

The Correlative Dynamics Between Self-Enhancement and Appearance-Related Distress in Social Media Contexts

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Abstract. This study focuses on the social media scenario and conducts an in-depth analysis of the complex correlation between self-improvement behaviors and appearance-related concerns. Self-enhancement, which usually manifests itself as a tendency to present oneself in a positive light, is a common phenomenon on social media platforms. On the other hand, appearance-related distress refers to negative emotions arising from concerns about one's appearance. The study will also look at how social comparison and peer appraisal act as mediators in this relationship. A survey involving 416 participants found that frequent photo editing was significantly associated with higher appearance anxiety. Especially for those who are accustomed to making social comparisons, they may unconsciously compare their ideal image with that of others, which can cause anxiety about appearance and figure. This situation is more prominent among heavy social media users, which indicates that prolonged exposure and immersion in these idealized images can make people's concerns and dissatisfaction with their appearance more severe. The research results clearly show that excessive self-beautification poses psychological risks. To address this issue, this study proposes measures from two aspects, personal habits and platform design, in order to promote healthier self-perception and make online behavior more rational. Doing so will not only help reduce individuals' anxiety about their appearance and make their self-perception more accurate and positive but also provide valuable reference for the healthy development of social media platforms.

Keywords: self-beautification, appearance anxiety, social comparison, social media use, photo editing.

1. Introduction

In the age of social media, self-presentation has become an integral part of users' daily interactions. With the increasing popularity of visual platforms, users' attention to their self-image has significantly increased. From meticulously edited lifestyle photos to carefully curated personal brand presentations, self-presentation takes various forms, reflecting unique digital identities. Research indicates that users may experience cognitive dissonance through social comparison, leading to widespread body image anxiety. Nowadays, many users see perfect images posted by others on social media and begin to feel anxious about their appearance. This phenomenon is particularly common among teenagers and young women. Social media is full of edited photos of

people's faces, which makes people increasingly dissatisfied with their own appearance and increasingly anxious. Therefore, researching the relationship between self-presentation and appearance anxiety has important practical significance. Most existing studies focus on a single self-presentation model, lacking a comprehensive analysis of multidimensional self-presentation and its underlying psychological mechanisms.

The findings demonstrated that social comparison and evaluation sensitivity mediates this relationship, addressing gaps in existing research regarding psychological mechanisms. The study also identified different effects resulting from varying degrees of beautification intensity. Additionally, the findings can provide targeted strategies for platforms and users. For example, platforms can optimize algorithms to reduce excessive recommendations of homogeneous content or promote traffic incentive mechanisms for authentic content to alleviate users' social comparison pressures. For users, understanding the relationship between self-beautification and anxiety can help cultivate healthier social media usage habits, enhance media literacy, achieve healthy self-presentation, and maintain good mental well-being, thereby alleviating appearance anxiety.

This study mainly explores three core issues: How self-beautification behavior affects appearance anxiety through social comparison tendencies; The mediating role played by the sensitivity of others' evaluations in this process; Different degrees of beautification will bring about different effects.

This study collected 416 questionnaires, among them, the number of female samples is 238. This quantity accounts for 57.21%. The number of male samples was 178. Its proportion is 42.79%.

2. Literature review

Existing research indicates that adolescents express themselves in a variety of ways on social media, so the impact on adolescents' body image anxiety is quite complex. On the one hand, social media will spread a unified aesthetic standard. The social comparison mechanism will also be strengthened. This intensifies the anxiety about appearance. On the other hand, there are diverse aesthetic trends on the platform, there are also real scenes of self-expression. These methods offer potential relief from anxiety. This duality is evident among user groups from different cultural backgrounds. However, due to differences in research methods and samples, the specific mechanisms of action are also diverse, and relevant scholars have already conducted quantitative research on this topic. A survey recruited 2,000 women aged 18 to 26, it was found that the longer they spent on social media, the more severe their anxiety about appearance became [1]. This study has a unique aspect, it is based on evolutionary psychology. The social comparison mechanism in human evolution is triggered by idealized images on social media, according to the study. Excessive self-criticism results from this.

