

The Impact of Image Comparison on The Self-Identity Formation of Female University Students on Social Media

Ningkun Guan^{1,*}, Yuhan Shang²

¹School of Interior Design, Shanghai Institute of Visual Arts, Shanghai, China

²School of Broadcasting and Hosting Arts, Shanghai Theatre Academy, Shanghai, China

*Corresponding author: 2630712@dundee.ac.uk

Abstract:

Nowadays, social media is not only an important way for female college students to express themselves but also the main source and way to receive and obtain information. Different platforms push various ‘perfect images’ to female users through algorithms, and constantly create labels and topics about beauty, such as ‘white, thin and young’, ‘straight shoulders’, and so on. Female college students are in an important stage of self-identity construction, during which they will consciously or unconsciously compare themselves with others, and these comparisons affect their aesthetic concepts views, and understanding of themselves. This thesis employs a qualitative research methodology to examine and elucidate the nexus between image comparison on social media and women’s identity. To this end, it conducts in-depth interviews with 11 female university students representing diverse academic disciplines, institutional affiliations, and geographical locations. The study found that there are differences in personal preferences and purposes when female college students choose comparison objects and that the comparison of images on social media has different positive or negative impacts on psychological aspects, and there are individual differences in the degree of impacts, but the comparison of images does not have a direct impact on individual behavior, and generally stays at the psychological level of the individual: in addition, the social activities in daily life and study and other activities of personal growth nowadays can effectively reduce the impacts of social media.

Keywords: Social media, female college students, image comparison, self-identity.

1. Introduction

Due to the popularity of social media, a large number of women are sharing and exchanging their thoughts on different platforms, especially female students who are extremely curious and sensitive to current hot topics and emerging issues, and social media is undoubtedly very attractive for them. Therefore, these female college students are very active on social media and become the main users of the various platforms, and their aesthetic concepts, identities, and self-perceptions are largely shaped by these platforms. Comparisons between users on these platforms are very common, with many bloggers sharing edited and packaged content and videos that successfully capture the attention of young girls while following and emulating the images shown can have a positive impact and bring about change, such behavior is often accompanied by phases of self-doubt and anxiety. These negative emotions can hurt their self-identity and psychological state, thus affecting their overall well-being and quality of life. Furthermore, the specific features and algorithmic mechanisms of dif-

ferent online platforms, in addition to the presence of filters, likes, and comments, serve to reinforce the significance of one’s online appearance. This may potentially intensify the concerns of college-aged women regarding the monitoring of their appearance and the evaluation of their appearance by others.

2. Literature Review

Body image refers to one’s subjective evaluation of one’s body and perception of one’s self-identity. [1]. For a long time, mass media have been shaping and reinforcing the so-called ‘ideal body image’ by selectively presenting certain types of appearance or body features. In the age of social media, images, videos, and textual content about appearance and body image can be found everywhere on various platforms, subtly influencing individuals’ perceptions of appearance and body image. Social media has an impact on aesthetics and appearance in society, with research showing that the more social media is used, the more women objectify themselves. It can hurt young women’s self-identity expression and appearance anxiety

[2].

After the metoo movement, digital feminist activism became an important part of feminism. Women are gradually finding their own identities and acquiring identities through social media, and young women as a user group have developed strong empathy with their peers and acquired a group identity through social media. Thus, socially transformed feminism is a result of the co-construction of the intersection of internet availability and feminist implementation. social platforms such as Instagram and other pop-feminist, neo-liberal feminist locations obscure certain sentiments of the women's liberation movement, such as feminism's quest for collective action, structural change, and a focus on labor equity. At the same time, these platforms reinforce certain feminist sentiments of fashionable, self-responsible, self-expressive feminism. Conformity to media fervor More and more people are posting photos that focus on women's body image to conform to the aesthetics of social media platforms [3].

This phenomenon is widespread and is gradually developing into a societal problem that creates a widespread impression [4]. Contemporary women are simultaneously controlled by Media Surveillance, horizontal and Peer Surveillance, and Self-Surveillance. Photographic filters and beauty apps are becoming increasingly important to women, and digital and media culture and post-feminist modes of subjectivity are coming together to produce a novel and extraordinarily powerful regulatory gaze on women. In this, a distinctive postfeminist and neoliberal perspective can be seen to be emerging [5]. Female college students, on the other hand, are at a stage of increasing physical and psychological maturity and are more susceptible to the current mainstream aesthetic and socio-cultural concepts of social media to gain a certain sense of identity. The most obvious manifestation of young women's appearance anxiety is their relatively high concern for improving their appearance. Therefore, it is of interest to explore the factors influencing restrictive eating behaviors among female college students [6]. In past research, a research survey that distributed questionnaires was used to investigate the relationship between SNS and teenage girls' body image anxiety self-objectification, and personal identity search. It was found that among a range of activities, SNS selfies had the most negative emotional impact and exacerbated young women's body image anxiety [7].

