



Psychological Correlates of Social Media Use: Self-Perception and Self-Esteem among Early Adolescents in Dubai

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Abstract

Over the past decade, social media has become deeply embedded in the everyday lives of adolescents. Beyond simple communication, these platforms now shape how young people explore identity, perceive their appearance, and evaluate their overall sense of self. In this context, the present study explored the psychological correlates of social media engagement among Indian early adolescents residing in Dubai, with particular attention to physical self-perception and self-esteem. A quantitative cross-sectional research design was employed using a sample of 102 students studying in Grades 6 to 8 in private English-medium schools in Dubai. Participants were selected using a stratified random sampling technique. Standardized instruments used in the study included the Social Media Engagement Questionnaire (SMEQ), the Body Appreciation Scale for Adolescents (BASA), and the Rosenberg Self-Esteem Scale (RSES). Data were analyzed using descriptive statistics, Pearson correlation analysis, and independent samples t-tests. The findings indicated a statistically significant positive association between social media engagement and physical self-perception. However, no significant relationship was observed between social media usage and self-esteem. Gender differences in both physical self-perception and self-esteem were not statistically significant. A significant negative relationship was found between physical self-perception and self-esteem. Appearance-based comparison did not significantly predict body dissatisfaction. The findings highlight the complex and culturally shaped nature of social media's psychological influence on adolescents within multicultural environments such as Dubai. The study contributes to the growing literature on adolescent digital behavior and underscores the need for balanced digital engagement and supportive social environments to promote healthy self-development.

Keywords: social media, self-perception, self-esteem, adolescents, Dubai

1. Introduction

Early adolescence is widely recognized as a sensitive developmental period marked by significant physical, cognitive, and emotional transitions. During this period, individuals become increasingly sensitive to peer evaluation, social approval, and physical appearance. At the same time, the rapid growth of digital technologies has reshaped the environments in which adolescents interact, communicate, and develop their sense of identity.

Social networking platforms such as Instagram, Snapchat, TikTok, and YouTube have become integral components of adolescents' daily routines. These platforms provide opportunities for self-expression, social interaction, and identity exploration. At the same time, they expose adolescents to highly curated and often idealized representations of appearance and lifestyle. Such exposure may influence how adolescents perceive themselves and evaluate their self-worth.

A growing body of research indicates that social media environments frequently foster processes of social comparison. Adolescents frequently compare their physical appearance, popularity, and lifestyle with those portrayed by peers, influencers, or celebrities online. These comparisons may contribute to body dissatisfaction, appearance anxiety, and fluctuations in self-esteem. However, social media can also have positive effects by facilitating peer support, social connection, and identity exploration.

The psychological impact of social media may vary depending on cultural context. Adolescents living in multicultural environments may experience unique social influences that shape their digital experiences. Dubai represents a highly diverse and globalized setting where adolescents are exposed to both traditional cultural values and global media influences. Indian adolescents living in Dubai may navigate dual cultural expectations while engaging with digital media environments.

Despite the increasing prevalence of social media use among adolescents in the Middle East, relatively limited research has examined how social media engagement influences self-perception and self-esteem among adolescents in Dubai. Understanding these relationships is important for promoting healthy digital habits and supporting adolescent wellbeing. Therefore, the present study investigates the relationship between social media usage, physical self-perception, and self-esteem among early adolescents in Dubai.

2. Review of Literature

Adolescence is widely recognized as a developmental stage during which self-concept and identity formation undergo significant transformation. With the widespread adoption of digital technologies, social media has emerged as a powerful influence on adolescents' psychological development.

Research has shown that exposure to idealized images on social networking platforms can increase appearance comparison and internalization of socially constructed beauty standards (Perloff, 2014; Tiggemann & Slater, 2014). Adolescents who frequently engage in upward social comparisons may experience greater body dissatisfaction and lower self-esteem.

Vogel et al. (2014) found that individuals who engage in frequent comparison with others on social networking sites report lower levels of self-esteem and higher levels of depressive symptoms. Similarly, Fardouly and Vartanian (2016) emphasized that social media environments amplify appearance-focused comparisons due to the highly visual nature of platforms such as Instagram.

