

The Impact of Social Media on Body Language and Fitness Practices among Teenagers

Rahul Dev Choudhury*, Priyanshu Prabal Dutta**, Sukanta Ch Nath***, Nilakhi Saikia****

*Department of Physical Education, Regional College of Physical Education, Panisagar, Tripura, India
Email: devrahul09@gmail.com)

Abstract:

The increasing presence of social media in adolescents' lives has prompted considerable concern regarding its effects on their body image and fitness habits. This research investigates the connection between social media use and changes in body language and fitness behaviors among teenagers aged 15 to 17 in the Duliajan region of Assam. Data was collected through a structured questionnaire based on a 5-point Likert scale, with 40 participants randomly selected for the study. The primary objective is to examine how exposure to idealized representations on social media impacts adolescents' non-verbal communication, self-image, and engagement in fitness activities. Furthermore, the study evaluates the psychological impact of social media on teenagers' body image, self-esteem, and the potential development of unhealthy behaviors. These findings hold value for parents, educators, and policymakers by offering insights into the complex interaction between digital media and adolescent behavior, which can aid in promoting a healthier body image and balanced fitness routines. The research also provides a foundation for addressing increasing concerns related to body image anxiety among teenagers. By educating adolescents about the influence of social media, the study seeks to equip them with the knowledge needed to make informed decisions regarding their body image and fitness, fostering a healthier relationship with both themselves and the digital environment.

Keywords — **Social media, Adolescents, Body image, Body language, Self-esteem.**

I. INTRODUCTION

In recent years, social media has become deeply embedded in adolescents' daily lives, serving as a primary tool for communication, self-expression, and global engagement. Platforms such as Instagram, Facebook, and WhatsApp have evolved into influential spaces where teenagers construct and share their identities. The personalized nature of social media, driven by algorithms that continuously adapt to user preferences, ensures prolonged engagement by catering to individual interests. The widespread availability of smartphones and fast internet access only intensifies this connection, allowing teenagers to remain online almost constantly.

However, this pervasive presence of social media raises significant concerns, particularly about body image and fitness. The relentless exposure to idealized content, both from peers and influencers, can foster feelings of inadequacy, anxiety, and compulsive behavior in adolescents, who may seek validation through likes and comments. Moreover, the norms and trends promoted by social media often set unrealistic standards, especially around body image and fitness, which can lead to harmful practices.

Understanding the intertwined relationship between body language and fitness is essential. Body language, comprising non-verbal cues such as posture and facial expressions, communicates inner psychological states and can significantly influence

social interactions. In parallel, fitness practices, which encompass regular physical activities and healthy habits, enhance physical well-being and emotional and mental health. Engagement in fitness can positively impact body language by improving posture and fostering a sense of confidence and vitality. Thus, body language and fitness collectively shape how individuals present themselves and interact with their environment, reflecting their physical and mental well-being.

II. STATEMENT OF THE PROBLEM

Social media significantly influences adolescents' perceptions of body image and fitness by consistently presenting idealized standards through carefully curated visuals and influential figures. Given that this period is crucial for developing their self-identity, teenagers are particularly susceptible to these messages, often linking their physical appearance with their sense of self-worth. Frequent exposure to images of 'perfect' bodies can contribute to detrimental behaviors, such as extreme dieting or rigorous fitness regimens. Moreover, the desire for validation in the form of likes and comments may encourage teens to modify their body language and self-presentation, emphasizing aesthetics more than their overall well-being. These intricate interactions highlight the need for deeper consideration of social media's effects on adolescent health and self-image.

A. Purpose of the study

1. To explore the relationship between social media usage and changes in body language among teenagers.
2. To explore the relationship between social media usage and changes in fitness practices among teenagers.