Liu pointed out that the aesthetic trend of women's bodies on social media platforms has shifted from the pursuit of 'white, thin and young' to 'healthy beauty' [8]. This shift seems to be the result of women's own choices, but it is influenced by platform algorithms, opinion leaders, and capital propaganda. In the process of pursuing 'healthy

beauty', women may fall into a new round of body discipline and self-body scrutiny, which may affect their self-will and identity. Dou and Li found that the impact of social media use on women's body imagery in early adulthood is a dynamic process [9]. In the early stage of use, women are easily stimulated by the platform's 'perfect appearance' message, which leads to negative cognitions and emotions such as self-objectification and body dissatisfaction. As the use of the platform deepens, female users will adopt various strategies to avoid negative influences, and ultimately promote more positive body imagery perceptions and health behaviors. Thus, in light of the current literature, researchers are committed to exploring the relationship between social media and women's appearance anxiety from multiple perspectives and have developed a more mature and complete theoretical framework.

3. Method

3.1 Research Questions

Despite significant development and research in the area of female college students' appearance anxiety and identity, several unanswered questions remain, one of the most thought-provoking of which is how comparisons of images on social media affect the identity of female college students.

With the development of Internet technology, social media has gradually become one of the main channels for female college students to socialize and obtain information, and at the same time, it has brought about the influence of mass media on this group of female college students. Social media emphasize the norms of 'beauty', and female college students' body performances on social media and the business model of network capital and the big data and computing mechanism of the Internet platform have gradually formed, causing female college students to have anxiety about their appearance and confusion about their identities. Social media also plays an important role in deepening women's self-objectification. The more frequently social media are used, the easier it is for women to see themselves as objects to be viewed and evaluated by others, and to evaluate and perceive themselves. Internalization of ideal beauty is an important mediating factor in this process. Social media indirectly deepens women's self-objectification by influencing the degree of internalization of ideal beauty [10].

In addition to social media becoming a magnifying glass for appearance, online platforms have also increased the possibility of 'changing' one's image, with various beauty and AI face-changing editors becoming an important means of constructing one's own identity for female students. The reasons for this phenomenon include but are

not limited to, media representations of the objectification of women’s bodies and the propagation of misconceptions about body image. In addition, the unique algorithmic mechanism of contemporary social media provides college women with more idealized body image material than traditional social media, deepening aesthetic norms and inducing more college women to make upward comparisons of their looks, which further influences the image of college women to produce changes that gradually evolve into the monitoring of their bodies.

Michel Foucault mentioned the idea that the human body is the object and target of power. The human body is gradually manipulated, molded, and regulated when it is influenced by power. It is not difficult to find that women have always been in the state of subordinate ‘being disciplined’ in any country and at any time [11]. Yao Liangshang’s study found that body image comparisons on social networking sites negatively affected female college students’ restrictive eating behaviors [12]. This body image comparison is essentially a manifestation of other people’s gaze, which puts women under great pressure on social media. Xiao Lei’s study showed that upward appearance comparisons in social networks exacerbate appearance anxiety among college students and that self-esteem level moderates the effect of social comparison tendencies on appearance anxiety [13]. Do female college students perceive a change in their identity in the process of having their appearance defined by Internet social media, and what are the specific effects of appearance comparisons on female college student’s mental health and social interactions? While past research has focused on the causes and

prevention of appearance anxiety among college women, the relationship between appearance and college women’s mental health and sense of identity remains relatively understudied. During the research, one cannot help but think about the specific impact and psychological effects of look comparisons on social media on the identity of female college students, and to fill the gap in this field, this thesis aims to analyze the following questions based on the methodology of qualitative research:

How do comparisons of images on social media affect college women’s identity?

What are the specific effects of image comparisons on college women’s mental health and social interactions?

How do different types of comparisons (e.g., upward comparisons, downward comparisons) affect identity differently?

This paper tries to explore in depth how the comparison of images on social media affects the identity of female college students in many ways and from many perspectives, and it is expected that it can further provide new perspectives and theoretical foundations in this field.

3.2 Interview Method

In this study, a targeted sampling method was adopted to conduct semi-structured in-depth interviews with 10 female university students. The age range of the interviewees is 20-23 years old, which meets the identity criteria of female college students. The information of the interviewees is detailed in Table 1, and the interviews were conducted in a combination of online and offline methods, with each interviewer taking about 30 minutes or more.