Research also indicates that specific online behaviors such as posting selfies, editing photographs, and monitoring peer feedback can influence adolescents' perceptions of their own appearance (Chua & Chang, 2016). Barry et al. (2017) reported that adolescents who frequently engage in appearance-focused social media activities tend to experience greater appearance anxiety.

Digital validation mechanisms such as likes, comments, and follower counts have also been identified as influential factors in adolescents' emotional wellbeing. Nesi and Prinstein (2015) observed that adolescents often interpret online feedback as indicators of social acceptance or rejection, which may influence their self-evaluation.

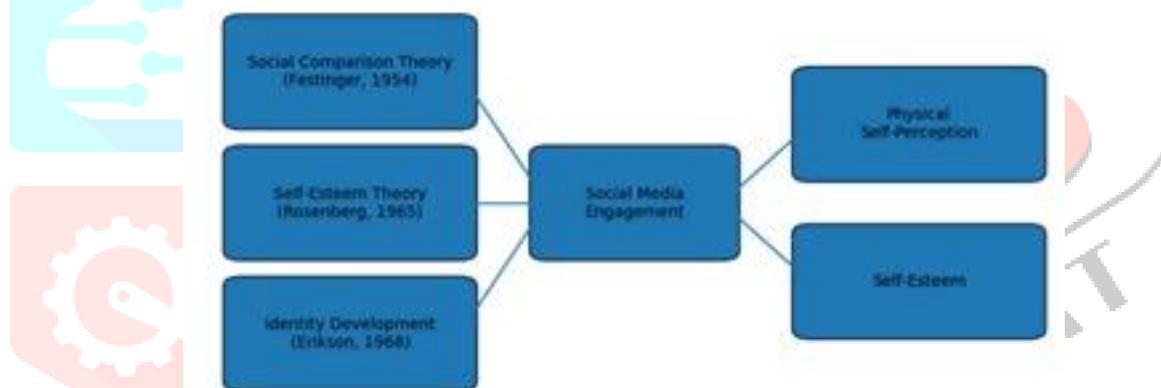
Recent studies have highlighted the broader psychological effects of social media use. Sampasa-Kanyinga and Lewis (2015) found that excessive social media use was associated with higher levels of psychological distress and reduced life satisfaction among adolescents. Twenge and Campbell (2018) also reported links between heavy digital media use and increased anxiety and depressive symptoms.

More recent research has emphasized the importance of cultural context in understanding the psychological effects of social media. Studies conducted in multicultural societies indicate that adolescents may be exposed to diverse beauty ideals and cultural norms that influence their perceptions of body image and self-worth (Rahman & AlSayeed, 2021).

Emerging research from 2020 onwards suggests that social media can have both positive and negative effects on adolescents depending on the nature of their online engagement. Positive interactions with peers and supportive online communities may strengthen self-confidence and social connectedness (Odgers & Jensen, 2020). Conversely, exposure to unrealistic appearance standards and cyber-comparison may contribute to psychological distress (Kelly et al., 2022).

Despite these growing insights, limited research has examined these dynamics among Indian adolescents living in Dubai. Given the unique cultural and social context of this population, further investigation is necessary to understand how social media engagement relates to adolescents' self-perception and self-esteem within this setting.

Figure 1. Conceptual Framework of the Study



Note. The framework illustrates how social media engagement influences adolescents' physical self-perception and self-esteem. The model is informed by Social Comparison Theory (Festinger, 1954), Self-Esteem Theory (Rosenberg, 1965), and Identity Development Theory (Erikson, 1968).

3. Objectives

The present study was conducted with the following objectives:

To assess patterns of social media usage among early adolescents.

To examine levels of physical self-perception among adolescents.

To measure levels of self-esteem among adolescents.

To analyze the relationship between social media usage, physical self-perception, and self-esteem.

To examine gender differences in physical self-perception and self-esteem.

4. Research Methodology

Research Design

The study adopted a descriptive and correlational research design to examine relationships between social media usage, physical self-perception, and self-esteem among early adolescents.

