

ISRG Journal of Arts, Humanities and Social Sciences (ISRGJAHSS)



ISRG PUBLISHERS

Abbreviated Key Title: ISRG J Arts Humanit Soc Sci

ISSN: 2583-7672 (Online)

Journal homepage: <https://isrgpublishers.com/isrgjahss>

Volume – II Issue-II (March – April) 2024

Frequency: Bimonthly



Relationship between Physical Self and Interpersonal Distress in Undergraduates: Mediating Effect of Self-Acceptance

Hou Yongmei^{1*}, Rao Yumin²

^{1&2} Department of Psychology, School of Humanities and Administration, Guangdong Medical University, Dongguan, Guangdong Province, China

| **Received:** 11.03.2024 | **Accepted:** 14.03.2024 | **Published:** 20.03.2024

*Corresponding author: Hou Yongmei

Department of Psychology, School of Humanities and Administration, Guangdong Medical University, Dongguan, Guangdong Province, China

Abstract

Objective To explore the characteristics of physical self, self-acceptance and interpersonal distress Among undergraduates and analyze the relationship among the above 3 variables.

Method: Adolescents' Physical Self Scale (APSS), Self-Acceptance Questionnaire (SAQ), Interpersonal Comprehension Diagnosis Scale (ICDS), and a self-compiled questionnaire on the general personal information are administrated to 987 undergraduates who are selected from 2 universities in Guangdong province by the convenient sampling method.

Results: (1) The total score of APSS, SAQ and ICDS are (142.33±29.30), (40.96±5.91), and (9.01±5.84), respectively. (2) There is a pairwise Correlation among the total scores of APSS, SAQ and ICDS ($r=.305, -.332, -.621$, all $P < .01$). (3) The total score of SAQ has a partly mediating effect in the relationship between the total scores of APSS and ICDS, and the mediating effect accounts for 72.34% of the total effect.

Conclusion: Physical self not only has a direct impact on the interpersonal distress among the undergraduates, but also indirectly influences it through self-acceptance.

Keywords: Undergraduates, Physical self, Self-acceptance, Interpersonal distress, Mediating effect

1. Introduction

Interpersonal relationships have a significant impact on the physical and mental health of college students. Numerous studies have shown that the quality of interpersonal relationships has a significant impact on the physical health, self-awareness, coping style, academic achievement, emotional health, group attachment, class cohesion, and social skills of college students

[1-3]. In recent years, interpersonal problems among domestic college students have become increasingly serious, with a detection rate of over 30%. Nearly 50% of psychological problems are caused by tense interpersonal relationships [4-5], posing greater and greater risks to the mental health of college students.

Physical self refers to an individual's recognition and evaluation of their physical characteristics, which is the earliest developed part of self-awareness. It involves an individual's perception and evaluation of their appearance, physique, physical fitness, health, etc. [6]. Self-acceptance refers to an individual's positive attitude towards themselves and all their characteristics, including positive aspects such as their body, personality, and abilities, as well as negative aspects such as their own shortcomings and mistakes [7].

There is a close relationship between physical self, self-acceptance, and interpersonal distress. From the perspective of formation pathways, the physical self is based on one's own ideal physical standards as a reference. With the rise and popularization of mass media, the ideal body image portrayed in the media has become the main way for people to obtain standard physical beauty [8]. There is a common belief among college students that women value their slim for beauty and men value their strong for beauty. If an individual fails to meet their expected ideal physical standards, it can lead to negative physical self and low self physical satisfaction. Most people who hold negative physical selves find it difficult to accept themselves. They "judge others by themselves" and believe that others also give negative evaluations of their physical characteristics. In order to avoid negative evaluations from others, they may experience interpersonal problems such as social anxiety, social distress, and even social avoidance [7, 9, 10]. On the other hand, from the results of mathematical statistics, there is a significant pairwise correlation between physical self, self-acceptance, and interpersonal distress [8, 11-13]. Interpersonal distress manifests as a series of explicit behaviors and emotional responses, which belong to outcome variables; Physical self is self-awareness and evaluation, also known as personality traits, which belong to distant variables, while Self-acceptance is an attitude, belonging to proximal variables. Physical self is the foundation of self-acceptance and should be mediated by self-acceptance. From this, we can assume that self-acceptance plays a mediating role between physical self and interpersonal distress, and the impact pathway is shown in Figure 1:

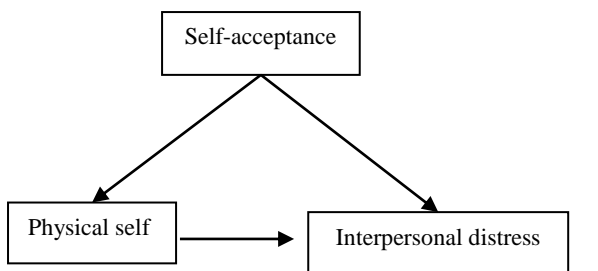


Figure 1. Path diagram of the mediating effect of self-acceptance between physical self and interpersonal distress

2. Objects and Methods

2.1. Objects

A convenient sampling is used to select 1150 undergraduates from a medical university and a college of science and engineering in Guangdong Province, and the combination of paper and online questionnaires is used for the survey. A Total of 987 valid questionnaires are collected, with an effective rate of 85.83%. Among them, there are 452 males and 535 females; 245 freshmen, 238 sophomores, 258 juniors, and 246 seniors; 262 in humanities, 270 in science, 263 in medicine, and 192 in sports and arts; 84 students have excellent academic performance, 274 have good

academic performance, 558 have average academic performance, 55 have poor academic performance, and 15 have very poor academic performance; 531 are from rural areas, 280 from towns, and 176 from cities; 805 only children and 182 non only children; 16 from rich families, 132 from well-off families, 719 from common families, 100 from financially disadvantaged families, and 20 from impoverished families; 308 are currently in love, 283 have been in love before, and 396 have never been in love; 90 fathers are employees in government agencies and public institutions, 145 employees in enterprises; 376 individual entrepreneurs, 219 farmers, 25 unemployed, and 132 self-employed individuals; 60 mothers are employees in government agencies and public institutions, 163 employees in enterprises; 291 individual entrepreneurs, 208 farmers, 113 unemployed, and 152 freelancers.

2.2. Tools

2.2.1. Adolescents' Physical Self Scale, APSS

Developed by Huang Xiting et al. (2002) [6], this scale consists of 33 items divided into five dimensions like appearance features (AC), motor features (MC), body features (DC), sexual features (SC), and negative features (NC). The Likert 7-point scoring system is used to score from 1-7 points corresponding to "very dissatisfied" to "very satisfied". The higher the score, the higher the physical self. In this study, the Cronbach's α coefficient of the total questionnaire is 0.954, and the Cronbach's α coefficient of each dimension ranges from 0.677 to 0.899.

2.2.2. Self-Acceptance Scale, SAQ

Compiled by Cong Zhong et al. (1999) [14], there are 16 items divided into two dimensions such as self-acceptance (SA) and self-evaluation (SE). The Likert 4-level rating method is used to score from 1 to 4 corresponding to "very similar" to "very different". The higher the total score, the higher the level of self-acceptance. In this study, the Cronbach's α coefficient of the total scale is 0.854, and the Cronbach's α coefficients of two dimensions are 0.763 and 0.802, respectively.

2.2.3. Interpersonal Comprehension Diagnosis Scale, ICDS

Compiled by Zheng Richang et al. (1986) [15], used to assess the degree of interpersonal distress, this scale consists of 28 questions, divided into four dimensions: interpersonal communication distress (TD), communication and interaction distress (CD), interpersonal interaction distress (WD), and heterosexual communication difficulties (HD). Each dimension has 7 questions. Each question is answered with either "yes" or "no", with a score of 1 for "yes" and 0 for "no". The higher the total score, the higher the level of interpersonal problems. The total score can be divided into three levels: a total score of ≤ 8 indicates a subject with no or less severe interpersonal problems, $9 \leq$ a total score of ≤ 14 indicates a subject with certain degree of interpersonal problems, and a total score of > 14 indicates a a subject with serious interpersonal problems. In this study, the Cronbach's α coefficient of the total scale is 0.845, and the Cronbach's α coefficient of each dimension is 0.709-0.782.

2.2.4. A self-compiled personal general information questionnaire

It includes 13 items, namely gender, grade, origin, only child or not, school category, major category, class ranking of academic performance, family economic status, father's occupation, father's education level, mother's occupation, mother's education level, and love experience.

2.3. Data processing

SPSS 20.0 software is used to analyze the valid data. Descriptive statistics are used to calculate the average score and standard deviation of each scale; Pearson product-moment correlation coefficients are used to explore the correlation between variables; Multiple linear stepwise regression analysis is used to analyze the mediating role of self-acceptance between physical self and interpersonal distress.