Table 1. Respondent information

Respondent No.	Professions	Hours of social media use/day	Comparison Frequency	comparison object
1	Tourism management	1-2 hours	Lesser	Celebrities
2	Broadcasting and hosting arts	2-3 hours	Lesser	Comparisons with people from similar backgrounds in their own lives or people they admire
3	Broadcasting and hosting arts	Less than 1 hour	Seldom	Internet celebrity
4	English	1-2 hours	Seldom	Internet celebrity
5	Concert	3-4 hours	Extremely high	Internet celebrity
6	Choreography	Less than 2 hours	Lesser	Internet celebrities, bloggers
7	Interior design	3-4 hours	Extremely high	Internet celebrities, bloggers
8	literary	Less than 1 hour	Lesser	Bloggers, and occasionally their favorite celebrities
9	Graphic design	4-5 hours	Extremely high	Peer

10	Civil engineering	1-2 hours	Seldom	Internet celebrities, bloggers
11	Maths	1-2 hours	Extremely high	Peer

The interviews were conducted in the form of in-depth interviews with questions and outlines. Interviews were conducted on the following topics: ‘Social media use and beauty comparisons’, ‘Whether appearance changes are voluntary or subject to external pressure’, ‘Frequency and manner of beauty comparisons’, and ‘What is the best way to compare beauty in social media?’ ‘Which features of social media have a greater impact on identity’. After completing the interviews, the researcher further analyzed the audio recordings and texts of the interviewees in a more sequential order.

4. Result

4.1 Usage Habits And Information Acquisition

Identity is the process by which individuals recognize themselves and define their relationship with society, and image comparison on social media may have a significant impact on this process. According to social comparison theory, individuals tend to compare themselves with others to assess their social and personal attributes [14]. In a social media environment, such comparisons may be more frequent and intense. ‘I will follow beauty bloggers’ make-up and outfits and thus learn from them.’

Interviewee 1, demonstrated that identity is a dynamic process and that comparisons of images on social media can be used as objects of learning and imitation to influence the identity construction of female university students. Such comparisons may influence individuals’ perceptions of their social roles and personal values through continuous social interactions and feedback loops. Interviewee 4 mentioned that ‘for example, if you swipe to that kind of light make-up or face-less video, you will subconsciously think about why others look so good without heavy make-up retouching.’ reveals how social media can inspire a desire for an idealized appearance and questioning of self-image, which in turn may affect their sense of identity.

According to the interview data, the interviewees said that the software they use most in their daily lives are platforms such as Jieyin, Xiaohongshu, and Weibo, through which they mainly obtain entertainment content, life information, and online social interactions with other people, of which interviewees 5 said, ‘I usually use Jieyin, Xiaohongshu, and Weibo. All three can entertain me well.’ Since Xiaohongshu is already targeting young women as a user group, body image standards on Xiaohongshu are

also more diverse and seem to be more inclusive and open than other platforms.’ (Interviewee 7).

Jieyin to watch some small entertainment videos, Weibo to check out the hot searches, and Xiaohongshu to get all kinds of information.’ By listing different platforms and their uses, the interviewees demonstrated how they use social media for entertainment and information acquisition, which reflects their awareness of the versatility of social media and its effective use. However, respondents also indicated that beauty comparisons on social media are an unavoidable topic and that they are consciously or unconsciously influenced by the ‘perfect image’ of themselves. The direct impact of comparison is revealed in the words of interviewee 3: ‘For example, if I see a blogger who is very skinny and good at make-up, I wonder what I would look like if I could be that skinny. I’ll think about whether I could look the same in the same way, and whether I’d want to go out and buy a similar dress. Examples like this still happen all the time.’ (Interviewee 6) it is this comparison that may lead individuals to become dissatisfied with their appearance and seek to change to conform to the beauty standards displayed on social media. Beauty displays and comparisons on social media have a profound effect on an individual’s self-image and identity. Interviewee 5 stated, ‘For example, if a blogger has a great body, they compare themselves to the blogger.’ Such comparisons may exacerbate an individual’s dissatisfaction with his or her appearance, which in turn affects his or her self-identity and self-esteem.

4.2 Social Media Traits And Beauty Standards

There are different preferences and biases in an individual’s use of social software, and social media algorithms recommend content based on a user’s preferences, leading to easier access to content that meets a particular beauty standard, thus reinforcing the perception of such a standard.

Specific features of social media platforms, such as filters, likes, and comments, also play an important role in individual identity. Not only do these features magnify the importance of appearance, but they may also exacerbate users’ sensitivity to self-monitoring of appearance and evaluation by others. ‘One might see a very beautiful girl and like her eyes, and think if only my eyes were like that.’ (Interviewee 2).

Respondent 2’s answers suggest that appearance comparisons may stimulate envy of specific appearance traits,

which may translate into subconscious dissatisfaction and psychological stress about one's appearance. It may lead to individuals becoming dissatisfied with their appearance, affecting their psychological well-being and altering their social behaviors, such as avoiding certain social situations or excessive use of filters and photo-retouching software. Respondent 8 even stated 'I think it creates anxiety about the person I was before I used p-touch. This is why I was very negative about social media at the time and have actively stayed away since.'

