

Adolescent Eating Disorders and Social Media Influences on Body Image Perception Patterns

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Abstract

Background: Eating disorders among adolescents have become a growing public health concern, with increasing evidence suggesting that social media exposure significantly influences body image perceptions. Frequent engagement with appearance-focused content, unrealistic beauty standards, and peer comparisons may contribute to body dissatisfaction and unhealthy eating behaviors among adolescents.

Objective: To examine the relationship between social media influences, body image perception patterns, and the prevalence of eating disorders among adolescents.

Methodology: A cross-sectional study was conducted among **300 adolescents** aged 12–17 years from selected schools. Data were collected using structured questionnaires assessing social media usage, body image perception, eating attitudes, and disordered eating behaviors. Statistical analyses were performed to determine associations between social media exposure and eating disorder risk.

Findings: The results indicated that **68%** of participants used social media for more than 3 hours daily, while **61%** reported body dissatisfaction. Symptoms associated with eating disorders were identified in **29%** of adolescents. Approximately **57%** reported frequent appearance-based comparisons on social media platforms. A significant positive association was observed between prolonged social media exposure, negative body image perceptions, and eating disorder symptoms ($p < 0.05$).

Conclusion: Social media influences significantly affect body image perception patterns and contribute to the development of eating disorder symptoms among adolescents. Early intervention, media literacy education, and positive body image promotion are essential strategies for reducing eating disorder risk.

Keywords: Adolescents, Eating Disorders, Social Media, Body Image Perception, Body Dissatisfaction, Eating Attitudes, Mental Health, Appearance Comparison, Health Promotion, Youth Behavior.

1 Introduction

Eating disorders among adolescents have emerged as a significant public health concern worldwide due to their adverse physical, psychological, and social consequences. Disorders such as anorexia nervosa, bulimia nervosa, and binge-eating disorder commonly develop during adolescence, a critical developmental period characterized by rapid physical, emotional, and cognitive changes [1]. These conditions are associated with nutritional deficiencies, impaired growth, depression, anxiety, low self-esteem, and increased risk of long-term health complications [2]. Recent evidence suggests that sociocultural influences, particularly social media exposure, play a substantial role in shaping adolescents' perceptions of body image and eating behaviors.

Social media platforms have become integral components of adolescents' daily lives. Applications such as Instagram, TikTok, Snapchat, and Facebook provide continuous exposure to appearance-focused content, celebrity images, and idealized body standards [3]. While social media offers opportunities for communication and self-expression, it may also promote unrealistic beauty expectations that contribute to body dissatisfaction and unhealthy eating attitudes [4]. Adolescents

frequently compare their physical appearance with images presented online, often leading to negative self-evaluation and increased pressure to achieve socially desirable body shapes [5].

Body image perception refers to an individual's thoughts, feelings, and attitudes toward their physical appearance. A positive body image is associated with healthy self-esteem and psychological well-being, whereas negative body image has been identified as a major risk factor for eating disorders [6]. Studies have demonstrated that adolescents exposed to appearance-oriented social media content are more likely to experience body dissatisfaction, engage in dieting behaviors, and develop disordered eating patterns [7]. The widespread use of photo-editing tools and image filters further reinforces unrealistic appearance standards, intensifying concerns regarding body image among young people.

The prevalence of eating disorders has increased considerably over the past decade, coinciding with rapid growth in social media usage. Research indicates that prolonged social media engagement is associated with increased body surveillance, appearance comparison, and internalization of thin or muscular ideals [8]. These behaviors may contribute to unhealthy weight-control practices, emotional distress, and reduced quality of life among adolescents. Consequently, healthcare professionals, educators, and policymakers have recognized the need for preventive interventions targeting social media literacy and positive body image development [9].

Understanding the relationship between social media influences and body image perception patterns is essential for addressing eating disorder risk among adolescents. By identifying the mechanisms through which social media affects self-perception and eating behaviors, effective strategies can be developed to promote mental well-being and healthy body image attitudes. Such efforts are crucial for reducing the prevalence of eating disorders and supporting adolescent health in the digital era [10].

1.1 Objectives

1. To assess the influence of social media usage on body image perception patterns among adolescents.
2. To determine the association between body image dissatisfaction and eating disorder symptoms among adolescents.

2 Literature review

1. Social Media Usage and Body Image Perception

Recent studies have highlighted the growing influence of social media on adolescent body image perception. Frequent exposure to idealized images, beauty trends, and appearance-focused content on platforms such as Instagram, TikTok, and Snapchat has been associated with increased body dissatisfaction and negative self-evaluation. Adolescents often engage in social comparison behaviors that contribute to unrealistic body expectations and reduced self-esteem [11,12].

2. Social Media and Eating Disorder Symptoms

Research conducted between 2022 and 2026 indicates a significant relationship between prolonged social media engagement and eating disorder symptoms. Exposure to content promoting thinness, dieting practices, and fitness ideals may encourage unhealthy weight-control behaviors, restrictive eating, and emotional distress. Adolescents who spend extended periods on social networking platforms are more likely to exhibit symptoms associated with anorexia nervosa, bulimia nervosa, and binge-eating disorder [13,14].

