

Research Article

The Mediating Roles of Beauty Ideals and Upward Comparison in Social Media's Influence on Body Image Anxiety Among Chinese High School Students

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Abstract

This comprehensive study delves into the intricate relationship between problematic social media use and the escalating issue of body image anxiety among Chinese high school students. By meticulously analyzing the roles of beauty ideal internalization and upward social comparison as critical mediating factors, the research uncovers a troubling pattern where a substantial number of students are drawn into a vortex of endless social media browsing and comparative behavior. This engagement is not only linked to an excessive allocation of time on social media platforms but also to the exacerbation of body image anxiety. The findings poignantly illustrate the strong correlations between the propensity for upward social comparison, the absorption of societal beauty ideals, and the subsequent increase in body image anxiety experienced by the student population. The study's revelations underscore the imperative need for a multifaceted intervention strategy that involves the active participation of social media platforms, educational institutions, and the family unit to cultivate a digital ecosystem that supports mental health and well-being. By addressing the root causes of beauty ideal internalization and upward social comparison, the research aims to equip stakeholders with the insights necessary to design and implement effective solutions, fostering an online environment that nurtures positive body image perceptions and reduces the psychological distress associated with problematic social media use, ultimately contributing to a healthier and more resilient generation of young adults.

Keywords

Social Media, Body Image Anxiety, Adolescence, Beauty Ideal Internalization, Upward Social Comparison, Mental Health

1. Introduction

The concerning rise in problematic social media use among adolescents has brought to light the potential detrimental effects on their mental health, particularly in relation to Body Image Anxiety (BIA) [11]. Social media platforms, known for their frequent promotion of beauty standards that are often idealized and unrealistic, can lead to users internalizing these ideals [10]. This internalization process is influenced by var-

ious factors, including the social and cultural environment, self-objectification, and the Social Comparison Theory (SCT) [6].

The social and cultural environment plays a significant role, with societal pressure and the media's portrayal of beauty contributing to the internalization of these ideals [7]. Self-objectification occurs when individuals constantly ex-

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pose themselves to idealized images, leading them to view themselves as objects to be evaluated [10]. The SCT suggests that social media facilitates upward social comparison, where individuals compare themselves unfavorably to others, leading to increased body dissatisfaction and anxiety [9].

2. Literature Review

The rapid proliferation of social media platforms has also transformed the way adolescents, particularly high school students, interact with technology and each other. This age group is especially vulnerable to the influences emanating from these digital spaces, given their developmental stage characterized by heightened self-consciousness and sensitivity to peer feedback [11]. This study aims to investigate the relationship between Problematic Social Media Use (PSMU) and BIA among high school students, focusing on the mediating role of beauty ideal internalization and upward social comparison.

2.1. The Vulnerability of Adolescents to Social Media Influences

The rapid proliferation of social media platforms has also transformed the way adolescents, particularly high school students, interact with technology and each other. This age group is especially vulnerable to the influences emanating from these digital spaces, given their developmental stage characterized by heightened self-consciousness and sensitivity to peer feedback [11]. This study aims to investigate the relationship between PSMU and BIA among high school students, focusing on the mediating role of beauty ideal internalization and upward social comparison.

2.2. Theoretical Foundations for Understanding Social Media's Impact on Body Image

The theoretical framework of this study is grounded in an amalgamation of theories that collectively aim to elucidate the complex relationship between social media use, the internalization of beauty ideals, the practice of upward social comparison, and the development of BIA. The Internalization of Beauty Ideals Theory (BIT) posits that individuals absorb societal beauty standards from their surroundings, which in turn leads to a sense of dissatisfaction with their own physical appearance [3]. Building upon this, the SCT proposes that individuals engage in comparative evaluations with others, which can result in feelings of inadequacy and anxiety [8]. The Self-Objectification Theory (SOT) furthers the understanding by suggesting that individuals often adopt a perspective of viewing themselves as objects to be judged, primarily focusing on their physical appearance and thereby heightening body image concerns [2]. Lastly, the Mimetic Environment Theory (MET) offers an insight into how the media constructs a simplified version of reality that signifi-

cantly shapes individuals' perceptions and behaviors. Together, these theories provide a comprehensive lens through which to examine the psychological implications of social media on body image.