Variables

Table 1. Variables in the Study

Variable Type	Variables	Description
Independent Variable	Social Media Engagement (SMEQ)	Measures frequency and intensity of social media use
Dependent Variables	Physical Self-Perception (BASA)	Assesses body appreciation and physical self-concept
	Self-Esteem (RSES)	Measures global self-esteem
Demographic Variables	Age	Participants' age in years
	Gender	Male / Female
	Grade Level	School grade (6, 7, 8)
	School Type	Private English-medium schools
	Social Media Platform Usage	Instagram, Snapchat, TikTok, YouTube

Note. SMEQ = Social Media Engagement Questionnaire; BASA = Body Appreciation Scale for Adolescents; RSES = Rosenberg Self-Esteem Scale.

Hypotheses

H₀₁: There is no significant relationship between social media usage and physical self-perception.

H₀₂: There is no significant relationship between social media usage and self-esteem.

H₀₃: There are no significant gender differences in physical self-perception or self-esteem.

H₀₄: There is no significant relationship between physical self-perception and self-esteem.

H₀₅: There is no significant relationship between appearance-based comparison and body dissatisfaction.

Population and Sample

The study sample consisted of 102 early adolescents aged 11–14 years studying in Grades 6 to 8 in private English-medium schools in Dubai.

Sampling Technique

A stratified random sampling method was used to ensure proportional representation across gender and grade levels.

Inclusion Criteria

Participants were required to be between 11 and 14 years of age, studying in Grades 6 to 8, enrolled in private English-medium schools in Dubai, and actively using at least one social media platform.

Exclusion Criteria

Participants were excluded if they fell outside the specified age range, did not use any social media platforms, or had diagnosed clinical mental health conditions.

Instruments

The following standardized instruments were used in the study:

Social Media Engagement Questionnaire (SMEQ) – A 5-point Likert scale measuring frequency and intensity of social media engagement.

Body Appreciation Scale for Adolescents (BASA) – A 13-item scale measuring positive body image and physical self-perception.

Rosenberg Self-Esteem Scale (RSES) – A widely used 10-item scale measuring global self-esteem.

Data Collection Procedure

Data were collected using an online questionnaire distributed through Google Forms. Parental consent and student assent were obtained prior to participation. Participation was voluntary and confidentiality of responses was maintained.

Data Analysis

Data were analyzed using descriptive statistics, Pearson correlation analysis, and independent samples t-tests. Statistical significance was evaluated at $p < .05$.

Descriptive Statistics

4.2.1 Demographic Characteristics

Table 3-Demographic Characteristics of Participants

Variable	Category	Frequency (N)	Percentage (%)
Age	10–11	3	2.9%
	11–12	5	4.9%
	12–13	25	24.5%
	13–14	69	67.6%
Gender	Male	37	36.3%
	Female	65	63.7%
Grade	Grade 6	6	5.9%
	Grade 7	37	36.3%
	Grade 8	59	57.8%

Table 4.1 presents the distribution of participants across age, gender, and grade level, providing a clear demographic overview of the sample. It shows the exact frequencies and percentages for each category, indicating that most participants were 13–14 years old, that females formed a larger portion of the sample, and that Grade 8 had the highest representation. These values provide a clear and precise demographic profile of the sample

