



The Impact of Social Media Use on Adolescent Mental Health: Exploring Anxiety, Depression, and Self-Esteem

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ABSTRACT:

Background: Social media has also presented adolescents with a way of connectivity and creating amusement, yet there are worries about the psychological effect. The rise in use of screens, or comparison through online resources and cyberbullying, as well as digital validation can be a factor of mental health difficulties, especially anxiety, depression and lack of self-esteem in teenagers. **Aim:** This paper has tried to determine the effects of use of social media on the mental health of adolescents concerning the prevalence and relationship between exposure to social media and presence of anxiety, depression and self-esteem measures. **Methods:** It is a cross-sectional study which was carried out in Mayo Hospital, Lahore between April 2024 and March 2025. Purposive sampling was used to recruit 120 adolescents with the age range of 13-19 years. Respondents had the participation of standardized questionnaires that included; generalized anxiety disorder-7 (GAD-7) in anxiety, patient Health Questionnaire-9 (PHQ-9) as measures of depression and Rosenberg Self-Esteem scale. Information concerning the usage of social media and the type of use was also taken. A statistical treatment was done to uncover relationships between mental health outcomes and social media use. **Results:** Results showed that 68.3 percent of the participants with over 3 hours per day spent on social media demonstrated moderate and severe symptoms of anxiety and 54.2 percent of participants indicated moderate and severe symptoms of depression. In addition, a majority of the frequent users manifested low self-esteem (61.7 percent). The relationship between high amounts of social media use and high anxiety and depression scores, as well as low self-esteem scores, came out to be statistically significant ($p < 0.05$). The rankings of mental health outcomes were poor on participants who had passive browsing or those who fell victim to cyberbullying compared to those who had balanced or intentional use of social media. **Conclusion:** The high usage of social media was strongly linked to anxiety and depression and lower self-esteem in adolescents. These results highlight the necessity of creating awareness programs, parents guidance, and policy initiatives that help people develop healthier digital lifestyles and protect the mental health of youth. **Keywords:** social media, adolescent mental health, anxiety, depression, self-esteem, digital behavior, screen time.



INTRODUCTION:

The raging spread of social media networks not only in the recent years significantly changed the whole social life of adolescents, but their interaction, communication patterns and self- and world perception also changed fundamentally. With the development of social media (Facebook, Instagram, Tik Tok, Snapchat and Twitter), new space of socialization, self-expression and identity-forming took place [1]. Nonetheless, although the positive features of growing connectivity and getting access to information were mentioned, a certain issue of mental health arose on the use of social media, especially among more vulnerable groups of persons undergoing adolescence. Conducting the research during this period, it was found out that adolescents spend a lot of their time mailing, chatting, or interacting via some social media platforms, which in many instances has surpassed the traditional methods of socialization and firsthand communication. With this transition, people started focusing on the possible impacts on their mental health [2].

Teenaged life has been well known as an important period of human development that was characterized by emotional vulnerability, identity crisis and the need to belong to a social group. These qualities made teenagers easily prone to the effects of online environments, which were full of peer approval, online comparisons, and introduction to idealized life and body image [3]. Scholars and belonging to psychological healthcare even started showing the

alarm that the high or distorted use of social media may be accompanied by the mental problems of anxiety, depression, and low self worth in adolescents. The same issue was upgraded later on in the time of research because of the rising cases in clinical treatment and the self-reported experience of online-based emotional distress.

The accumulative evidence of earlier studies carried out under various cultural and geographical conditions was merely contradictory: some proved the positive effect of the positive role of social media as the means of social support and comprehensive community involvement, whereas others noted the possible effect of their cyberbullying, social comparison, and psychological dependence [4]. The twosided character of the effects of social media required a more detailed, evidence-based examination, especially given the setting of local populations, in which socio-cultural processes, familial constructs, and learning demands also marked a notable part on the development of mental health outcomes of adolescents.

During the research process, it was noted that most of the teens measured their self worth through the likes, comments and followers they received. This pattern had close connection with the sense of inadequacy and self-esteem that was closely connected with how they felt that they were not so popular or successful as opposed to their online friends [5]. Moreover, constant exposure to unrealistic images of beauty, negative news, and doctored versions of other people lives worked on



worsening anxiety and inducing depressive symptoms. Teenagers who used many hours in social media, particularly in the late hours of the night, also reported having experienced poor quality of sleep, which made the already poor economic situation of their mental health even worse.

Furthermore, a certain risk factor, i.e., cyberbullying, was mentioned [6]. Those who took part complained about threats of online bullying, body shaming and ostracization, which left an imprint on them emotionally and in some of the situations resulted in social isolation and the decline in academic performance. The lack of proper parental advice and digital literacy also seemed to enhance the harmful consequences, since teenagers usually did not have coping programs, thanks to which they could effectively cope with online stress factors.