2.3. Addressing Limitations and Future Directions in Research

In the context of social media, individuals receive and internalize information about beauty standards from the media environment, which shapes their own perception of beauty and can contribute to BIA [9]. Apart from idealized images, other factors such as beauty filters, plastic surgery advertisements, and fitness influencers may also contribute to BIA [3]. Future research should explore the role of these factors in conjunction with social media. While previous research has primarily focused on women's body image anxiety, evidence suggests that men are also susceptible to the influence of social media and may experience similar concerns [5]. This emphasizes the need to include both genders in research on PSMU and BIA.

Existing research on the relationship between PSMU and BIA exhibits several limitations that this study aims to address. Firstly, there is a notable gender bias, with many studies predominantly focusing on women's experiences while neglecting the perspectives and experiences of men [10]. Additionally, there is often an oversight of the differences in social media usage patterns among various groups, such as students and adults, which can significantly impact the outcomes and interpretations of research findings [7]. Addressing these gaps, this study aims to provide a nuanced and multifaceted understanding of the complex relationship between social media use, beauty ideal internalization, upward social comparison, and body image anxiety for high school students.

Based on the literature review, the following hypotheses are proposed:

H1: PSMU is positively associated with BIA.

H2: Students who use social media more frequently show more BIA.

H3: Upward social comparison mediates the relationship between PSMU and BIA.

This study employed semi-structured interviews with five high school students to explore the relationship between PSMU and BIA. The interviews covered topics such as social media habits, sources of body image anxiety, and coping strategies. The findings revealed several key insights, aligning with existing research [4, 7, 11].

3. Materials and Methods

The study involved 79 participants, including 59 females and 20 males, predominantly high school students. Of these participants, 54 were in their second year, 7 in their third year, and 18 in their first year of high school. Additionally, 22 out of

the 79 participants were boarding students. The majority of participants reported daily use of social media, with WeChat being the most frequently used application, followed by QQ. The participants predominantly engaged with content in the beauty category, including high-fashion bloggers, makeup tutorials, and outfit inspiration.

First, use closed questions to gather basic information about the participants, including their gender, grade, frequency of social media usage, and the type of content they engage with the most. Second, employ rating scale questions to explore whether they frequently compare themselves with influencers or others on social media, as well as their attitudes towards posting selfies and photos online. Third, utilize an open questionnaire to examine the drawbacks and adverse impacts of PSMU on participants' lives, such as appearance-related anxiety.

Participants who wished to conduct additional research left their phone numbers on the questionnaire to adhere to the experiment's ethical guidelines. Subsequently, researchers interviewed participants whose responses contained unique or advanced insights that warranted further investigation. They employed a structured interview format to enhance the reliability and validity of the findings. The interview questions covered topics such as balancing appreciation for others' beauty while preserving a positive self-image in the social media age, coping mechanisms for managing appearance-related anxiety stemming from social media, causes of appearance-related anxiety on social platforms, preferences for browsing mobile applications versus friends' updates, among others.

4. Results

The results support the hypotheses that PSMU is positively associated with BIA, and that students who use social media more frequently show more body image anxiety. Furthermore, the upward social comparison mediates the relationship between PSMU and BIA. These findings underscore the importance of addressing the impact of social media on body image anxiety among students.

4.1. Theoretical Foundations for Understanding Social Media's Impact on Body Image

Our findings indicate that a significant proportion of participants (53.25%) engage in unconscious browsing of mobile phone applications and checking friends' updates without recollection of the frequency. This suggests a potential lack of awareness and control over social media usage, which could lead to excessive time spent on these platforms and potential negative consequences. Furthermore, 75.32% of participants reported inadvertently extending their use of mobile social networks without realizing it, highlighting the potential for excessive social media usage.

4.2. Body Image Comparisons and Perceptions

Moreover, 48.17% of participants expressed concern about others' opinions after posting photos on social media platforms, indicating the impact of social comparison on participants' self-perception and emotional well-being. Additionally, 32.47% of participants compared their appearances and body shapes with those of individuals on social media, and 34.17% agreed with the statement that "girls or guys on social media are generally better looking and in better shape." These findings underscore the prevalence of social media as a source of body image comparison, leading to potential dissatisfaction and anxiety among participants.

4.3. The Role of Upward Comparison and Beauty Ideals

Interestingly, research has consistently shown that exposure to idealized body images on social media can contribute to negative body image perceptions and increased body image anxiety [11]. However, our findings suggest that the relationship between exposure to unrealistic beauty standards and BIA is not as strong as previously thought ($r=0.206, p=0.072$). The upward comparison and beauty idealization showed a strong correlation ($r=0.411^{***}, p<0.001$), which could be explained by the feelings of inadequacy and low self-esteem during the comparison [1, 11].