Fig 2-Showing Age Distribution

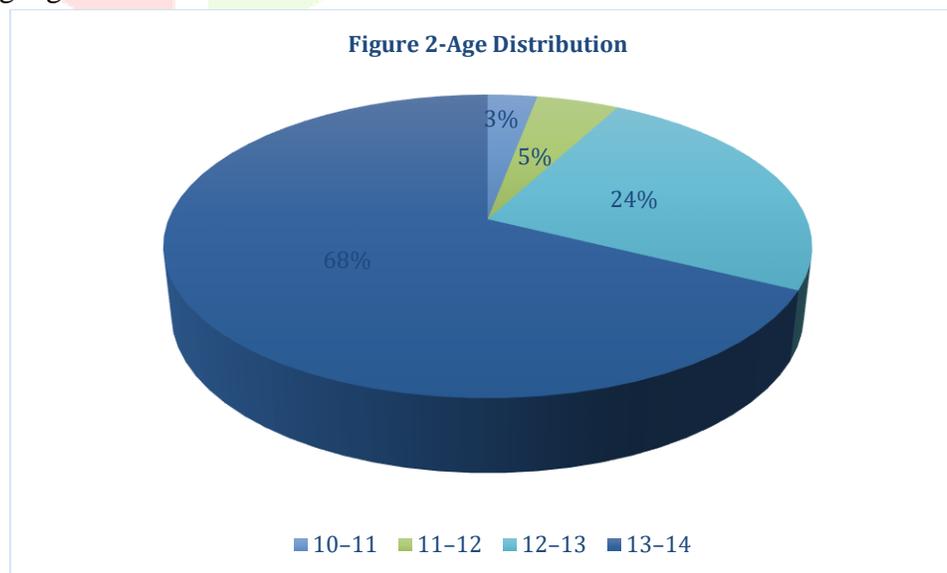


Figure (2)-Age distribution of participants.

The figure (2) visually illustrates that the largest proportion of participants were in the 13–14 age range, with progressively smaller representation in the younger age groups.

Interpretation.

The sample consisted of 102 early adolescents, with the majority (67.6%) aged 13–14 years. Females represented 63.7% of the sample, while males accounted for 36.3%. Most participants were enrolled in Grade 8 (57.8%).

4.2.2 Descriptive Statistics for Study Variables

Table 4 (a)-Descriptive Statistics for Social Media Usage, Physical Self-Perception, and Self-Esteem

Variable	N	Mean	SD	Minimum	Maximum
Social Media Usage	102	20.65	6.82	10	37
Physical Self-Perception	102	43.23	11.32	11	55
Self-Esteem	102	16.25	4.55	9	30

The table 4(a) shows the basic descriptive statistics for the three study variables. Social media usage and self-esteem both fall in the moderate range, while physical self-perception has the highest average score. The minimum and maximum values indicate that participants' responses covered a wide range across all variables.

Interpretation.

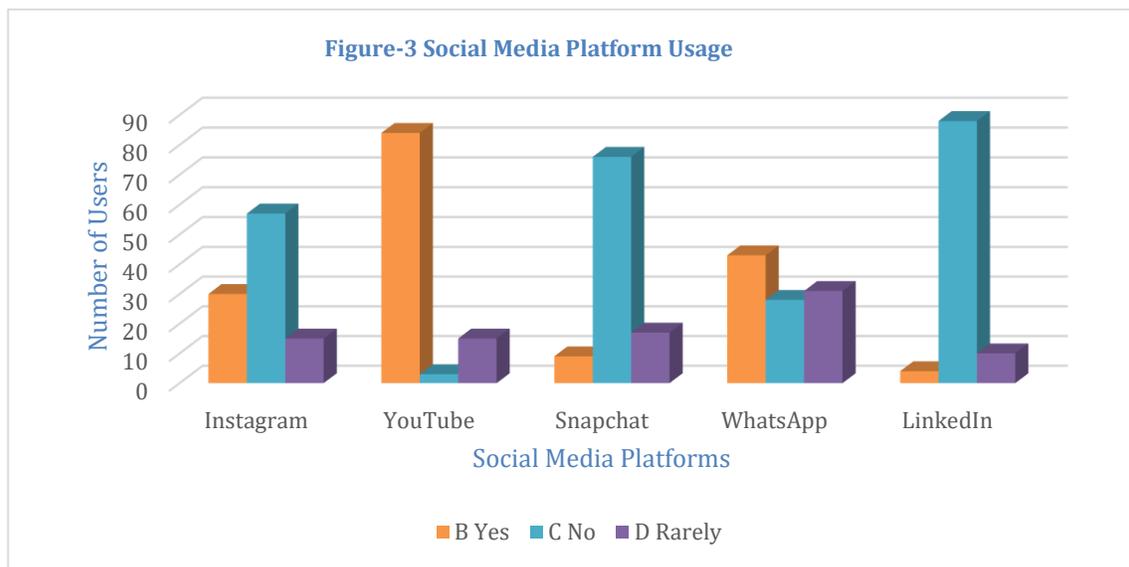
Participants reported moderate levels of social media usage ($M = 20.65$). Physical self-perception scores showed considerable variability ($SD = 11.32$), while self-esteem scores were moderate ($M = 16.25$).

