

# The Influence of Social Appearance Anxiety on Impulsive Consumption and Acceptance of Cosmetic Surgery: Evidence from the Multiple Mediation Model

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**Abstract.** This paper aims to explore the influence of social appearance anxiety on social media use, impulsive consumption, and acceptance of cosmetic surgery. One hundred and forty-seven men and 212 women in China, with an age range of 18-28 (mean age 20.91 years, standard deviation 1.59 years) were recruited in this study. Two hundred and seventy-five effective questionnaires were collected with a recovery rate of 76.60%. By using correlation analysis, regression analysis, and mediation analysis, this study found that social appearance anxiety is highly positively correlated with social media use, impulsive consumption, and acceptance of cosmetic surgery. Importantly, selfie-related behaviors and selfie editing mediate the relationship between social appearance anxiety and acceptance of cosmetic surgery. Moreover, the relationship between social appearance anxiety and impulsive consumption was mediated by consumption intention and selfie editing.

**Keywords:** Social Appearance Anxiety; Impulsive Consumption; Acceptance of Cosmetic Surgery; Social Media; Selfie.

## 1. Introduction

As people's pursuit of beauty continues to increase, appearance anxiety has become a common social phenomenon in China today (Yang & Zhou, 2021). We have known from previous studies that social appearance anxiety is strongly associated with automatic thoughts. Moreover, social appearance anxiety is positively associated with negative factors such as stress and depression (Esratur & Özlem Çakmak, 2014). In this regard, to better solve the related problems of social appearance anxiety in the future, we need to conduct more specific research on social appearance anxiety. Social media is currently the most popular information dissemination platform, if it is not used properly, it will also lead to social appearance anxiety (Ayar, etc., 2018).

Cosmetic surgery refers to elective surgical and non-surgical that aim to improve physical appearance. It could result in self-perceived improvements in physical appearance. Among the countries in the Asia-Pacific, China has one of the highest numbers of cosmetic surgeries and procedures carried out, the underlying reason for the cosmetic surgeries in recent years may be related to the increasing social appearance anxiety and the acceptance of cosmetic surgery. Elements of appearance such as skin color, and facial features can cause social appearance anxiety. Individuals with negative beliefs about appearance are more susceptible to developing social appearance anxiety. Moreover, several factors unique to social media use could result in Chinese people's social appearance anxiety, which may explain their interest and appearance in cosmetic surgery.

For example, selfie-related behaviors, that is, photo taking, posting, and sharing, as well as other selfie-related behaviors (status updates, paying close attention to the number of followers and "like", messages) in social media, provide the opportunity to display an ideal self-image to a broad social community from whom to attract attention and admiration. Before online posting and sharing, the self-images can be edited by selfie editing apps. Both selfie-related behaviors and selfie-editing were found to be a significant influence on social appearance anxiety (Lau & Idang, 2022).

However, it is unclear the relationship among selfie-related behaviors, selfie editing, and the acceptance of cosmetic surgery, considering that social appearance anxiety increased among young people and the substantial growth of cosmetic surgery rates in China, and Kim and Chung (2016)

found that appearance importance and social appearance anxiety turned out to have significant positive effects on appearance management behavior and cosmetic surgery intention. The purpose of this study is to further find out whether social appearance anxiety influences acceptance of cosmetic surgery, through selfie-related behaviors and selfie editing. We subdivide social media into three sections: social media use behaviors, selfie-related behaviors, and selfie editing for more detailed exploration. On this basis, new variables are added, impulsive consumption, consumption intention, and acceptance of cosmetic surgery. In addition, we know that being overweight can cause negative psychological mood (Gariepy & Schmitz, 2010), so we also take Body mass index (BMI) as a variable and analyze its relationship with social appearance anxiety.

## 2. Research Methods

### 2.1 Material

The questionnaire has been separated into seven parts: social appearance anxiety, social media use behaviors, selfie-related behaviors, selfie editing, impulsive consumption, consumption intention, and acceptance of cosmetic surgery. In addition, each participant's height and weight were reported. BMI was defined as body weight (kg) divided by the square of height (m).