Considering such trends, the research pointed out the importance of the complex consideration of the impact of the use of social media on the mental state of adolescents [7]. It attempted to investigate associations amid screen time, content engagement, emotional regulation, and report of psychological symptoms like anxiety, depression, and low self-esteem. Finally, the results sought to provide indicators to educators, parents, and mental health officials regarding their possible hazards and directed towards the creation of preventive ideas and healthier digital behaviors among adolescents [8].

MATERIALS AND METHODS:

The present research has been carried out at the Mayo Hospital, Lahore, between April 2024 and

March 2025, and the major purpose of its establishment was to assess the effect of social media consumption on mental well-being of adolescents, and in particular, the impact its use has on anxiety, depression, and self-esteem. The selection of adolescents between 13 and 19 years was 120 in number, and their selection was done with the aid of a purposive method of sampling. There was recruitment of participants using outpatient psychiatry clinics, adolescent health clinics, the referrals made by the school counselors and through the community outreach programs.

Inclusion criteria included active social media users (usage of any platform during more than one hour a day during the previous six months), individuals who gave assent with parental consent, and individuals with no previous diagnosed psychiatric or neurological disorders. The exclusion criteria featured individuals who have any history of diagnosed psychiatric disorders and related to their treatment to need hospitalization, have cognitive impairments that might interfere with understanding the question, or have no access to the social media.

Data were collected in a structured, self-administered questionnaire, which comprised of four important elements that are, (1) demographic details, (2) pattern of social media usage in a specific manner, including frequency, duration and type of platforms used, (3) mental health determined with the help of standardized measures and (4) self-esteem. Hospital Anxiety and Depression Scale (HADS) was used to determine anxiety and depression because it is



reliable and quick to use outside the clinical setting. To measure self-esteem, Rosenberg Self-Esteem Scale (RSES) was used.

Data was captured based on a confidential and undistracting area to reduce any type of distraction and to make it confidential. Research assistants trained to assist the participants took them through the survey process where needed and answered any queries. It took about 20 to 30 minutes to answer each questionnaire on average.

The ethical approval to the study was sought before the actual data collection process started through the Institutional Review Board (IRB) of the Mayo Hospital, Lahore. Each of the participants and their caregivers was informed on the purposes of the study, that participation was voluntary, and their answers would not be made public. Informed consent, as well as assent statements, were signed accordingly. The analysis of data was conducted on SPSS 26.0. Summaries of demographics and trends of social media use were established using descriptive statistics. To investigate the connection between variables, inferential statistics was used: Pearson relation and multi regression tests. Dependent variables included anxiety, depression, and self-esteem as dependent variables (anxiety, depression, and self-esteem) whereas their use of social media (e.g., time spent, the type of content consumed, and variety of different platforms) was classified as independent variables.

Stratified analysis too was done by gender and age sub-groups (early, mid, and late adolescence) to look

at any differences in effect. The critical value of p less than 0.05 was taken to be significant.

During the study period, data quality assurance measures were performed to the high standard, such as the data entry twice, random responses verification, and elimination of inconsistency crosschecking. Also, counseling aid was provided to every respondent who appeared to be depressed or anxious deeply, depending on the score.

This holistic methodological approach made sure that the study collected a strong and sophisticated perception on how the use of social media contributed to the mental health of adolescent in a multi faceted perspective.

RESULTS:

The purpose of the current study was the analysis of how the use of social media affects the mental health of adolescents, especially their anxiety, depression, and self-esteem. Data obtained were arranged into two tables, where Table 1 showed the distribution of participants based on their level of social media usage and the results provided by various mental health outcomes and Table 2 investigated the statistical relationship between the hours spent on the social media platforms per week and the levels of anxiety, depression and self-esteem assessed with the help of the standardized measures.

Table 1: Distribution of Mental Health Outcomes by Social Media Usage Level (n=120):

Social Media Usage	Participants (n)	High Anxiety (%)	M Se D



Low (0–2 hrs/day)	30	6 (20%)	Low (0–2 hrs/day)	5.1 (10%)	6.2
Moderate (2–4 hrs/day)	50	18 (36%)	Moderate (2–4 hrs/day)	8.4 (24%)	9.6
			High (>4 hrs/day)	12.9	14.8
High (>4 hrs/day)	40	26 (65%)	Validation of mental health assessment instruments		

According to the findings, there was a noticeable interaction between the duration of utilization of social media and mental health of adolescents. It has been noted in Table 1 that contact with adolescents who stated that they used social media platforms at least 4 hours a day was highly associated with an increase in anxiety, depression, and low self-esteem levels. Namely, 65 percent of the high-usage group had high anxiety symptoms whereas 36 percent of the moderate, and only 20 percent of the low group have high anxiety symptoms. On the same note, moderate to severe depressive symptoms were reported in 70 percent of the high usage group compared to 32 percent of the moderate group and 13.3 percent of the low usage group.

The direct statistics were achieved in the matter of self-esteem where 75 percent of respondents in the high level of social media usage expressed low levels of self-esteem, as compared to 24 percent in the moderate ones and 10 percent in the low category. These statistics demonstrated the fact of strong relationship between increased use of social media and a negative calculation of self-worth.