4.2.3 Social Media Platform Usage

Table 4(b)-Frequency and Percentage of Social Media Platform Usage

Platform	Response	Frequency (N)	Percentage (%)
Instagram	Yes	30	29.41%
	No	57	55.88%
	Rarely	15	14.71%
YouTube	Yes	84	82.35%
	No	3	2.94%
	Rarely	15	14.71%
Snapchat	Yes	9	8.82%
	No	76	74.51%
	Rarely	17	16.67%
WhatsApp	Yes	43	42.16%
	No	28	27.45%
	Rarely	31	30.39%
LinkedIn	Yes	4	3.92%
	No	88	86.27%
	Rarely	10	9.80%

The table 4(b) summarizes how frequently participants used different social media platforms. YouTube was the most used platform, followed by WhatsApp and Instagram, while Snapchat and LinkedIn showed much lower levels of engagement. The distribution of "Yes," "No," and "Rarely" responses indicate clear differences in platform popularity among early adolescents.



The figure 3 shows the overall pattern of how often each social media platform is used. YouTube is visually the most used platform, while Instagram and WhatsApp show moderate use, and Snapchat and LinkedIn appear much less frequently used. The bars clearly highlight differences in popularity across platforms without focusing on exact numbers.

Interpretation.

YouTube was the most frequently used platform (82.35%), followed by WhatsApp (42.16%) and Instagram (29.41%). Snapchat and LinkedIn showed minimal engagement, which is expected for this age group.

4.2.4 Normality Testing

Table 4(c)-Normality Statistics for Self-Esteem and Physical Self-Perception

Statistic	Self-Esteem	Physical Self-Perception
N (Valid)	106	106
Mean	16.40	41.59
SD	4.522	13.85
Skewness	0.178	-1.518
SE (Skewness)	0.235	0.235
Kurtosis	-0.203	1.902
SE (Kurtosis)	0.465	0.465
p-value	0.024	< .001
Minimum	9	0
Maximum	30	55

The table 4(c) provides a summary of the normality statistics for self-esteem and physical self-perception. Self-esteem shows values close to a normal distribution, while physical self-perception is more negatively skewed and peaked. The p-values indicate that both variables deviate from normality.

5. Results

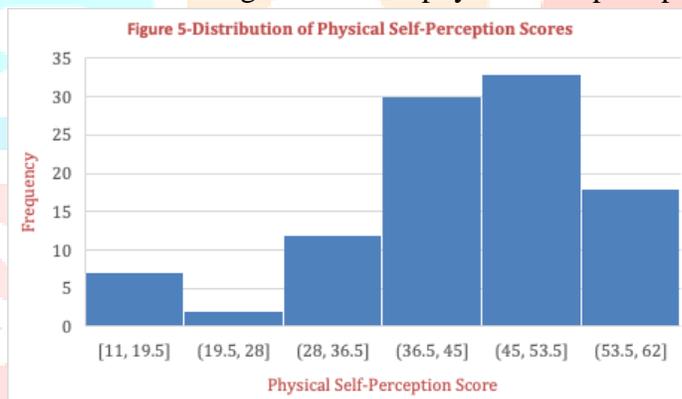
The results indicate moderate levels of social media engagement among participants. Physical self-perception scores suggest generally positive body appreciation, while self-esteem scores fall within the moderate range.

Table 2. Descriptive Statistics for Study Variables

Variable	N	Mean	SD	Minimum	Maximum
Social Media Usage	102	20.65	6.82	10	37
Physical Self-Perception	102	43.23	11.32	11	55
Self-Esteem	102	16.25	4.55	9	30

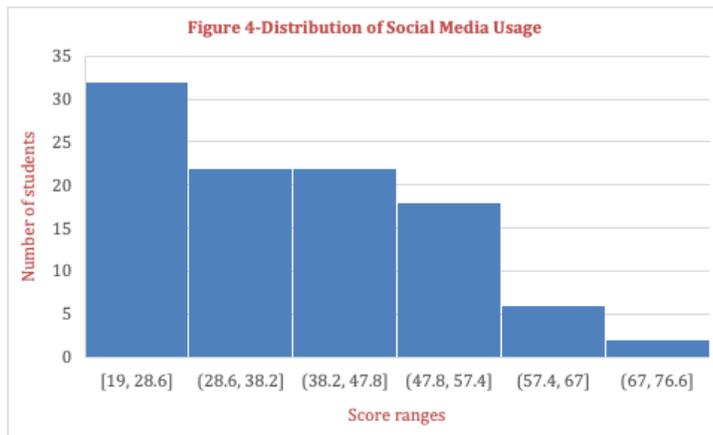
Relationship Between Social Media Usage and Physical Self-Perception