3. Appearance Comparison and Body Dissatisfaction

Appearance-based comparison has emerged as a major mechanism linking social media use to body image concerns. Studies suggest that adolescents frequently compare themselves with influencers, celebrities, and peers portrayed online. Such comparisons often result in body dissatisfaction, lower self-worth, and increased vulnerability to disordered eating behaviors [15].

4. Prevention and Intervention Strategies

Current evidence supports the implementation of media literacy education, positive body image programs, and mental health promotion initiatives to reduce the harmful effects of social media. School-based interventions and parental guidance

have shown promising outcomes in improving adolescents' resilience against unrealistic beauty standards and preventing eating disorder development [16,17].

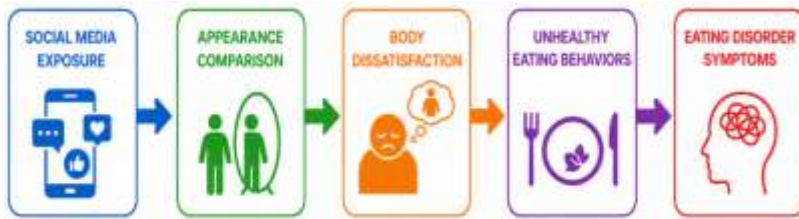


Figure 1. Conceptual Relationship Between Social Media Use and Eating Disorders

Figure 1 illustrates the conceptual pathway linking social media exposure to eating disorder symptoms among adolescents. Frequent engagement with appearance-focused content encourages social comparison and internalization of unrealistic beauty ideals. These processes contribute to body dissatisfaction and negative self-perception. Consequently, adolescents may adopt unhealthy eating behaviors, including restrictive dieting and disordered eating practices. The framework emphasizes the importance of media literacy and body image interventions in reducing eating disorder risk and promoting adolescent well-being.

3 Methodology

3.1 Research Design

A **cross-sectional descriptive research design** was adopted to examine the relationship between social media influences, body image perception patterns, and eating disorder symptoms among adolescents. This design was selected to assess the prevalence of body dissatisfaction and eating disorder behaviors while identifying associations with social media usage patterns at a specific point in time [18].

3.2 Study Setting and Population

The study was conducted in selected secondary schools among adolescents aged **12–17 years**. A total of **300 participants** were recruited using a stratified random sampling technique. The sampling method ensured equal representation across age groups and gender categories. Adolescents with diagnosed psychiatric disorders or severe medical illnesses were excluded from the study to minimize confounding factors [19].

3.3 Data Collection Instruments

Data were collected using a structured questionnaire comprising four sections: demographic characteristics, social media usage patterns, body image perception assessment, and eating disorder screening. Social media exposure was measured based on daily usage duration and engagement with appearance-related content. Body image perception was assessed using a standardized body dissatisfaction scale, while eating disorder symptoms were evaluated using a validated eating attitudes questionnaire [20].

3.4 Data Collection Procedure

After obtaining ethical approval and informed consent from parents and participants, questionnaires were administered in classroom settings under researcher supervision. Participants completed the survey anonymously to ensure confidentiality and encourage honest responses. The collected questionnaires were reviewed for completeness before data entry and analysis.

3.5 Data Analysis

Data were analyzed using statistical software. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize participant characteristics. Chi-square tests and Pearson correlation analyses

were employed to examine associations between social media exposure, body dissatisfaction, and eating disorder symptoms. Statistical significance was established at $p < 0.05$.

Table 1. Demographic and Social Media Characteristics of Participants (N = 300)

Variable	Category	Frequency (n)	Percentage (%)
Age	12–14 Years	126	42.0
	15–17 Years	174	58.0
Gender	Male	152	50.7
	Female	148	49.3
Social Media Usage	< 3 Hours/Day	96	32.0
	≥ 3 Hours/Day	204	68.0
Body Dissatisfaction	Present	183	61.0
	Absent	117	39.0

Table 1 presents the demographic and social media characteristics of the participants. Most adolescents (58%) were aged 15–17 years, while gender distribution was nearly equal. A substantial proportion (68%) reported using social media for more than three hours daily. Body dissatisfaction was observed in 61% of participants, indicating a high prevalence of negative body image perceptions. These findings suggest that prolonged social media exposure may influence body image concerns among adolescents.



Figure 2. Methodological Framework

Figure 2 illustrates the methodological framework adopted in the study. Following participant recruitment, adolescents completed structured questionnaires assessing social media exposure, body image perceptions, and eating disorder symptoms. Data were collected systematically and analyzed using statistical methods to identify relationships among study variables. The framework demonstrates the sequential process used to evaluate the influence of social media on body image dissatisfaction and eating disorder risk among adolescent participants.

4 Results & Discussion

The results of the study highlight the influence of social media exposure on body image perception patterns and eating disorder symptoms among adolescents. Data collected from 300 participants were analyzed to assess social media usage, body dissatisfaction, appearance comparison behaviors, and eating disorder risk. The findings revealed a high prevalence of prolonged social media use and body image concerns among adolescents. Significant associations were identified between social media exposure, body dissatisfaction, and eating disorder symptoms. The results are presented through tables and figures for comprehensive interpretation.

