



Research Article

The Impact of Social Media on Adolescent Self-Esteem: A Mixed-Methods Analysis of Gender Differences and Psychological Outcomes

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Abstract

Social media is increasingly becoming a ubiquitous part of the lives of teenagers, which affects their mental health, especially their self-esteem. The research explores the correlation between social media use and adolescents' self-esteem, including gender variations in psychological development. It was a mixed-methods design that used both quantitative and qualitative methods to evaluate the effectiveness of social media on self-esteem in 500 adolescents (250 boys and 250 girls) aged 14-18. The findings show that there is a strong negative association between self-esteem and the use of social media among both sexes, with females exhibiting a greater degree of body image dissatisfaction and emotional distress. Although social comparison is done by both male and female adolescents, females tend to compare themselves through their appearance, resulting in low self-esteem. Males, in contrast, are more inclined to compare their success and accomplishments, which have certain effects on their self-esteem, but to a lesser extent. The emotional well-being was also an important mediator between social media use and self-esteem, and the more the adolescents were emotionally distressed, the lower their self-esteem. The findings suggest the need for gender-specific interventions to address the negative psychological effects of social media and promote healthier engagement with digital platforms.

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1. INTRODUCTION

The emergence of social media sites has radically altered the manner in which teenagers engage with the world and provided a new avenue of social integration, self-expression and identity development (Avci *et al.*, 2024). Social networks, such as Instagram and Facebook, have become an inseparable part of the everyday routine of youth, acting as a source of creativity, self-expression, and interaction with peers (Avci *et al.*, 2024). Nevertheless, these platforms are of great concern with how they affect the psychological well-being of adolescents, especially self-esteem and body image. Teenagers are at a very critical developmental phase, and their self-esteem is especially prone to change, so being exposed to social media can only contribute to the development of existing insecurities or develop new ones (Demetriou *et al.*, 2025; Digennaro & Tescione, 2024).

One of the psychological constructs that affects the emotional well-being of adolescents, their social relationships, and mental health in general is self-esteem (Campodónico & Aucapiña, 2024). Self-esteem can be defined as the subjective assessment of one's value, and it is influenced by both external (e.g., social feedback, media exposure) and internal (e.g., personal achievements) factors (Parveen *et al.*, 2025). Being on the brink of coming out, adolescents are especially susceptible to changes in self-esteem as they need to be accepted by peers and society. Social media is full of social comparison opportunities due to its continuous stream of photos, comments and likes, which can significantly alter the perception of adolescents (Chen, 2025). Social Comparison Theory is a theory introduced by Festinger (1954) according to which people analyse their abilities and opinions through comparison with other people (Festinger, 1954). Within the realm of social media, such comparisons tend to be made with idealised depictions of the lives of others, such as extensively edited images of physical appearance, material success, and social status (Lim & Tan, 2024, p. 223).

The consequences of such comparisons are often negative psychological factors, particularly in cases when adolescents feel that they are not up to the standards they find on the internet (Burnell *et al.*, 2024). It has been found that the use of social media is linked to reduced self-esteem, dissatisfaction with their bodies, and anxiety, as adolescents tend to compare their lives with idealised and perfect images, they observe online (Demetriou *et al.*, 2025).

Although social media does not have a uniform impact on self-esteem in either male or female adolescents, some evidence suggests that females are more prone to developing negative psychological implications connected to looks and body image (Tennfjord *et al.*, 2025). It has been proven that female adolescents are more susceptible to the influence of social comparison in the physical appearance domain, especially on visual-based social media platforms such as Instagram (Papageorgiou *et al.*, 2022; Pedalino & Camerini, 2022).

The unrealistic beauty, fitness and success promoted on these platforms contribute to feelings of inadequacy and dissatisfaction with appearance (Digennaro & Tescione, 2024; Papageorgiou *et al.*, 2022, p. 2). Researchers discovered that increased social media consumption was associated with reduced body satisfaction and self-esteem among adolescent

girls, who are more prone to internalise societal beauty ideals (Papageorgiou *et al.*, 2022, p. 2; Steinsbekk *et al.*, 2020).

Conversely, male teenagers are also prone to social comparison, although their concerns are often related more to success, status and social accomplishment (Yue *et al.*, 2024). Although body image issues exist in males, females often report significantly higher body dissatisfaction (Napp, 2025). According to research, males tend to compare themselves in terms of success and social status, particularly career success and material wealth (Luthar *et al.*, 2013, p. 1553).

This form of comparison may result in feelings of failure or inadequacy, whereby adolescents perceive their achievements as inferior to the success stories they observe on social media (Samari *et al.*, 2022, p. 9). Therefore, gender differences in social media use involve variations in comparison patterns and psychological outcomes (Rahmadiansyah *et al.*, 2022, p. 2).

Another significant aspect of social media and self-esteem is its emotional impact. Younger individuals who experience negative emotions (such as jealousy, loneliness, and social anxiety) due to social media interactions may become more prone to decreased self-esteem (Blanc-Brillon *et al.*, 2025). According to Kross *et al.*, teenagers who spent more time on Facebook reported decreases in subjective well-being, particularly due to negative social comparisons. Women were more likely to report distress related to social acceptance and body image, whereas men reported distress related to success and social achievement (Kross *et al.*, 2013).