Pearson correlation analysis was conducted to examine the relationship between social media usage and physical self-perception. The findings indicated a significant positive correlation between these variables ($r = .354$, $p < .001$), as shown in Table 3. This finding indicates that higher levels of social media engagement are associated with higher levels of physical self-perception among adolescents.



Relationship Between Social Media Usage and Self-Esteem

The analysis also examined whether social media usage was related to adolescents' self-esteem. The correlation between social media usage and self-esteem was not statistically significant ($r = .08$, $p = .416$), as presented in Table 3. This suggests that social media engagement did not have a direct association with global self-esteem levels in the present sample.



Gender Differences in Physical Self-Perception and Self-Esteem

Independent samples t-tests revealed no significant gender differences in physical self-perception ($t = 0.732$, $p = .466$) or self-esteem ($t = 0.832$, $p = .407$), as shown in Table 3.

Table 2 Independent Samples t-Test for Gender Differences

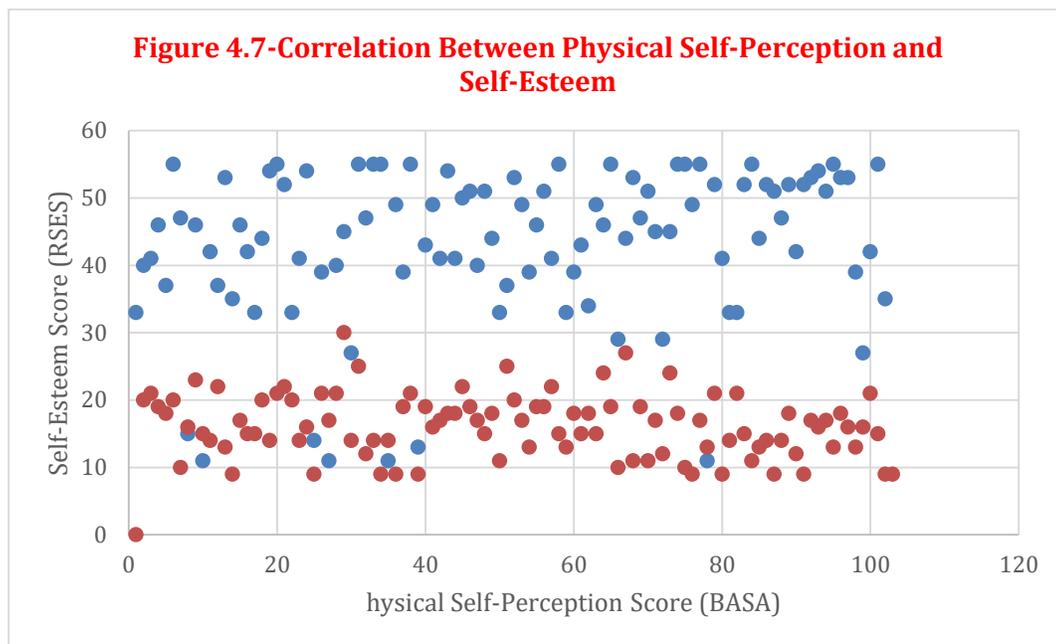
Variable	t	df	p
Physical Self-Perception	0.732	100	.466
Self-Esteem	0.832	100	.407

The results indicated no significant gender differences in either physical self-perception or self-esteem among the participants.

Relationship Between Physical Self-Perception and Self-Esteem

Table 3. Correlation Between Study Variables

Variables	r	P
Social Media Usage ↔ Physical Self-Perception	.354	< .001
Social Media Usage ↔ Self-Esteem	.08	.416
Physical Self-Perception ↔ Self-Esteem	-.397	< .001



Further analysis revealed a significant negative relationship between physical self-perception and self-esteem ($r = -.397$, $p < .001$), as indicated in Table 3. This suggests that adolescents who reported greater focus on their physical appearance tended to report lower overall self-esteem.