Table 1. Correlations among Upward Comparison, Beauty Idealization and Body Image Anxiety.

Variable		Upward Comparison	Beauty Idealization	Body Image Anxiety
Upward Comparison	Pearson's r	-		
	p-value	-		
Beauty Idealization	Pearson's r	0.411***	-	
	p-value	<.001	-	
Body Image Anxiety	Pearson's r	0.550***	0.206	-
	p-value	<.001	0.072	-

4.4. Survey Findings on Social Media Engagement and Body Image

The surveys revealed that all participants experienced varying degrees of body image anxiety, characterized by self-doubt, lack of confidence, and sensitivity to others' opinions. This finding is consistent with research highlighting the influence of social media on promoting unrealistic beauty standards and fostering negative body image perceptions [5, 10].

4.5. Coping Strategies

The participants employed various strategies to cope with body image anxiety, some participants attempted to control their social media usage through physical separation or utilizing focus-enhancing apps [11]. This approach aligns with the concept of self-regulation, a crucial factor in managing media exposure and its impact on body image [10]. Several participants emphasized the importance of cultivating self-confidence and adopting a rational perspective towards online comparisons [12]. This aligns with research suggesting that positive self-perception and self-acceptance are protective factors against the negative effects of social media. Besides, participants mentioned the value of discussing their concerns with friends and seeking understanding and encouragement [10]. This finding underscores the importance of social support in mitigating body image anxiety and promoting mental well-being. Some participants actively filtered their social media content to avoid exposure to negative body image ideals. This approach reflects the importance of critically evaluating online content and seeking out positive and affirming messages.

5. Discussion

The findings of our study provide compelling evidence that excessive smartphone use is associated with heightened body image anxiety among students. Our participants' tendency to engage in upward comparison and their adherence to beauty idealization on social media platforms further exacerbated their body image concerns. These results underscore the urgent need for a multi-faceted approach to address this issue, which includes platform responsibility, family education, and school education.

5.1. Platform Responsibility

Social media platforms play a significant role in shaping the body image perceptions of their users. Given the prevalence of body image anxiety among our participants, it is crucial for these platforms to take a proactive stance in promoting a healthier online environment. Social media platforms should strengthen content moderation, filter out harmful content, and

implement features promoting healthy usage [11]. For adolescents, time limits and notifications can help them to maintain a balanced approach to social media engagement.

5.2. Family Education

Parents have a pivotal role in shaping their children's attitudes towards body image and social media usage. It is essential for parents to foster a supportive and open environment where children feel comfortable discussing their body image concerns. Parents should guide their children in using social media responsibly, fostering healthy digital literacy and self-regulation skills, as well as promoting self-acceptance and body positivity [11].

5.3. School Education

Schools have a responsibility to educate students about the impact of social media on body image and mental health. Incorporating digital citizenship education into the curriculum can help students develop the necessary skills to navigate the online world effectively. This education should emphasize critical thinking, media literacy, and the promotion of positive body image [10]. By equipping students with these tools, schools can empower them to make informed decisions about their social media usage and foster a more positive body image.

Future research could expand the sample size and employ diverse methodologies to further explore the nuanced relationship between social media usage and body image anxiety. Additionally, longitudinal studies could examine the long-term impact of social media on body image development and mental health outcomes.

6. Conclusions

This study highlights the significant impact of problematic social media use on body image anxiety among Chinese high school students. Findings indicate a correlation between unconscious browsing, social media comparison, and heightened body image concerns. The study underscores the importance of addressing these issues through collaborative efforts between platforms, families, and schools. Future research should explore the long-term effects of social media on body image and mental health, with a focus on gender-inclusive approaches.

In summary, this study contributes to the understanding of the complex relationship between social media use and body image anxiety among high school students, emphasizing the need for proactive measures to promote healthy online engagement and positive body image development.

Abbreviations

PSMU	Problematic Social Media Use
BIA	Body Image Anxiety
SCT	Social Comparison Theory
BIT	Beauty Ideals Theory
SOT	Self-Objectification Theory
MET	Mimetic Environment Theory

Conflicts of Interest

All authors disclosed no relevant relationships.

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