The need for external validation is frequently associated with these emotional reactions and is readily available on social media (Gualda *et al.*, 2026). In addition, online exclusion and cyberbullying further contribute to the negative impacts of social media on adolescent self-esteem (Sharma & Sharma, 2026). Adolescents who experience bullying or exclusion may develop increased anxiety, depression, and social withdrawal, which negatively affect their self-esteem (Kowalski *et al.*, 2014).

Social media amplifies the extent and impact of bullying because adolescents remain constantly connected to their peers and public opinion. Continuous exposure to negative comments or exclusion can cause lasting psychological harm, especially during the vulnerable developmental stage of adolescence (Sequeira *et al.*, 2025; Sharma & Sharma, 2026).

Considering these aspects, it is essential to examine gender-specific mental effects of social media use. Although both boys and girls are at risk of social comparison, body image dissatisfaction, and emotional distress, the manifestation of these effects differs by gender (Papageorgiou *et al.*, 2022). These gendered experiences are critical for designing interventions tailored to adolescents' needs in the context of social media use.

Research Questions:

1. What impact does the use of social media have on the self-esteem of male and female adolescents?
2. Does gender-specific psychological consequences exist related to social media use, particularly concerning body image and social comparison?

- How does emotional well-being influence the relationship between social media use and self-esteem?

2. METHODOLOGY

The study adopts a mixed-method approach, combining quantitative and qualitative research to examine the relationship between social media use and self-esteem among adolescents. A questionnaire was administered to a large sample, followed by semi-structured interviews with a subset of participants to capture in-depth experiences.

Participants:

The sample consisted of 500 adolescents (250 boys and 250 girls) aged 14–18 years from three urban high schools. Participants represented diverse socioeconomic and educational backgrounds. Informed consent was obtained, and confidentiality was maintained.

Measures:

- Self-Esteem:** Rosenberg Self-Esteem Scale (10 items, 4-point Likert scale).
- Social Media Usage:** Social Media Usage Questionnaire (Tiggemann & Slater, 2013).
- Body Image Concerns:** Body Image Satisfaction Scale (Cash *et al.*, 2004).
- Emotional Well-Being:** Positive and Negative Affect Schedule (Watson *et al.*, 1988).

Procedure:

- Quantitative Data:** Questionnaires administered anonymously in classrooms.
- Qualitative Data:** Interviews conducted with 30 adolescents (15 males, 15 females), each lasting approximately 30 minutes.

Data Analysis:

- Quantitative:** Descriptive statistics, independent t-tests, and Pearson correlation.
- Qualitative:** Thematic analysis to identify patterns in gender differences and psychological effects.

Results:

Demographic Information:

Participants included 50% males and 50% females, with a mean age of 16.2 years. Most reported spending 2–4 hours daily on social media platforms such as Instagram and Facebook.

Self-Esteem Scores:

Gender differences in self-esteem were analysed using the Rosenberg Self-Esteem Scale (Pullmann & Allik, 2000). Descriptive statistics for male and female adolescents are presented below.

Table 1: Descriptive Statistics for Self-Esteem Scores by Gender

| Gender | Mean Self-Esteem Score | Standard Deviation | t-score | p-value |
|--------|------------------------|--------------------|---------|---------|
| Male | 28.55 | 4.79 | 0.869 | 0.528 |
| Female | 28.37 | 4.64 | | |

A t-test comparing self-esteem scores between male and female adolescents revealed no significant difference between the two groups, $t(498) = 0.869, p = 0.528$. This implies that there is no significant difference in the overall self-esteem of the male and female adolescents. Nevertheless, additional studies will look at gender disparities in body image issues and emotional status, which would offer a better understanding of the role of gender on self-esteem.

Correlation with Self-Esteem of Social Media Usage:

In order to determine the relationship between social media use and self-esteem, Pearson conducted a correlation analysis of these two variables. The findings showed that there was a strong negative association between the use of social media and the self-esteem scores of both genders.

Table 2: Correlations Between Social Media Usage and Self-Esteem

| Scale | Pearson Correlation | Sig. (2-tailed) |
|------------------------------------|---------------------|-----------------|
| Self-Esteem vs Social Media Usage | -0.345** | 0.000 |
| Self-Esteem vs Body Image Concerns | -0.543** | 0.000 |

* $p < .05$, ** $p < .01$

The correlation between social media use and self-esteem is negative ($r = -0.345, p = 0.000$) therefore it is possible to say that high self-esteem is linked with low social media use. This observation is in line with prior studies that have explored social comparison in social media (Blanc-Brillon *et al.*, 2025, p. 2), although some research indicates no direct connection between self-esteem and the frequency of social media use (Blanc-Brillon *et al.*, 2025). Also, the negative correlation between body image concern and self-esteem is strong ($r = -0.543, p = 0.000$), meaning that adolescents who are more discontented with their body image are also those who report low self-esteem. This association was especially noticeable among female adolescents.