Appearance-Based Comparison and Body Dissatisfaction

The relationship between appearance-based comparison and body dissatisfaction was also examined. The results indicated that the correlation between these variables was not statistically significant ($r = -.0988$, $p = .3229$). This suggests that appearance-based comparison alone did not predict body dissatisfaction among the adolescents in the sample.

Overall, the results demonstrate that while social media engagement is associated with adolescents' physical self-perception, it does not appear to have a direct relationship with self-esteem. Additionally, gender differences were not observed in the key psychological variables examined in the study.

6. Discussion

The study explored how social media usage relates to physical self-perception and self-esteem among early adolescents in Dubai. The findings show a significant positive association between social media usage and physical self-perception, indicating that adolescents who use social media more frequently tend to show greater awareness and appreciation of their physical appearance. This may reflect opportunities for self-presentation and peer validation on digital platforms, consistent with earlier research on identity expression and appearance-focused engagement (Chua & Chang, 2016; Barry et al., 2017).

In contrast, social media usage was not significantly related to self-esteem, differing from several Western studies reporting negative associations (Vogel et al., 2014; Twenge & Campbell, 2018). This pattern may reflect cultural or contextual buffers in Dubai, such as strong family structures and supportive school environments.

The study also found no significant gender differences in physical self-perception or self-esteem, suggesting that boys and girls experience similar digital influences in this multicultural setting. Additionally, a significant negative relationship between physical self-perception and self-esteem indicates that heightened appearance awareness may coincide with lower global self-worth, highlighting the complex interplay between body image and self-evaluation.

Finally, appearance-based comparison did not significantly predict body dissatisfaction, suggesting that comparison alone may not drive negative body image outcomes; protective cultural and social factors may moderate these effects.

Overall, the results underscore that social media's psychological impact on adolescents is multidimensional and culturally shaped, reflecting interactions between digital behavior, developmental processes, and the multicultural environment of Dubai.

7. Limitations

Several limitations should be considered when interpreting the findings. The study used a cross-sectional design, which prevents conclusions about causality between social media usage, physical self-perception, and self-esteem. All variables were measured through self-report questionnaires, which may be influenced by social desirability or response bias. The sample consisted of 102 adolescents from private English-medium schools in Dubai, which may limit generalizability to adolescents in government schools, other socioeconomic backgrounds, or different cultural settings. Additionally, the study focused on frequency and intensity of social media use, but did not examine specific online behaviors (e.g., posting, editing photos, receiving feedback) that may have distinct psychological effects. Finally, the study did not account for parental monitoring, peer relationships, or offline appearance pressures, which may moderate the associations observed.

8. Future Research

Future studies could employ longitudinal designs to examine how social media engagement influences self-perception and self-esteem over time. Expanding the sample to include adolescents from diverse school types, socioeconomic backgrounds, and cultural groups in the UAE would enhance generalizability. Research could also explore specific social media behaviors, such as selfie-posting, photo editing, or peer feedback, to better understand mechanisms underlying appearance awareness. Including additional variables—such as parental mediation, peer support, personality traits, or mental health indicators—may clarify protective or risk factors that shape adolescents' digital experiences. Finally, qualitative or mixed-methods approaches could provide deeper insight into how adolescents interpret and negotiate social media influences within multicultural environments like Dubai.

9. Conclusion

The present study examined the psychological correlates of social media usage among early adolescents in Dubai, focusing on physical self-perception and self-esteem. The findings indicate that social media engagement is positively associated with physical self-perception, suggesting that adolescents who engage more frequently with digital platforms may develop increased awareness of their physical appearance.

However, social media usage was not significantly associated with self-esteem, indicating that broader psychosocial influences such as family environment, peer relationships, and cultural values may play a stronger role in shaping adolescents' global self-evaluation.

The absence of significant gender differences suggests that both boys and girls may experience similar digital influences in contemporary social media environments. Additionally, the negative relationship between physical self-perception and self-esteem highlights the complex ways in which appearance awareness may interact with adolescents' overall sense of self-worth.

Taken together, the findings highlight the importance of encouraging balanced digital engagement while also creating supportive social environments that nurture healthy self-development during adolescence.

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