3. Results

3.1. The status quo of physical self, self-acceptance and interpersonal distress among college students

Frequency statistics show that 34.75% (343/987) of college students in this group are "those with no or less interpersonal

problems", 54.31% (536/987) of college students are "those with a certain degree of interpersonal problems", and 10.94% (108/987) of college students are "those with serious interpersonal problems".

According to Table 1, the total score of APSS and the scores of 5 dimensions in this group are all above the lower limit of moderate score of 3.5 and below the lower limit of high score of 4.9, indicating a moderate level. The total average score and average scores of each dimension of SAQ are both above the lower limit of 2.0 for moderate scores and below the lower limit of 2.8 for high scores, indicating a moderate level. Overall, the self-acceptance and physical self of college students are at a moderate level. The total score of ICDS is (9.01 ± 5.84), indicating a certain degree of interpersonal distress.

Table1. Descriptive statistics of APSS, SAQ, and ICDS scores (n=987)

Dimension	Min	Max	Mean	SD	Mean of item	SD of item
AC	24	66	47.87	10.12	4.30	0.95
MC	18	60	38.97	8.47	4.33	0.99
DC	7	41	23.82	6.72	3.97	1.12
SC	6	32	18.68	4.36	4.67	1.09
NC	3	26	12.90	3.69	4.30	1.23
APSS	79	212	142.23	28.56	4.31	0.89
SA	11	31	20.78	3.49	2.60	0.45
SE	10	29	20.18	3.54	2.52	0.46
SAQ	24	62	40.96	5.91	2.56	0.37
TD	0	6	2.38	1.82	0.34	0.26
CD	0	7	3.12	2.12	0.45	0.30
WD	0	6	1.45	1.40	0.21	0.20
HD	0	7	2.07	1.77	0.30	0.25
ICDS	0	25	9.01	5.84	0.32	0.21

3.2. Correlation analysis of various variables

From Table 2, it can be seen that the total score and scores of each dimension of APSS, SAQ, and ICDS are significantly correlated ($|r| = .144$ to $.898$; all $P < .01$).

Table 2. Correlation analysis of various variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.AC														
2.MC	.766***													
3.DC	.732**	.676***												
4.SC	.642***	.735***	.542***											
5.NC	.561***	.543***	.423**	.505**										
6.APSS	.882***	.898**	.809***	.823***	.749***									
7.SA	.293**	.272**	.245**	.240**	.220**	.305**								
8.SE	.513**	.528**	.428**	.470**	.369**	.553***	.359**							
9.SAQ	.490**	.486**	.409**	.431**	.358**	.521**	.822***	.827***						
10.TD	-.281**	-.228**	-.207**	-.216**	-.184**	-.267**	-.500**	-.377**	-.531**					
11.CD	-.356**	-.351**	-.309**	-.305**	-.252**	.377**	-.883**	-.473**	-.651***	.664***				
12.WD	-.207**	-.186**	-.169**	-.144**	-.148**	-.205**	-.413**	-.197**	-.369**	.526**	.547**			
13.HD	-.215**	-.177**	-.149**	-.160**	-.167**	-.209**	-.396**	-.313**	-.430**	.531**	.601***	.445**		
14.ICDS	-.332**	-.297**	-.262**	-.261**	-.235**	-.332**	-.593***	-.431**	-.621***	.840***	.883***	.737***	.794***	

Notes: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (the same below)

3.3. The mediating effect of self-acceptance on the physical self and interpersonal distress of college students

Due to the significant pairwise correlation among APSS, SAQ, and ICDS total score ($r = .305, -.332, -.621$, all $P < 0.01$), it meets the conditions of mediating effect test. First, the total scores of APSS, SAQ and ICDS are decentralized, and then the mediating effects of these 3 variables are tested according to the method proposed by Wen Zhonglin et al. [16].

As shown in Figure 2, the independent variable X is the physical self, the dependent variable Y is interpersonal distress, and the mediator variable M that needs to be verified is self-acceptance.

In the first step, take the total score of ICDS as the dependent variable and the total score of APSS as predictor variable and conduct regression analysis to obtain the regression coefficient c; Step 2, take SAQ total score as the dependent variable and APSS total score as the predictor variable and perform regression analysis to obtain the regression coefficient a; Step 3, take the total score of ICDS as dependent variable, and the total scores of APSS and SAQ as the independent variables, regression analysis is conducted to obtain regression coefficients b and c'. The results are shown in Table 3.