Qualitative Findings

The semi-structured interviews were able to bring out a number of common themes with regard to the psychological effects of social media. Numerous female participants indicated that they were pressured by the beauty standards on such platforms as Instagram, where there are often many influencers and celebrities who share highly edited and idealised photographs. One of the women mentioned: “I always compare myself to the people I follow, I think that I am not pretty enough, and sometimes I do not even want to post anything because I think that people will judge me because of my appearance.” Conversely, male participants explained social comparison in terms of success and social status, especially that of peers and influencers. Another man said: “All people on social media are so successful. It is difficult not to compare myself to them and think that I am losing.” These qualitative findings indicate that the psychological impact of social media on self-esteem varies according to gender, where females are more concerned with body image and males with success and achievement.

3. DISCUSSION

The research aimed to determine the relationship between social media use and self-esteem among adolescents, focusing on gender variations. The results indicate that social media use has both social and health impacts on males and females (Ho, 2025). Nevertheless, gender differences were observed in the types of social comparison and the psychological consequences of social media exposure (Ho, 2025).

Although both male and female adolescents experienced decreased self-esteem associated with social media use, females were more concerned about body image and appearance-related social comparisons (Blanc-Brillon *et al.*, 2025, p. 9; Steinsbekk *et al.*, 2020). The relationship between social media use and body image dissatisfaction was stronger among females, supporting previous studies (Demetriou *et al.*, 2025; Taylor & Armes, 2024). These findings suggest that females may be more vulnerable to the negative effects of social media on self-esteem due to the emphasis on appearance-based validation on platforms such as Instagram and Facebook (Albayrak & Özbek, 2025).

In males, social comparison on social media primarily involved success, achievement, career progress, social status, and material wealth, along with some appearance-related comparisons (Blanc-Brillon *et al.*, 2025, p. 19; Samari *et al.*, 2022, p. 9). Male adolescents reported feelings of inadequacy and low self-esteem when they perceived themselves as less successful than their peers (Aronsen & Bjørnnes, 2025, p. 8; Mustafa *et al.*, 2024).

Mood and Social Media:

One of the most significant findings of this research is the mediating role of emotional well-being in the relationship between social media use and self-esteem. Adolescents who reported higher levels of emotional distress—such as loneliness, jealousy, and anxiety—due to social media use also reported lower self-esteem. This finding aligns with Kross *et al.* (2013), who suggested that social media use can trigger negative emotions that subsequently influence self-esteem.

Gender-based differences in emotional responses were also evident during the interviews. Girls were more likely to experience emotional distress related to body image (Haugan *et al.*, 2021, p. 613). These differences highlight the need for gender-specific interventions to address the distinct psychological vulnerabilities of each group.

Implications for Practice:

The findings of this study have important implications for educators and mental health professionals working with adolescents. Since social media negatively affects self-esteem—particularly in relation to body image among females—there is a need for interventions that promote media literacy and help adolescents develop healthier relationships with social media (Gordon *et al.*, 2021; Mazzeo *et al.*, 2024, p. 2589; Niklová & Zošáková, 2024, p. 208; Xu *et al.*, 2023, p. 149).

Educators can play a crucial role in helping students critically evaluate media content and understand the unrealistic standards of beauty and success often portrayed on social media (Higdon,

2022, p. 9; Muhsal *et al.*, 2024, p. 20). Mental health professionals should provide gender-sensitive counselling and support for adolescents experiencing negative emotions and body dissatisfaction due to social media use. Interventions focused on self-compassion and body positivity may be particularly effective—enhancing body appreciation and reducing self-criticism among females, and improving body satisfaction among males (Mahon & Hevey, 2021, p. 8, 2022).

Study Limitations:

Although this research provides valuable insights into the relationship between social media use and adolescent self-esteem, several limitations should be acknowledged. First, the sample was limited to urban adolescents, which may restrict the generalisability of the findings to rural populations or culturally diverse groups.

Second, the study employed a cross-sectional design, which prevents the establishment of causal relationships. Future research should adopt longitudinal approaches to better understand the long-term effects of social media on self-esteem. Finally, the study relied on self-reported data, which may be subject to social desirability bias or inaccuracies. Future studies could incorporate behavioural measures, such as tracking actual social media usage or using objective assessments of emotional responses, to enhance reliability.

4. CONCLUSION

This study will give an in-depth analysis of how social media affects teenage self-esteem, and especially gender differences. The findings indicate that although social media influences both male and female adolescents in terms of self-esteem, psychologically the impact is more intense in females, especially when it comes to body image and appearance. The paper also indicates that emotional well-being in the context of mediating the effects of social media on self-esteem, with emotional distress adding to the adverse effect. The results support the necessity to implement gender-specific interventions to help adolescent males and females overcome the specific psychological issues they encounter when using social media. Future studies should examine the long-term consequences of social media on adolescent development and determine the usefulness of intervention strategies to enhance media literacy and emotional health. Finally, although social media can bring people together and enable them to express themselves, the effects of social media on self-esteem, especially in adolescents, are a burning question that needs to be tackled by researchers and professionals alike. We can learn more about the gendered experiences of using social media and implement more effective strategies to address the negative psychological impact of this media and encourage more healthy media use.

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