Table 2. Social Media Usage and Body Dissatisfaction Among Adolescents (N = 300)

Variable	Frequency (n)	Percentage (%)
Social Media Usage ≥ 3 Hours/Day	204	68.0
Social Media Usage < 3 Hours/Day	96	32.0

Body Dissatisfaction Present	183	61.0
Body Dissatisfaction Absent	117	39.0

Table 2 shows that 68% of adolescents used social media for three or more hours daily. Body dissatisfaction was reported by 61% of participants, indicating that a considerable proportion of adolescents experienced negative perceptions regarding their physical appearance. The findings suggest that prolonged social media exposure may contribute to increased body image concerns and dissatisfaction among adolescents.

Table 3. Association Between Social Media Exposure and Eating Disorder Symptoms

Social Media Exposure	Eating Disorder Symptoms Present (%)	Eating Disorder Symptoms Absent (%)
≥ 3 Hours/Day	71	29
< 3 Hours/Day	24	76

Table 3 demonstrates a significant relationship between social media exposure and eating disorder symptoms. Adolescents who used social media for three or more hours daily showed a substantially higher prevalence of eating disorder symptoms (71%) compared with those who spent less time on social networking platforms (24%). These findings indicate that excessive social media engagement may increase vulnerability to disordered eating behaviors.

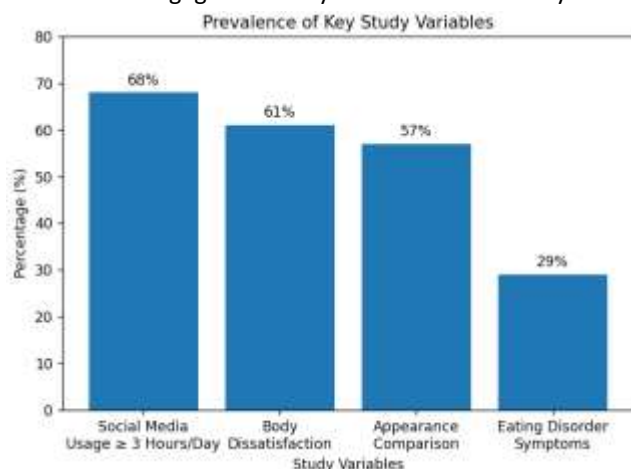


Figure 3. Prevalence of Key Study Variables

Figure 3 illustrates the prevalence of major variables examined in the study. Social media usage exceeding three hours daily was the most common factor observed among participants. High levels of body dissatisfaction and appearance comparison behaviors were also identified. Eating disorder symptoms were present in nearly one-third of adolescents. The figure highlights the progression from extensive social media engagement to negative body image perceptions and increased eating disorder risk.

Table 4. Relationship Between Body Dissatisfaction and Eating Disorder Symptoms

Body Image Status	Eating Disorder Symptoms Present (%)	Eating Disorder Symptoms Absent (%)
Body Dissatisfaction Present	74	26
Body Dissatisfaction Absent	18	82

Table 4 reveals a strong association between body dissatisfaction and eating disorder symptoms. Among adolescents reporting body dissatisfaction, 74% exhibited symptoms of eating disorders, whereas only 18% of those with positive body image perceptions demonstrated similar symptoms. These findings suggest that body dissatisfaction is a significant predictor of eating disorder risk among adolescents.



Figure 4. Overall Relationship Between Social Media Use and Eating Disorders

Figure 4 presents the conceptual pathway linking social media use to eating disorder symptoms. Exposure to appearance-focused content encourages comparison with peers, celebrities, and influencers. Continuous comparison contributes to body dissatisfaction and negative self-evaluation. As dissatisfaction increases, adolescents may engage in unhealthy eating behaviors, including restrictive dieting and disordered eating practices. These behaviors eventually increase the likelihood of developing eating disorder symptoms, emphasizing the need for preventive interventions and media literacy education.

Discussion

The findings of this study demonstrate a significant relationship between social media exposure, body image dissatisfaction, and eating disorder symptoms among adolescents. A high proportion of participants reported prolonged social media use, which was associated with increased appearance comparison and negative body image perceptions. Adolescents experiencing body dissatisfaction were more likely to exhibit disordered eating behaviors and eating disorder symptoms. These results support previous research indicating that appearance-focused social media content can negatively influence self-esteem and body perception. The study highlights the importance of promoting media literacy, positive body image, and psychological support to reduce eating disorder risk among adolescents.

Conclusion

Eating disorders among adolescents are increasingly influenced by social media exposure and body image perception patterns. The present study revealed that excessive social media use was associated with higher levels of appearance comparison, body dissatisfaction, and eating disorder symptoms. Adolescents who frequently compared their appearance with online images were more vulnerable to developing unhealthy eating behaviors and negative self-perceptions. These findings emphasize the need for early preventive interventions targeting digital media influences and body image concerns. Schools, parents, healthcare professionals, and policymakers should collaborate to promote responsible social media use, media literacy education, and positive body image development. Such strategies can help reduce eating disorder risk, improve mental well-being, and support healthy adolescent growth and development in the digital age.

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