpose of this study is to explore the relationship between psychological resilience, body image and self-acceptance of college students, so that college students can pay more attention to mental health. This study hypothesized that psychological resilience and body image would be significant prediction self-acceptance of college students (H1). And body image plays a mediating role between psychological resilience and self-acceptance (H2).

## Methods

### Participants

A total of 450 college students participants with complete data were extracted from the database. Among them, 208 were males,

accounting for 46.2%, and 242 were females, accounting for 53.8%. The number of students in each grade is 117 in the first year, 101 in the sophomore, 128 in the junior, and 104 in the senior. All respondents took part in the study on a voluntary basis and were assured that their data would be kept anonymous. Participants' demographic characteristics are presented in Table 1.

**Table 1. Participants' Demographic Characteristics**

Variable	N	%
Gender		
Male	208	46.2
Female	242	53.8
Grade		
Freshman	117	26.0
Sophomore	101	22.4
Junior	128	28.4
Senior	104	23.1
Location		
Urban	140	31.1
Rural	310	68.9

#### Procedures

In the present study, the undergraduate students from two universities in Gansu province were randomly selected as participants, and the experimenter was conducted by researchers. Each student is required to complete the Self-acceptance Questionnaire (SAQ), the Resilience Scale for Adults (RSA) and the Multidimensional Body-Self Relations Questionnaire (MBSRQ). Before starting the test, the instructions were read out uniformly, and the matters needing attention of the test were introduced in detail, and the participants were encouraged to feedback the current real state. Due to some privacy issues involved in the body image questionnaire, the participants were told to answer the questions anonymously in order to eliminate possible concerns. During the test, students should carefully read the instructions for each questionnaire and complete it within the specified time. The average test time is 20 minutes. After the completion of the questionnaire, the questionnaire will be collected on the spot, and the participants will be reminded to check whether there is any missing or wrong selection before the recycling scale. The recovered scales are identified according to the following principles: (1) the basic situation table has no missing answers; (2) the topics in the scale are not missing or multi-selected; (3) the scales for selecting the same answer or making regular answers for all topics are excluded. After the test, each participant will be given a small gift as compensation.

#### Measures

##### Self-acceptance Questionnaire (SAQ)

We assessed self-acceptance with the Self-acceptance Questionnaire (Cronbach's  $\alpha = .85$ ). This 16-item questionnaire has two factors which are self-acceptance and self-evaluation. The scale has a minimum score of 16 and a maximum score of 64. The total score of the two factors is the lowest 8 points and the highest 32 points respectively. The higher scores indicate higher self-acceptance, and lower scores indicate lower self-acceptance. The total score of SAQ was used in the study.

##### Resilience Scale for Adults (RSA)

The RSA is a 33 item self-report scale for measuring protective resilience factors among adults. The reliability and validity of the RSA has been found satisfactory in several studies. It uses a seven point semantic differential scale in which each item has a positive and a negative attribute at each end of the scale continuum. Half of the items are reversely scored in order to reduce acquiescence-biases. Higher scores indicate higher levels of protective resilience factors. Initially, a five-factor structure was reported. Later confirmatory factor analyses indicated a better fit when splitting one of the five factors. The final version has a six factor solution with factors named: 1) Perception of self (Cronbach's  $\alpha = .74$ ), 2) Planned future ( $\alpha = .73$ ), 3) Social competence ( $\alpha = .83$ ), 4) Structured style ( $\alpha = .80$ ), 5) Family cohesion ( $\alpha = .80$ ), and 6) Social resources ( $\alpha = .74$ ). The procedure for translation of the RSA is that two Chinese natives who are professors of psychology translate from English to Chinese, afterwards one English speaker back-translate from Chinese to English. Finally, a committee of three experts compared the English and Chinese versions and reached a consensus on discrepancies. Following these procedures, a final Chinese version was approved and tested.

##### Multidimensional Body-Self Relations Questionnaire (MBSRQ)

The 69-item MBSRQ assesses body-image attitudes with 10 subscales. Three subscales served as outcome indices. Appearance

Evaluation assesses evaluation of and satisfaction with overall appearance (Cronbach's  $\alpha = .88$ ). Appearance Orientation measures the degree of importance of and attention paid to one's appearance, as well as behavioral efforts to maintain or improve appearance ( $\alpha = .85$ ). Overweight Preoccupation taps weight vigilance, fat anxiety, current dieting, and eating restraint ( $\alpha = .73$ ). The domestic scholar Wang performed a forward-backward translation procedure from English to Chinese for the Multidimensional Body-Self Relations Questionnaire. The translations are evaluated and the items closest to the original content were chosen. The Chinese version was piloted to check for comprehensibility. The revised version was suitable for Chinese, so the study used the revised questionnaire.

## Results

Descriptive statistics and correlation matrix

The means, standard deviations, and correlations between body image, psychological resilience and self-acceptance are presented in Table 2.