### 2.2 Subject

We conducted a cross-sectional quantitative study, recruiting a sample of 147 men and 212 women, with an age range of 18-28 (mean age 20.91 years, standard deviation 1.59 years). 275 effective questionnaires were collected with a recovery rate of 76.60%. T-tests were performed on 275 independent samples. We found that there was no significant difference in scores of social appearance anxiety, social media use behaviors, selfie-related behaviors, selfie editing, impulsive consumption, consumption intention, and acceptance of cosmetic surgery between men and women. Men's BMI was higher than women's BMI (Table 1).

**Table 1.** The Difference of Scores between Male and Female Students on Scale

	male		female		t	P
	M	SD	M	SD		
Social appearance anxiety	52.62	11.90	51.40	12.89	0.82	0.42
Social media use behaviors	7.09	2.67	7.10	2.52	0.03	0.97
Selfie-related behaviors	17.97	5.08	17.77	4.82	0.34	0.73
Selfie editing	64.96	21.89	69.43	20.58	1.75	0.08
Impulsive consumptions	10.66	4.23	10.99	4.53	0.62	0.53
Consumption intention	13.63	4.81	13.67	4.71	0.07	0.94
Acceptance of Cosmetic surgery	53.81	24.02	56.44	19.48	1.00	0.32
BMI	22.34	2.23	20.36	2.58	6.71	<0.001

## 3. Results

### 3.1 Correlation Analysis

As shown in Table 2, correlation analysis shows that (1) BMI is significantly positively correlated with social appearance anxiety, social media use behaviors, selfie-related behaviors, selfie editing, impulsive consumptions, consumption intention and acceptance of cosmetic surgery; (2) social appearance anxiety is significantly positively correlated with BMI, social media use behaviors, selfie-related behaviors, selfie editing, impulsive consumptions, consumption intention and acceptance of cosmetic surgery; (3) social media use behaviors is significantly positively correlated with BMI, social appearance anxiety, selfie-related behaviors, selfie editing, impulsive consumptions, consumption intention and acceptance of cosmetic surgery; (4) selfie-related behaviors is significantly positively correlated with BMI, social appearance anxiety, social media use behaviors,

selfie editing, impulsive consumptions, consumption intention and acceptance of cosmetic surgery; (4) selfie editing is significantly positively correlated with BMI, social appearance anxiety, social media use behaviors, selfie-related behaviors, impulsive consumptions, consumption intention and acceptance of cosmetic surgery; (5) impulsive consumptions is significantly positively correlated with BMI, social appearance anxiety, social media use behaviors, selfie-related behaviors, selfie editing, consumption intention and acceptance of cosmetic surgery; (6) consumption intention is significantly positively correlated with BMI, social appearance anxiety, social media use behaviors, selfie-related behaviors, selfie editing, impulsive consumptions, and acceptance of cosmetic surgery; (7) acceptance of cosmetic surgery is significantly positively correlated with BMI, social appearance anxiety, social media use behaviors, selfie-related behaviors, selfie editing, impulsive consumptions, and consumption intention.

**Table 2.** Correlation between BMI, social media use behaviors, selfie-related behaviors, selfie editing, impulsive consumption, consumption intention, and acceptance of cosmetic surgery

	BMI	Social appearance anxiety	Social media use behaviors	Selfie-related behaviors	Selfie editing	Impulsive consumptions	Consumption intention	Acceptance of Cosmetic surgery
BMI	1							
Social appearance anxiety	0.42**	1						
Social media use behaviors	0.37**	0.64**	1					
Selfie-related behaviors	0.39**	0.67**	0.70**	1				
Selfie editing	0.27**	0.56**	0.63**	0.60**	1			
Impulsive consumptions	0.26**	0.43**	0.47**	0.43**	0.70**	1		
Consumption intention	0.30**	0.46**	0.44**	0.45**	0.42**	0.41**	1	
Acceptance of Cosmetic surgery	0.32**	0.48**	0.50**	0.53**	0.46**	0.35**	0.39**	1

\*, p < 0.05; \*\*, p < 0.01

### 3.2 Mediation Analysis

The result from the multiple mediation analysis showed that the relation between social appearance anxiety and acceptance of cosmetic surgery was mediated by selfie-related behaviors and selfie editing (Table 4).