4.3 Coping Strategies And Social Support

When faced with beauty comparisons on social media, individuals adopt different coping strategies. Interviewee 2 mentioned that 'also unconsciously compare appearance with others, but more appreciatively.' This positive coping style helps to mitigate the possible negative effects of social media. At the same time, social support plays an important role in mitigating these emotions. Respondent 2's attitude of "appreciation" is a positive coping style that helps to alleviate the stress caused by comparison. At the same time, this social support from family and friends plays a key role in providing emotional comfort and enhancing feelings of self-worth. 'There will be changes, as one gets older, and also with the pressures of academic employment, attention is naturally distracted. And of course, one gradually gets a clearer picture of oneself.' (Interviewee 9) Interviewee 10 made a similar point 'Real life is fuller and busier there's no time to care about what make-up to wear or not to wear'.

In addition, each respondent mentioned the importance of real-life experiences, such as internships and clubs, which enrich their perceptions of themselves as well as help individuals achieve personal growth and can be effective in how they change their opinions about beauty standards and perceptions of self-identity.

In summary, social media has a profound impact on shaping women's body image, sense of self, and identity. While social media platforms provide women with space to display and express themselves, they also exacerbate women's body anxiety and self-objectification. Future research should pay more attention to how to help women cope more positively with the negative impacts of social media by improving their media literacy.

5. Conclusion

The significance of the findings of the study is summarised below: It is known that external comparisons on social media can have a significant impact on the identity of female college students. Female college students tend to fall into upward comparisons (i.e., comparing themselves to people who are more beautiful than themselves)

can negatively affect identity. Although some may engage in downward comparisons (i.e., comparing themselves to people who are less beautiful than they are), downward comparisons may still have a positive impact on identity, which may lead to other mental health problems. Therefore it is not sufficient to show that downward comparison is a benign comparison. Meanwhile, social support may mitigate the negative effects of beauty comparisons on identity. These results have important implications for the understanding and application of the field of how comparisons of images on social media affect the identity of female college students as well as the impact of appearance comparisons on the mental health of female college students, the relationship between different types of comparisons (e.g., upward comparisons, downward comparisons) and identity, and the relationship between female college students and social media, and guide future research and practice.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

References

- [1] Slade P.D. What is body image? *Behavior Research and Therapy*, 1994, 32(5): 497-502.
- [2] Jasmine F. Instagram use and young women's body image concerns and self-objectification: Testing mediational pathways, *New Media & Society*, 2018, 20(4): 1380-1395
- [3] Savolainen, L., Vitermark, J., & Boy, J. D. Filtering feminisms: Emergent feminist visibilities on Instagram. *New Media & Society*, 2022, 24(3): 557-579.
- [4] Liu S. The effect of social media on female's appearance anxiety, Hangzhou New Channel School, Hangzhou, China, 2023.
- [5] Gill R. *The Routledge Handbook of Contemporary Feminism* Surveillance is a Feminist Issue, 2019.
- [6] Running Zhu, Huiting Yan & Zunbin Huo, *The Impact of Short Video Addiction on Self-identity: Mediating Roles of Self-esteem and Appearance Anxiety*, 2024
- [7] Jasmine Fardouly & Lenny R. Vartanian, *Negative comparisons about one's appearance mediate the relationship between Facebook usage and body image concerns*, 2014.
- [8] Liu Q. From "White, skinny, and Young" to "Healthy and Beautiful": A Study on the Changes in the Body Appearance of Women in Xiaohongshu, Master's thesis, Sichuan International Studies University, 2023.
- [9] Du Y., & Li J. A new species of the genus *Pseudourostyla* (Hymenoptera, Braconidae). *Social Media Use on Body Image Disturbance in Emerging Adult Women*. *New Media Research*, 2023, 9(15): 27-31.
- [10] Den L. *The Impact of Social Media Use on Female Self-Objectification: The Mediating Role of Ideal Beauty*

Internalization, Master's thesis, Huazhong University of Science and Technology, 2019.

[11] Michel Foucault, *Surveiller et punir: Naissance de la prison*, 1975.

[12] Yao L. The Relationship Between Body Image Comparison and Restrictive Eating Among Female College Students on Social Networking Sites: A Moderated Mediation Model, 2019.

[13] Xiao L. Who is More Beautiful? The Effect and Psychological Mechanism of Upward Appearance Comparison on Appearance Anxiety Among College Students on Social Networks, 2023.

[14] Festinger L. A theory of social comparison processes. *Human Relations*, 1954, 7, 117-140.