**Table 2 Means, standard deviation and correlation analysis of all variables.**

	<i>M</i>	<i>SD</i>	1	2
body-image	3.22	0.31	-	
psychological resilience	4.87	0.74	.45**	-
self-acceptance	2.57	0.35	.36**	.46**

\* $p < .05$ . \*\* $p < .01$ .

Pearson correlation analysis results showed that self-acceptance was positively correlated with psychological resilience ( $r = .46, p < .01$ ) and body image ( $r = .36, p < .01$ ). Moreover, a significant positive correlation was found between psychological resilience and body image ( $r = .45, p < .01$ ).

**Table 3 The test of the mediating effect of body image.**

Predictor variable	Dependent variable	<i>B</i>	<i>T</i>	<i>R</i> <sup>2</sup>	<i>AdjR</i> <sup>2</sup>	<i>F</i>
resilience	self-acceptance	0.220	11.030**	0.214	0.212	121.670**
resilience	body-image	0.190	10.544**	0.199	0.197	111.182**
resilience	self-acceptance	0.179	8.211**	0.242	0.239	71.481**
body-image	self-acceptance	0.212	4.118**			

\* $p < .05$ . \*\* $p < .01$ .

As can be seen from Table 3, when body image was introduced as a mediating variable, the prediction result of psychological resilience on self-acceptance was still significant. This suggests that body image plays a mediating role.



**Fig 1. The mediating effect model of body image.**

\* $p < .05$ . \*\* $p < .01$ .

It can be seen from the table and the figure that psychological resilience and body image had a predictive effect on self-acceptance, which can explain 23.9% of the total variables. When psychological resilience alone predicted self-acceptance, the regression coefficient was 0.220 ( $p < .01$ ); When body image was added to the equation, the regression coefficient of psychological resilience decreased to 0.179 ( $p < .01$ ), it can be seen that body image played a mediating role. And because the regression coefficients of psychological resilience and body image in predicting self-acceptance were not zero, it is said that body image played a part of the mediating role between psychological resilience and self-acceptance.

## Discussion

The purpose of this study is to investigate the relationship between psychological resilience, body image and self-acceptance, and to

assume that body image has a mediating effect on the relationship between psychological resilience and self-acceptance. The analysis results of the mediation model found that psychological resilience has a positive prediction effect on self-acceptance; at the same time, body image has a partial mediating effect on the relationship between psychological resilience and self-acceptance. The results supported the research hypothesis.

The present study found that body image was positively correlated with self-acceptance, and it could directly predict self-acceptance. In other words, the more positive the body image of college students, the higher the degree of self-acceptance. Positive body image can improve individual self-confidence, which may help to enhance young people's satisfaction with their own body, thus increasing individual self-acceptance. The result of this study also found that there was a significant positive correlation between psychological resilience and self-acceptance. It indicated that the better the individual's psychological resilience, the higher the level of self-acceptance. A study found that individuals with higher psychological resilience perceived less psychological inferiority than those with lower psychological resilience, and were better able to withstand various pressures. They could accept and tolerate the imperfect aspects of their bodies, so their level of self-acceptance was relatively high.

The mediation effect analysis showed that body image has a mediating effect on the relationship between psychological resilience and self-acceptance. Why body image should be a mediator between psychological resilience and self-acceptance? Studies have shown that high psychological resilience was a potential for individuals to adapt to the society. Individuals with high psychological resilience could recognize and accept their bad aspects even in a negative situation. This further indicated that individuals with higher psychological resilience have higher self-acceptance levels. Therefore, psychological resilience was a factor that affects self-acceptance. Moreover, the study found that the higher the psychological resilience of the individual, the lower the dissatisfaction with body image. This indicates that higher psychological resilience can improve individual satisfaction with body image. Previous studies have shown that the more satisfied with body image, the higher the degree of self-acceptance of individuals. This shows that with the improvement of body image, the level of self-acceptance will also improve.

In addition, the verification results of mediation effects indicated that after controlling body image by the intervening variables, the direct efficacy of psychological resilience on the self-acceptance still reached a significant level. And indicating that body image can partially mediate the relationship between psychological resilience and self-acceptance. This condition was identified as a mediating effect. The results of this study suggest that college students who are more resilient are more satisfied with their body image and have higher levels of self-acceptance.

## Limitations

The present study primarily used the method of the questionnaire survey, the collected data was only the self-evaluation provided by the participants, and the subjective reasons such as the attitude of the respondents would cause some errors in the research. Furthermore, the study mainly investigated the relationship between variables and did not involve some specific improvement measures. Therefore, future research can be combined with the cultural background of China and put forward some specific and feasible methods to improve all aspects.

## Conclusions

The present study found that both body image and psychological resilience were significantly related to self-acceptance; body image could positively predict self-acceptance. Body image played a part of the mediating role between psychological resilience and self-acceptance.

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