B. Research Questions

1. How does exposure to fitness and body image content on social media platforms influence teenagers' perceptions of their own body language and physical appearance?
2. What is the relationship between the frequency of social media use and the adoption of specific fitness practices or routines among teenagers?
3. In what ways does social media impact teenagers' self-esteem and confidence in their

body image, and how does this reflect in their nonverbal communication (body language)?

III. SIGNIFICANCE OF THE STUDY

The "Influence of Social Media on Body Language and Fitness Practices among Teenagers" study holds significant value in understanding the dynamic relationship between digital media and adolescent behavior. Teenagers are particularly vulnerable to its influence in an era where social media permeates every aspect of daily life.

1. Understanding Behavioral Shifts: The study illustrates how social media platforms shape teenagers' perceptions of body image, self-esteem, and physical appearance.
2. Guiding Parents and Educators: The findings are crucial for parents, educators, and policymakers. Understanding social media's effects can help them encourage teens to develop good body image and balanced fitness routines, reducing the harmful effects of constant internet exposure.
3. Addressing Mental Health Concerns: With adolescent mental health concerns rising, this study provides a framework for understanding how social media may affect body image-related anxiety.
4. Empowering Teenagers: The research empowers teens by raising awareness of social media's effects. With more knowledge, they can make better body image and fitness decisions, improving their relationship with themselves and the digital world.

IV. OBJECTIVES OF THE STUDY

1. To analyze the impact of social media on adolescents' body language and self-presentation, focusing on how exposure to idealized content influences their non-verbal communication and self-perception.
2. To investigate the relationship between social media consumption and the adoption of fitness practices among teenagers, examining how online trends and peer influence shape their physical activity and health routines.

3. To assess the psychological effects of social media on teenagers' body image, exploring the connections between online engagement, self-esteem, and the potential development of harmful behaviors related to body image and fitness.

V. LITERATURE REVIEW

The impact of social media on teenagers' body language and fitness behaviors has garnered significant attention in recent research. Studies suggest that the pervasive presence of social media platforms fosters the normalization of idealized body standards, leading to a heightened focus on physical appearance among adolescents [1]. As teens increasingly consume curated images of influencers and celebrities, they are more likely to develop body dissatisfaction, influencing their posture, mannerisms, and self-presentation [2]. Social media often encourages teens to conform to certain physical ideals, resulting in altered body language that seeks validation through social approval, such as pursuing "likes" or positive comments [3]. In addition, social media-driven fitness trends promote extreme workout regimens and dieting behaviors, with adolescents feeling pressured to engage in these practices to achieve the "ideal" body type [4]. This increased focus on appearance and fitness, driven by social media, raises concerns regarding the potential long-term effects on adolescent health, particularly in relation to body image and self-esteem [5]. As a result, researchers underscore the need for further exploration into the psychological and physical consequences of social media on teen behavior, calling for interventions that foster healthier self-perception and body image.

VI. METHODOLOGY

• RESEARCH DESIGN

To collect data for the research titled "The Impact of Social Media on Body Language and Fitness Practices among Teenagers," a structured questionnaire was administered to adolescents aged 15 to 17 in the Duliajan area of Assam. The survey utilized a 5-point Likert scale to gauge participants' responses. A total of 40 teenagers were selected for this study through a random sampling method. Throughout the data collection process, measures were taken to ensure the confidentiality and anonymity of all participants

• STATISTICAL ANALYSIS

The statistical analysis examined the relationship between social media usage and its effects on body language and fitness practices among adolescents in the Duliajan area. The 5-point Likert scale questionnaire data was systematically analyzed to draw meaningful insights.

• DESCRIPTIVE STATISTICS

The descriptive statistics for 25 questions (Q1-Q25) with a sample size of 40 respondents for each. All questions use a 5-point scale, with minimum scores ranging from 1 to 4 and maximum scores consistently at 5. Mean scores vary from 2.70 (Q9) to 4.60 (Q13), suggesting generally positive responses across most questions. Standard errors are relatively low, ranging from 0.078 to 0.205, indicating good precision in the mean estimates. Standard deviations span from 0.496 to 1.299, with most falling between 0.7 and 1.1, suggesting moderate variability in responses. Questions with higher means tend to have lower standard deviations, implying more consensus on positively rated items. Overall, the data indicates a generally positive sentiment across the questions, with some variation in agreement levels among respondents.

