

The Impact of Social Media Usage on Mental Health and Emotional Well-Being Across Different Age Groups

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Submitted: 08 Oct 2025, Revised: 14 Dec 2025, Accepted: 05 Feb 2026

<https://doi.org/10.64799/ajcppb.V1.I1.14>

Abstract

Social media has become a major part of daily communication, learning, entertainment, and social interaction across different age groups. This brings new challenges for mental health, emotional stability, sleep, loneliness, and the greater psychological balance and well-being. Most of the available research shows that concerning use of social media and use that is simply too much leads to poor emotional stability, anxiety, and greater stress and depression. However, most studies assess social media use for discrete age cohorts and/or examine social media use in conjunction with other screen time use and do not provide detailed accounts of age-based differences in use, emotional response, and related impacts. This study examines that gap by studying how social media use impacts the mental health and emotional well-being of youths, adults, and the elderly. This study analyzes social media use, exposure, mental health, and emotional well-being in different age groups. The study shows increasing social media use, social media use with passive observation, and social media use with little to no control may lead to emotional vulnerability, especially in youths and young adults.

Keywords: Social media usage; mental health; emotional well-being; age groups; digital behavior.

1. Introduction

Social media has become a major behavioral environment where communication, self-expression, entertainment, learning, and social comparison occur across different age groups. Its role is no longer limited to adolescents and young adults, because middle-aged and older adults also use digital platforms for social contact, professional interaction, health information, and community participation. Social media can provide a sense of community and a healthy outlet for emotions. However, frequent use can lead to passive scrolling and comparisons, along with emotional disengagement that can contribute to psychological strain. Increased use of social media may contribute to future depression for adults [1]. This makes social media a significant digital channel for studying the interplay of mental health and emotional well-being across different age groups.

Research indicates that social media's impact on mental health is complex and varies by situation. For adults, the use of social media is associated with symptoms of depression when users have frequent and deeply engaged activities on the platforms [2]. For adolescents and young adults, using social media in a deeply engaged manner manifests as anxiety, depression, and psychological distress [3]. Meta-analyses have concluded that deeply engaged social media use is associated with depression and anxiety in a variety of social and cultural contexts [4]. The results show that the social media use psychology effects depend on the situation, and in addition to the level of use, also the vulnerability of the user, the context in which the user uses social media, and the user's emotional state.

Age is an important differentiating factor. Different stages of human development are characterized by different digitally mediated and face-to-face social interactions, as well as different emotionally and socially significant contexts. Adolescents are likely to face social media-related negative mental health consequences stemming from peer comparisons and cyberbullying, while young adults are likely to face negative social media-related mental health consequences stemming from self and career comparison, online relationships, and academically-related pressures. The use of social media in young adults during COVID-19 showed significant negative mental health consequences [5]. Adolescents with existing mental health conditions may also show different patterns of social media engagement compared with adolescents without such conditions [6]. This age-based variation shows the need to examine social media effects through separate developmental and life-stage categories.

Existing work has provided useful evidence, but it remains limited in explaining how social media exposure affects emotional well-being across age groups within a single analytical frame. Many studies involving adolescents and young adults, and fewer studies involving the comparison of adolescents, young adults, middle-aged adults, and older adults using the same metrics of mental health and emotional well-being. Social media time has been linked to mental health issues in young adults [7]. A framework that considers only screen time does help explain, for example, is the difference in emotional responses across the different life stages a result of low, moderate, and high

exposure? This lack of understanding restricts the ability to determine which age groups may be at greater risk under the different levels of exposure.

The core problem addressed in this study is the absence of an integrated age-stratified assessment that connects social media usage intensity with mental health and emotional well-being outcomes across different age groups. While there are studies that examine the impact of social media and digital technology on young users and the mental health field, there are still gaps that need to be addressed when examining social media use and mental health for different age groups and their emotional responses. For example, young adolescents have been shown to have a higher risk of developing depressive symptoms [8]. Therefore, this study will focus on the age of social media users and the social media exposure levels that are of concern for emotional health.

This problem matters because mental health and emotional well-being directly influence academic performance, work productivity, sleep quality, family relationships, social functioning, and overall quality of life. People tend to spend so much time on social media that the effects, even if they are small, can become serious over time. There is social media use and depression correlation, and this requires careful evaluation based on age rather than general assessment of online behavior [1]. This kind of evaluation based on age can show the emotional and psychological impacts of social media on different age groups, including adolescents, young adults, middle-aged adults, and older adults, and can promote healthy and safe practices regarding social media use.