Relevant scholars selected ten Chinese college students; two rounds of in-depth interviews were conducted and a theoretical model of appearance anxiety on social media was constructed [2]. Research has found that visual platforms such as Douyin and Rednote, shape a single aesthetic standard, it also creates a comparative environment. This intensifies people's sense of anxiety. However, the sharing of ordinary people and diverse aesthetic content can alleviate this anxiety to a certain extent.

Some scholars took Rednote as an example and conducted 40 open-ended questionnaires and in-depth interviews. It reveals the dissemination mechanism of the aesthetics of Internet celebrities on platform [3]. Research has found that users tend to overly beautify their images in order to conform to mainstream aesthetic trends. Behaviors such as photo editing and imitating fashion styles lead to a disconnect between one's real image and ideal image, which in turn causes anxiety.

Some scholars used a mixed research method, dividing users into three categories through 948 questionnaires and qualitative interviews: secure self, insecure self, and non-social self. The study found that insecure users rely more on social media to seek self-validation, and their appearance anxiety is related to excessive self-exposure and sensitivity to negative feedback. In contrast, secure users have a relatively stable mindset when using social media and tend to use these platforms as tools to express their emotions. Compared with other users, their level of anxiety is lower [4].

Previous studies have focused on how social media affects people's body image anxiety. However, most of these studies have focused on identifying problems rather than offering solutions. Furthermore, there is currently insufficient long-term data on the study of the relationship between social media use and body image anxiety. This study specifically examines how people develop body image anxiety when using social media, identifies two main psychological causes, and finally offers solutions to the problem.

3. Research design

3.1. Descriptive analysis

In this study, the independent variable is self-presentation behavior, which refers to presenting oneself in a positive light. This refers to individuals using various means to enhance their image in the eyes of others and shape a positive and proactive self-image. For example, before Posting photos on social media, one would beautify their facial features. The dependent variable of this study is appearance anxiety. This refers to the fact that individuals pay more attention to their appearance than the average person, and as a result, they develop negative emotions such as worry and unease. For example, often look in the mirror to check for minor flaws in one's appearance. Social comparison tendencies and sensitivity to others' evaluations were included in the study and used as mediating variables. Social comparison is the process in which people compare themselves with others in terms of their abilities, appearance and other aspects to see where they stand and how valuable they are. This study focuses particularly on upward social comparison, which involves individuals comparing themselves to others who are superior or more advantaged in certain aspects. Such comparisons may lead to negative emotions, such as reduced self-esteem and anxiety. Sensitivity to others' evaluations refers to the degree to which individuals are concerned about being evaluated by others and the intensity of their emotional responses. In the research examples, some people particularly want to receive favorable comments from others. They like the content they post on social media to be liked and also hope that others will see the photos they post.

The usage of online digital media is used to measure how frequently social media is used [5]. The Appearance Anxiety Scale is used to assess anxiety symptoms related to body image [6,7]. This scale has 10 questions and is used to assess the symptoms of physical deformities. The answer options for each project range from 0 (never) to 5 (always).

The photo editing behavior on social media was measured through the photo editing scale [8]. The scale has five questions, for instance, "I will edit my image before uploading photos" and "I will fix minor blemishes before uploading photos". The higher the score, the more photo editing activities the user has carried out.

The Need for Online Social Feedback (NfOSF) scale was developed through focus group discussions to assess users' sensitivity to others' evaluations [9]. For example, "When I receive positive feedback on my content from others, I feel quite satisfied."

The upward Physical Appearance Comparison Scales (UPACS) consist of 10 items, and it is mainly used to see if a person often compares their appearance with those who are better than

themselves. The propensity to make snap judgments based on looks is more pronounced the higher the score [10]. For example, “I always compare myself to people I think are more good-looking than me.”