Descriptive Statistics						
	N	Minimum	Maximum	Mean		Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic
Q1	40	2	5	3.78	.162	1.025
Q2	40	3	5	4.27	.124	.784
Q3	40	2	5	3.40	.151	.955
Q4	40	3	5	4.20	.120	.758
Q5	40	3	5	4.27	.124	.784
Q6	40	4	5	4.53	.080	.506
Q7	40	3	5	4.27	.124	.784
Q8	40	2	5	3.40	.151	.955
Q9	40	1	4	2.70	.176	1.114
Q10	40	2	5	3.70	.176	1.114
Q11	40	2	5	3.70	.176	1.114
Q12	40	3	5	4.27	.124	.784
Q13	40	4	5	4.60	.078	.496
Q14	40	3	5	4.32	.126	.797
Q15	40	2	5	3.58	.179	1.130
Q16	40	2	5	3.40	.151	.955
Q17	40	2	5	3.75	.155	.981
Q18	40	1	5	2.83	.205	1.299
Q19	40	3	5	4.32	.126	.797
Q20	40	2	5	3.62	.178	1.125
Q21	40	3	5	4.27	.124	.784
Q22	40	3	5	4.32	.126	.797
Q23	40	2	5	3.40	.151	.955
Q24	40	2	5	3.62	.178	1.125
Q25	40	2	5	3.70	.176	1.114
Valid N (listwise)	40					

Fig 1: Descriptive statistics of the responses

Fig 2: Reliability Analysis of the questionnaire

• **RELIABILITY ANALYSIS**

Reliability Statistics

Cronbach's Alpha	N of Items
.992	25

Cronbach's alpha was calculated to ensure the reliability of the Likert scale items. The value of Cronbach's alpha was .992, indicating an excellent internal consistency among the items.

• **CORRELATION**

A correlation matrix for 25 variables (Q1-Q25) was created by thresholding coefficients to identify high-potential features and study their relationships. With coefficients between 0.3 and 0.9, most relationships are positive and mild to strong. Many pairs of variables exhibit >0.8 correlations, including

Q9-Q10, Q9-Q11, and Q10-Q11. These questions may assess related concepts. The lower correlations of Q6 and Q13 suggest they measure separate ideas. As expected for a variable connected with itself, the diagonal of the matrix has 1.000 perfect correlations.

VII. KEY FINDINGS

The statistical analysis examined social media usage effects on body language and fitness practices among adolescents in Duliajan. The 25-question survey with 40 respondents used a 5-point Likert scale. Mean scores ranged from 2.70 to 4.60, indicating generally positive responses. Standard deviations suggested moderate variability in responses. Cronbach's alpha of .992 demonstrated excellent internal consistency. Correlation analysis revealed mostly positive relationships between variables, with coefficients ranging from 0.3 to 0.9. Some question pairs (e.g., Q9-Q10, Q9-Q11) showed strong correlations (>0.8), suggesting they measure similar constructs. Overall, the data

indicated a positive sentiment across questions with varying levels of agreement among respondents.

These findings suggest that social media may influence adolescents' engagement in physical activities, particularly those widely promoted online. All statistical analyses were performed using SPSS version 26, ensuring accuracy and consistency in the interpretation of the data.