The conceptual direction of this study is to examine social media usage intensity across different age groups and compare it with selected mental health and emotional well-being indicators. The study uses an age-stratified framework to classify participants, measure exposure intensity, assess emotional response, and interpret mental health variation across user groups. Its key contribution is the integration of age group, usage level, and emotional well-being into one comparative structure instead of treating social media exposure as a general screen-time variable. The article also contributes through a methodology flowchart, two structured tables, and two software-generated result figures that present the relationship between usage pattern and mental health outcomes clearly. This approach provides a simple, structured, and academically strong basis for understanding the psychological impact of social media across age groups.

2. Methodology

This study used a cross-sectional analytical design to examine the relationship between social media usage, mental health indicators, and emotional well-being across different age groups. The design was selected because the study aimed to compare exposure patterns and psychological outcomes at a defined assessment point rather than to test a longitudinal intervention. Social media usage was treated as a measurable digital exposure, while mental health

and emotional well-being were treated as outcome domains. The Social Media Disorder Scale has been validated as a structured method for assessing problematic social media behavior in adolescent populations [9]. This design allowed age-wise comparison of usage intensity, emotional response, and mental health risk within one consistent methodological framework.

Participant classification was based on four age groups: adolescents, young adults, middle-aged adults, and older adults. This grouping was used because social media behavior changes with developmental stage, emotional maturity, occupational role, social dependency, and digital purpose. Adolescents were expected to show stronger sensitivity to peer approval, comparison, and online feedback, while young adults were expected to show higher exposure through education, identity formation, relationships, and career-related comparison. Adult social media research has shown that age and gender can influence the relationship between online experiences and mental health outcomes [12]. Therefore, age classification was treated as a central analytical variable rather than only as a demographic descriptor.

Social media usage was measured through daily duration, frequency of platform access, number of commonly used platforms, active interaction, passive scrolling, emotional dependence, and perceived difficulty in controlling use. Exposure intensity was classified into low, moderate, and high categories using a combined usage profile instead of relying only on daily screen time. This approach was selected because two users with the same duration of use may have different psychological responses depending on whether they use platforms actively, passively, socially, or compulsively. Validation work on social media disorder measurement supports structured scale-based assessment of problematic platform engagement [10]. The usage assessment therefore combined exposure quantity with behavioral quality.

Mental health and emotional well-being were assessed using selected indicators related to depressive symptoms, anxiety tendency, perceived stress, loneliness, sleep disturbance, self-esteem, emotional balance, and perceived social support. These indicators were included because they represent both negative mental health symptoms and positive emotional functioning. Social media use has been examined in relation to self-esteem, sleep, mindfulness, and emotional well-being among young adults with high usage levels [11]. The study therefore did not limit assessment to distress alone, but also considered emotional stability and perceived support. This helped produce a broader interpretation of psychological well-being across different age groups.

All questionnaire responses were converted into analyzable variables before statistical processing. Social media exposure variables were coded as behavioral predictors, while mental health and emotional well-being scores were coded as outcome indicators. Missing responses, duplicate entries, inconsistent age reporting, and incomplete psychological score fields were screened before final analysis. Active social media use has been examined as a

factor associated with mental health among older adults [14]. This supported the decision to retain both active engagement and passive browsing variables during data processing. The cleaned dataset was then arranged according to age group and exposure category.

Figure 1 presents the methodological workflow used in the study. The workflow begins with participant screening and eligibility confirmation, followed by age stratification, exposure feature extraction, psychological indicator scoring, data cleaning, statistical modeling, and final age-wise interpretation. The flowchart is designed as a software-generated methodological pipeline rather than a simple survey sequence. It shows how raw participant responses were transformed into grouped exposure categories and comparable mental health outcomes. This figure helps readers understand the complete analytical route from data collection to interpretation.