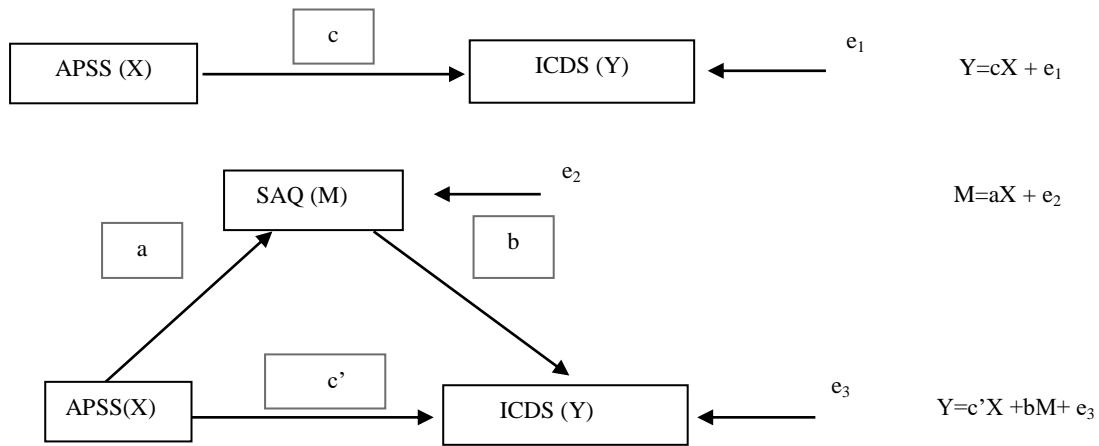


Figure 2. Steps for mediating effect testing

Table 3. Mediating effect test of self-acceptance between physical self and interpersonal distress

Step	Dependent variable	Independent variable	β	t	R^2
1 (c)	ICDS	APSS	-.332	-7.113**	.110
2 (a)	SAQ	APSS	.521	5.557**	.271
3 (c')	ICDS	APSS	-.204	-9.089**	.368
(b)		SAQ	-.461	-4.780**	

According to Table 3, in the first step, APSS total score predicts ICDS total score negatively, and the regression coefficient between the two is (-.332), indicating a significant progression to the second step; In the second step, APSS total score predicts SAQ total score positively, and the regression coefficient between the two is (.521), which significantly enters the third step; In the third step, after controlling for the impact of SAQ total score on ICDS total score, APSS total score can still predict ICDS total score negatively, and the obtained regression coefficient is (-.204). The regression coefficient is significant, that is, after adding the mediator variable SAQ total score between the dependent variable ICDS total score and the independent variable APSS total score, the absolute value of the regression coefficient between APSS and ICDS total score decreases. From this, it can be seen that SAQ total score has a significant partial mediating effect between APSS and ICDS total score, accounting for 72.34% of the total effect.

4. Discussion

The college students in this group generally have a certain degree of interpersonal problems, and their self-acceptance and physical self are at a moderate level, consistent with previous research results [4, 10, 11, 17], indicating that interpersonal problems are a high-risk psychological problem for college students, and their self-acceptance and physical selves need to be improved.

This study finds that there are both direct and indirect effects between physical self and interpersonal distress among college students.

On one hand, there is a significant negative correlation between physical self and interpersonal distress among college students, which is a direct effect between the two, consistent with the research results of Sun Yuan et al. [11]. That is to say, college students with higher levels of physical self tend to have milder levels of interpersonal problems. This is because most individuals with lower levels of physical self cannot objectively evaluate themselves, and a lower level of physical self is the most powerful evidence. This inappropriate self-evaluation and self-awareness cannot guide them to engage in social activities correctly. For example, they don't know what kind of image they appear in front of others, or what kind of advantage they use to attract others' attention, praise, and friendship... Therefore, they often attract others' disgust, ridicule, and attacks due to their strange behavior such as excessive imitation of the appearance of "celebrities" or "school flowers", and inappropriate speech such as excessively elevating others and belittling themselves, leading to more and more serious interpersonal disputes and troubles.