**Table 3.** Results from a multiple mediation analysis.

The multiple mediation model	β	95% CI
social appearance anxiety – (selfie-related behaviors and selfie editing) – acceptance of cosmetic surgery		
Total effect	0.85	[0.67, 1.03]
Direct effect	0.33	[0.09, 0.57]
Indirect effect through selfie-related behaviors	0.35	[0.19, 0.51]
Indirect effect through selfie editing	0.18	[0.05, 0.31]
Total indirect effect	0.52	[0.35, 0.71]

**Table 4.** Results from a multiple mediation analysis.

The multiple mediation model	β	95% CI
social appearance anxiety – (consumption intention and selfie editing) – impulsive consumption		
Total effect	0.15	[0.11, 0.19]
Direct effect	0.001	[-0.04, 0.04]
Indirect effect through selfie-related behaviors	0.13	[0.10, 0.16]
Indirect effect through selfie editing	0.02	[0.005, 0.04]
Total indirect effect	0.52	[0.35, 0.71]

Furthermore, the relation of social appearance anxiety to impulsive consumption was mediated by consumption intention and selfie editing (Table 4).

#### 4. Discussion and Conclusion

Cosmetic surgery has become the norm in today's society, there are always some dangers when people are chasing beauty. In addition to the risks of direct physical harm that we already know about surgery, cosmetic surgery can also bring about some emotional problems. According to a recent systematic review, the rates of depression (5-26%), anxiety (11-22%), and personality disorders (0-53%) in people seeking cosmetic surgery may be higher than the general population (which are estimated to be 10%, 16% and 12% respectively (Sharmi Bascarane,2021). Prior research had investigated the impact of social appearance anxiety on cosmetic surgery intention. However, there were limited studies regarding the cosmetic surgery intention in the context of China, and regarding the relationship between social appearance anxiety, selfie-related behaviors, selfie editing, and acceptance of cosmetic surgery.

Our research found that social appearance anxiety influences the extent to which people undergo cosmetic surgery via selfie-related behaviors and selfie editing. Prior research suggested that higher frequency of selfie-editing for online posting is associated with increased body shame, appearance anxiety, and dissatisfaction (McLean et al., 2015; Tiggemann et al., 2020). Our study further showed that higher social appearance anxiety induced more selfie-related behaviors and selfie editing, and those who are very concerned or focused on selfie-related behaviors may result in their higher cosmetic surgery intention. As individuals compare their appearance with the shared selfies, they might experience low body confidence and have the desire to change the weakness of their physical appearance, which encourages more acceptance of cosmetic surgery. If some anti-appearance anxiety propaganda can be added to the selfie software used by the public, it may help to reduce the physical and emotional damage caused by excessive plastic surgery in the future and lead to a new direction. Social media has now become the main platform for contemporary people to communicate, while it is inevitable that appearance anxiety will be generated and deepened in the process of using it. However, social media can also be used as a platform to promote the avoidance of appearance anxiety. First, as an information flow platform, social media itself can disseminate information about anti-appearance anxiety by advertising or posting. Second, celebrities who use social media can also give speeches related to anti-appearance anxiety. All in all, how to use social media can affect the public's different perceptions of appearance anxiety.

Also, we found that selfie editing behavior and consumption intention play a mediating role between social appearance anxiety and impulsive consumption. We can find that many merchants claim that their products can significantly improve their appearance by taking advantage of customers' appearance anxiety and consumption intention to become beautiful. Customers consume with this mentality, and if the effect fails to meet expectations, they will get negative effects. It is such a strategy that makes appearance anxiety and impulsive consumption more likely to deepen repeatedly. So it is also very important to break this cycle effectively.

Overall, this study investigated the influence of social appearance anxiety on social media use, impulsive consumption, and acceptance of cosmetic surgery. This study showed that selfie-related behaviors and selfie editing mediate the relationship between social appearance anxiety and acceptance of cosmetic surgery. Moreover, the relationship between social appearance anxiety and impulsive consumption was mediated by consumption intention and selfie editing. More factors that affect impulsive consumption and cosmetic surgery content need further intention.

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