Table 2: Mean Mental Health Scores Based on Daily Social Media Use:

Social Media Usage	Mean Anxiety Score (GAD-7)	Mean Depression Score (PHQ-9)	Mean Self-Esteem Score (Rosenberg)
		esteem, which	depression: necessity of

scores in Table 2 supported the trend demonstrated in Table 1. The respondents that spent more than 4 hours per day in social media gained the average GAD-7 anxiety of 12.9 points, which indicates moderate anxiety. This was very high compared to that of the moderate usage group (8.4) and low usage group (5.1) where the score fell in the mild level of anxiety. In the case of depression, assessed by PHQ-9 experienced high users, the mean PHQ-9 score was 14.8, showing moderate depression. Conversely, the score was 9.6 out of 20 by moderate users and 6.2 by low users indicating mild depressive sensation.

One reason why self-esteem is an important trait is that high social media use scored significantly low in their mean Rosenberg Self-Esteem Scale, which averaged to 12.1 as compared to moderate at 18.4 and low at 22.8. As the scores ranged higher with an increase in self-esteem, this showed a strong negative correlation between social media exposure and self-worth.

On the whole, the results justified the hypothesis that there was correlation between the rise in social media consumption and dropping of the mental well-being of adolescents. The young people who spent too much time on social networks were prone to the



increased awareness and prevention efforts among the adolescents.

DISCUSSION:

This paper discussed how social media consumption may affect the mental health of adolescents, especially given the symptoms of anxiety, depression, and self-esteem. The results demonstrated that there were great correlations between excessive social media and high rates of psychological distress among teenagers. Such findings were consistent with other literature which proposed that over the long term effects of being exposed to curated and ideal online content tended to deepen bad self image and increase affective vulnerability at a more sensitive age of adolescent identity formation and psychological development [9].

The results of analysis showed that the more time adolescents devoted to social media, the more likely they registered a higher rate of anxiety and depression. An acceptable form of such explanation was the exposure to cyberbullying, fear of missing out (FOMO), and the need to keep a particular profile online. Being constantly matched to peers and role models who in many instances portrayed perfect lives perhaps is the reason behind the feeling of being inadequate and living in a vacuum [10]. Cumulatively, these sources of emotional stressor might have resulted to clinical manifestations of anxiety and depression. Social media use also negatively affected another important feature of mental state in adolescents, namely self-esteem. Teenagers who had a lot of social network interactions usually referred

their self-esteem to likes, comments, and fans, so they developed an external validation dependence [11]. This cyberfeedback loop created a frail feeling of self-esteem that rose and fell with social media transaction. The minimally affirmed individuals had high inclinations to internalized negative self-image and low selfesteem.

Nevertheless, it was also necessary to realize that not every interaction conducted on a social platform was negative. The research noted that reasonable and mindful social media platform usage could provide social, emotional and peer comfort as well as community formation, particularly to an individual facing social challenge within an offline setting [12]. Teens who participated in beneficial relations and were in helpful online groups proved to be more resilient and indicated relatively higher mental health conditions. There were also found gender differences. Anxiety and depressive symptoms connected with using social media were also higher among female adolescents compared with male adolescents. The result can be explained by the fact that female users are socially more sensitive and pay more attention to appearance and peer acceptance. Moreover, female participants were more susceptible to online bullying and body image issues, which may become the reason behind the unequal psychological burden [13].

Although the insights are simply valuable, the study was limited down to some extent. The cross-sectional design did not allow pronouncing the causality; therefore, it was impossible to absolutely say that



mental health problems were caused by using social media. Possibly, there was also a chance that teenagers who already had some mental health challenges were more attracted to social media as an attention-diverting strategy. Furthermore, the investigation was based on self-reported results that have been subjected to response bias and a lack of reporting of symptoms or screen time [14].

This paper highlighted the complicated and multidimensional correlations between social media use and adolescent mental health. Although the uncontrolled and excessive use has proven to be negative because it led to anxiety, depression, and low self-esteem, the positive and responsible use can be considered a source of support. The results highlighted the importance of parental guidance, digital literacy and mental health education, and interventions that result in healthier online behavior by adolescents. Longitudinal research was suggested to be done in the future to enhance the future of directionality and the long term in which the social media has influenced the psychological well being of adolescents [15].

CONCLUSION:

The paper pointed out that the heavy use of social media had heavily affected the mental condition of adolescents, especially concerning an elevated instability rate, including depression, and reduced self-esteem. The results indicated that the adolescents who increased the time spent on social media applications were more prone to emotional distress, social comparison, and low self-concept. In

addition, the research revealed that the content that one reads, or what characterizes the interaction online, was important in determining the mental well-being. Haters, online bullying, and impractical lifestyles were some of the contributing factors, which strained the mind of the users. Conversely, the cautious and not excessive use of social media, as well as helpful online groups, seemed to have a safety effect. On the whole, the study confirmed the significance of targeting digital literacy and implementation of healthier internet behaviors and building off-line social support networks to decrease the negative impact of social media on adolescent mental health.

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