VIII. DISCUSSION

The analysis highlights the considerable impact of social media on adolescents' body language and self-presentation. Adolescents frequently exposed to idealized content on platforms like Instagram and Facebook often mirror postures, gestures, and expressions that align with popular beauty and fitness ideals [5], [6]. This exposure fosters heightened self-consciousness, prompting them to imitate behaviors perceived as desirable. These online behaviors also extend to face-to-face interactions, where non-verbal communication becomes more controlled, reflecting the personas they see online [7]–[9]. Engaging with positive, empowering content led to improved confidence and authenticity in how they presented themselves [8]. Social media also influences teenagers' fitness habits, as those interacting with fitness-related content adopt healthier routines, supported by peer-driven fitness challenges [1], [9]. Despite potential negative psychological effects, such as low self-esteem or harmful body image behaviors, exposure to body-positive movements fosters self-acceptance and higher self-esteem [1], [8], [9]. Therefore, social media can serve as a tool for encouraging healthy behavior and improved psychological well-being when used mindfully [6].

IX. LIMITATIONS AND RECOMMENDATIONS

This research has a few constraints. The limited sample of 40 teenagers from one specific region may restrict how broadly the results can be applied to other groups, particularly those from varying cultural or socio-economic backgrounds. Furthermore, the use of self-reported data from questionnaires can

lead to response bias, where participants might give answers, they think are more acceptable. To gain a clearer picture of these relationships, future studies should use longitudinal methods and include larger, more varied populations.

X. CONCLUSION

This study highlights the significant impact of social media on adolescents' body language and fitness practices. Social media exposure influences teenagers' non-verbal communication, self-presentation, and engagement in physical activities, often driven by idealized beauty and fitness standards. While positive online content can promote healthy habits and self-confidence, the constant pressure to conform to unrealistic standards may lead to negative psychological effects. The findings underscore the need for mindful social media use and support from parents and educators. Future research with larger and more diverse samples is essential to better understand the long-term effects of social media on adolescent behavior.

DECLARATION BY AUTHORS

ETHICAL APPROVAL: Approved

ACKNOWLEDGMENT: None

SOURCE OF FUNDING: None

CONFLICT OF INTEREST: The authors declare no conflict of interest.

REFERENCES

- [1] R. M. Perloff, "Social Media Effects on Young Women's Body Image Concerns: Theoretical Perspectives and an Agenda for Research," *Sex Roles*, vol. 71, no. 11–12, pp. 363–377, 2014.
- [2] M. Tiggemann and A. Slater, "NetGirls: The internet, facebook, and body image concern in adolescent girls," *Int. J. Eat. Disord.*, vol. 46, no. 6, pp. 630–633, 2013.
- [3] Z. Brown and M. Tiggemann, "Attractive celebrity and peer images on Instagram: Effect on women's mood and body image," *Body Image*, vol. 19, pp. 37–43, 2016.
- [4] G. Holland and M. Tiggemann, "A systematic review of the impact of the use of social networking sites on body image and disordered eating outcomes," *Body Image*, vol. 17, pp. 100–110, 2016.
- [5] J. Fardouly, P. C. Diedrichs, L. R. Vartanian, and E. Halliwell, "Social comparisons on social media: THE impact of Facebook on young women's body image concerns and mood," *Body Image*, vol. 13, pp. 38–45, 2015.
- [6] C. Mahon and D. Hevey, "Processing Body Image on Social Media: Gender Differences in Adolescent Boys' and Girls' Agency and Active Coping," *Front. Psychol.*, vol. 12, no. May, 2021.
- [7] V. A. Goodyear, K. M. Armour, and H. Wood, "Young people and their engagement with health-related social media: new

- [8] perspectives,” *Sport. Educ. Soc.*, vol. 24, no. 7, pp. 673–688, 2019.
S. A. McLean, H. K. Jarman, and R. F. Rodgers, “How do ‘selfies’ impact adolescents’ well-being and body confidence? A narrative review,” *Psychol. Res. Behav. Manag.*, vol. 12, pp. 513–521, 2019.
- [9] A. Chung *et al.*, “Adolescent peer influence on eating behaviors via social media: Scoping review,” *J. Med. Internet Res.*, vol. 23, no. 6, pp. 1–12, 2021.
- [1] .