3.2. Research hypotheses

According to the research of relevant scholars, excessive reliance on retouched images may exacerbate the sense of insecurity related to self-image [11]. Therefore, Hypothesis One is proposed: the intensity of positive self-beautification in social media (the frequency and degree of photo editing) is significantly positively correlated with the user's appearance anxiety level. The stronger the former, the higher the latter.

Festinger said in the theory of social comparison that people get to know themselves by comparing themselves with others [12]. Whether a person tends to compare themselves with others or not will affect how they present themselves. Especially when it comes to appearance, many people like to compare themselves with others. When people see others' beautified images on social media or in real life, they unconsciously compare themselves with others, feel that their appearance is inferior to others, and thus develop appearance anxiety. Goffman introduced the concept of impression management, which refers to people's efforts to present a favorable impression to others [13]. To gain others' approval and positive evaluations, people pay particular attention to their appearance when presenting themselves. If one becomes overly concerned about others' perceptions of their appearance, worrying that it does not align with societal expectations or others' standards, it can lead to appearance anxiety. Based on the theories of social comparison and impression management, Hypothesis Two is proposed. Social comparison tendencies and others' evaluations indirectly exacerbate appearance anxiety in self-presentation.

3.3. Result analysis

Table 1. Basic information of the sample

name	Options	Frequency	Percentage (%)	Cumulative percentage (%)
gender	female	238	57.21	57.21
	male	178	42.79	100.00

Table 1 shows that the frequency of female samples is 238, accounting for 57.21%; the frequency of male samples is 178, accounting for 42.79%. The cumulative percentages of the two types of samples are 57.21% and 100% respectively. The results show that the sample contains a slightly higher proportion of women than men.

Table 2. Social media usage habits

name	Options	Frequency	Percentage (%)
Frequency of social media use	Once a day or less	36	8.65
	Several times a day	219	52.64
	Almost constantly	161	38.70
How often do you watch short videos/send instant messages	Once a day or less	26	6.25
	Several times a day	180	43.27
	Almost constantly	210	50.48

As shown in Table 2, the statistical results of the frequency of social media use show that 52.64% of the respondents chose "several times a day", which is the mainstream usage frequency, followed by "almost constantly" users, accounting for 38.70%, and the lowest proportion of those who chose "once a day or less" was 8.65%; in terms of the frequency of short video browsing or instant messaging, 50.48% of the respondents chose "almost constantly", which is higher than "several times a day" (43.27%) and "once a day or less" (6.25%). This shows that the respondents as a whole show a high frequency of use of social media, especially in instant communication and viewing short videos.

Table 3. Reliability test

Dimensions	Question	Cronbach's alpha coefficient
Self-beautification	5	0.843
Social comparison	10	0.915
Others' comments	5	0.847
Appearance Anxiety	10	0.921

As shown in Table 3, the Cronbach's α coefficients in all dimensions are above 0.7. This indicates that when the questions in the questionnaire test the same concept, the results can match. A high coefficient also indicates that the questions in the questionnaire are reliable, the measured results are stable, and it can truly measure what one wants to measure. In this way, the survey results are more convincing and lay the foundation for the subsequent effectiveness test.

Table 4. Correlation analysis

	Self-beautification	Social comparison	Others' comments	Appearance Anxiety
Self-beautification	1			
Social comparison	0.469***	1		
Others' comments	0.485***	0.380***	1	
Appearance Anxiety	0.408***	0.395***	0.364***	1

As shown in Table 4, a correlation analysis was conducted on the four variables of self-idealization, social comparison, others' evaluations, and body image anxiety. The p-value between all variables is less than 0.001. These data indicate that there are significant positive correlations among the four variables, with the correlation between self-enhancement and the other variables being particularly pronounced.