On the other hand, there is an indirect effect between the physical self and the interpersonal distress among college students,

manifested in the following pathways: physical self---self-acceptance---interpersonal distress, that is, self-acceptance plays a partial mediating role between physical self and interpersonal distress in college students. Most college students with high self-acceptance have higher levels of self-esteem and confidence, and are more willing to participate in interpersonal activities. Through extensive social activities, they are better able to master effective social skills, solve interpersonal problems reasonably, establish and maintain good interpersonal relationships, and thus reduce interpersonal problems. On the contrary, most people who hold negative physical selves find it difficult to accept themselves, have low levels of self-esteem and confidence, believing that others also give negative evaluations of their physical characteristics. In order to avoid negative evaluations from others, they may experience more interpersonal problems like social anxiety, social distress, and even social avoidance [7, 9, 10].

5. Conclusion

This study preliminarily revealed the relationship between physical self, self-acceptance, and interpersonal distress among college students, and verified the theoretical hypothesis that self-acceptance partially mediates the relationship between physical self and interpersonal distress. In the future, we need to add longitudinal research data to reveal the causal relationship between self-acceptance, physical self, and interpersonal distress.

References

1. Jing XZ, Lv XL, Zheng YF, et al. Study on the relationship between interpersonal relationships, coping styles, self-rated health, and depressive tendencies among college students [J]. *Psychological Monthly* 2023, 18(12): 78-81.
2. Hong YP, Jiang XX, Zhou XG. Relationship between group attachment, interpersonal relationships, and class cohesion among college students [J]. *China Journal of Health Psychology*, 2013, 21(6): 919-921.
3. Zhu FS, Wang Y, Zheng Y, et al. Impact of basketball intervention on aggressive behavior among college students: Mediating role of interpersonal relationships [J]. *China Journal of Health Psychology*, 2022, 30(3): 457-465.
4. Hou YM, Huang WH, Liang YX. Interpersonal obsession and its relevant factors among undergraduates[J]. *International Journal of Arts and Social Science*, 2024, 7(2): 35-46.
5. Zhou PS. Relationship between self-harmony, interpersonal sensitivity, and interpersonal communication difficulties among senior college students [J]. *China Journal of Health Psychology*, 2017, 25(10): 1530-1534.
6. Huang XT, Chen H, Fu MQ. Preliminary study on the physical self of adolescents [J]. *Psychological Science*, 2002, 25(3): 260.
7. Cong Z, Gao WF, Wang LH. Preliminary exploration of the correlation between self-acceptance and social avoidance and distress among college students [J]. *Chinese Journal of Behavioral Medicine*, 1999, 10(2): 39-40.
8. Romano KA, Heron KE, Ebener D. Associations among weight suppression, self-acceptance, negative body image, and eating disorder behaviors among women with eating disorder symptoms [J]. *Women & health*, 2021,

- 61(8): 791-799.
9. Zhao ZM. Relationship between negative physical self, self-esteem, and social avoidance among college students [J]. *Exploration and Practice of Educational Methods*, 2018, (10): 229-230.
10. Zhang XJ. Mediating role of self-acceptance between college students' fear of negative evaluation and perfectionism [J]. *Journal of Taiyuan Urban Vocational College*, 2018, (12): 50-53.
11. Sun Y, Zuo TT. Influence of physical self on interpersonal relationships among college students: Mediating role of social self-efficacy [J]. *Journal of Mudanjiang University*, 2015, 24(2): 174-176.
12. Niu HW, Tang JL, Long WX. Influence of physical self on interpersonal problems among college students [J]. *Soft Science of Health*, 2011, 25(6): 416-419.
13. Zhu RR, Li Y, Hao C. Study on the relationship between interpersonal relationships and self-acceptance among college students [J]. *Journal of Chifeng University (Natural Science Edition)*, 2013, 29(4): 102-103.
14. Cong Z, Gao WF. Development and reliability and validity testing of Self-Acceptance Questionnaire [J]. *Chinese Journal of Behavioral Medicine*, 1999, 8(1): 20-22.
15. Zheng RC. *Psychological Diagnosis of College Students* [M]. Jinan: Shandong Education Press, 2001: 234-235.
16. Wen ZL, Hou JT, Zhang L. Comparison and application of regulatory and mediating effects [J]. *Acta Psychologica Sinica*, 2005, 37(2): 268-274.
17. Yuan K, Luo YY, Du YS, et al. Relationship between cognitive flexibility, family intimacy, adaptability, and self-acceptance among college students [J]. *China Journal of Health Psychology*, 2021, 29(5): 781-787.