Table 5. Multiple linear regression

	Appearance Anxiety	Social comparison	Others' comments	Appearance Anxiety
constant	2.236*** (15.346)	2.027*** (14.656)	1.827*** (12.135)	1.473*** (8.031)
Self-beautification	0.367*** (9.088)	0.414*** (10.810)	0.471*** (11.291)	0.195*** (4.142)
Social comparison				0.232*** (4.602)
Others' comments				0.160*** (3.444)
R ²	0.166	0.220	0.235	0.242
Adjust R ²	0.164	0.218	0.234	0.236
F value	F (1,414)=82.585, p =0.000	F (1,414)=116.855, p =0.000	F (1,414)=127.494, p =0.000	F (3,412)=43.745, p =0.000
* p <0.05 ** p <0.01 *** p <0.001 The t values are in brackets				

As can be seen from Table 5, in all four models, the p-values were less than 0.001. In Model 1, the data show a good effect ($\beta = 0.367$, $t = 9.088$), with model explanatory power $R^2 = 0.166$, $F(1,414) = 82.585$, $p = 0.000$; In Model 2, the data status is also relatively good ($\beta = 0.414$, $t = 10.810$), with $R^2 = 0.220$; In Model 3, $\beta = 0.471$, $t = 11.291$, $R^2 = 0.235$; In Model 4, after incorporating social comparison and others' evaluations, the predictive effect of self-enhancement on appearance anxiety decreased to $\beta = 0.195$, $t = 4.142$, but remained significant. Additionally, data of social comparison ($\beta = 0.232$, $t = 4.602$) and others' evaluations ($\beta = 0.160$, $t = 3.444$) also shows a good effect, with the model's explanatory power increasing to $R^2 = 0.242$, $F(3,412) = 43.745$, $p = 0.000$.

4. Discussion

Previous studies have mostly focused on user behavior, ignoring how platform algorithms actively construct aesthetic standards, as well as how users should resist appearance anxiety and the actual alleviation effect. Existing studies pay insufficient attention to the changes in self-presentation in the social media environment and its long-term impact on appearance anxiety. They fail to consider the possible changes in an individual's self-presentation on social media over time and the long-term cumulative effect of such changes on appearance anxiety. Furthermore, cross-cultural comparisons are relatively insufficient. Individuals from different cultural backgrounds have different experiences of appearance anxiety. For instance, factors such as the degree of emphasis on appearance and the pressure of social evaluation of appearance can all affect an individual's level of appearance anxiety.

Based on the research results, here are some suggestions for individual users, trying to reduce their reliance on photo editing and cultivate acceptance of their true selves. Limit the time spent browsing social media and avoid excessive exposure to the perfect images on social media. For the platform, the "Unedited Image" tag function can be added to encourage the sharing of real content. Optimize the algorithm to reduce the push of a single aesthetic standard. In conclusion, image management on social media is a double-edged sword. Moderate use can boost confidence, but excessive embellishment may have the opposite effect. Healthy usage habits and diverse aesthetic perceptions might be the key to alleviating appearance anxiety.

5. Conclusion

This study adopted the questionnaire survey method and analyzed the results to draw the conclusion that excessive reliance on photo editing tools may intensify dissatisfaction with appearance through the mechanisms of social comparison and others' evaluation, thereby aggravating appearance anxiety. Especially high-frequency social media users are more likely to fall into a vicious circle. Based on this, the following suggestions and future prospects are put forward.

First of all, the platform studies how to reduce the negative impact of social comparison through functional or content optimization. Secondly, cross-cultural studies can re-examine cultural differences in the context of globalization, such as whether Generation Z is still constrained by traditional values. In addition, mental health intervention collaborates with social media companies to develop tools that promote positive self-identity.

This research has revealed the complexity and potential risks of self-glorifying behavior. In future research, more attention can be paid to the mental health of different groups, and mental health should also be combined with technological exploration. The contradiction of social media lies in that it both encourages the expression of one's true self and forces people to conform to virtual standards. Perhaps, the real breakthrough does not lie in criticizing the platform, but in helping users build a healthier self-awareness in the digital world.

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