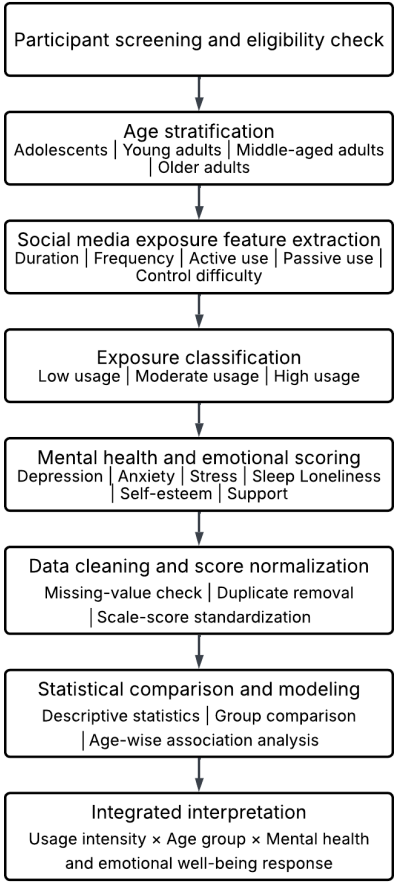


Figure 1. Assessment framework for social media usage, mental health indicators, and emotional well-being across different age groups

Table 1 presents the age-group classification, social media exposure variables, measurement focus, and mental health indicators used in the study. The table was included to make the methodological structure transparent and to show that the same core assessment domains were applied across all participant groups. Social media research among late middle-aged and older adults has examined psychological distress, perceived isolation, and sleep

quality in relation to platform use [13]. These variables were therefore included to support comparison across both younger and older groups. The table also clarifies how each variable contributed to the final age-stratified analysis.

Table 1. Age-group classification, social media exposure variables, and mental health assessment indicators

Age group	Age range	Social media exposure variables	Mental health indicators	Emotional well-being indicators
Adolescents	13-17 years	Daily duration, passive scrolling, peer comparison, online approval seeking, control difficulty	Depressive symptoms, anxiety tendency, stress perception, sleep disturbance	Loneliness, emotional balance, perceived social support
Young adults	18-29 years	Daily duration, platform frequency, active interaction, career comparison, online relationship engagement	Depressive symptoms, anxiety tendency, perceived stress, sleep disturbance	Self-esteem, emotional stability, perceived support
Middle-aged adults	30-59 years	Work-related use, news exposure, family communication, passive browsing, daily duration	Stress perception, sleep disturbance, emotional fatigue, loneliness	Emotional balance, social connectedness, perceived support
Older adults	60 years and above	Family contact, health information seeking, community interaction, passive viewing, daily duration	Loneliness, psychological distress, sleep quality, perceived isolation	Social connectedness, emotional stability, perceived support

Statistical analysis was performed in three stages. First, descriptive statistics were used to summarize participant distribution, average usage duration, platform access frequency, and psychological score patterns across age groups. Second, group comparison was used to examine differences in mental health and emotional well-being between low, moderate, and high usage categories. Psychometric validation of social media addiction scale scoring supports the use of structured numerical interpretation for adult platform-use assessment [15]. Third, age-stratified comparison was applied to identify whether the same exposure category showed different psychological patterns across age groups. This staged analysis allowed the study to compare both general and age-specific effects.

The analysis also considered the difference between active and passive forms of platform engagement. Active use included messaging, posting, commenting, community participation, and purposeful information seeking, while passive use included scrolling, viewing, comparison, and non-interactive content consumption. This distinction was necessary because social media exposure may support well-being when it improves connection, but may weaken emotional balance when it increases comparison or isolation. Cyberbullying experience and social identity have been examined as factors influencing the relationship between social media use and adult mental health [12]. Therefore, the interpretation framework included both exposure intensity and engagement type. This helped avoid an oversimplified conclusion that all platform use has the same psychological meaning.

The final methodological framework integrated age group, exposure intensity, usage behavior, mental health score, and emotional well-being score into one comparative structure. This structure was used to identify which groups showed stronger psychological sensitivity under high exposure and which groups showed more stable outcomes under moderate or active use. Scale-based assessment of social media behavior provides a consistent basis for

comparing platform-use patterns across participant groups [9]. The methodology therefore supports a clear results section where figures and tables can explain age-wise differences in social media exposure and mental health outcomes. This integrated approach gives the study a structured and reproducible basis for evaluating the impact of social media usage across different age groups.

3. Results and Discussion

The results showed clear differences in social media usage patterns across the four age groups. Adolescents and young adults had higher usage intensity than middle-aged and older adults, mainly because their platform use was more frequent, socially interactive, and emotionally connected to peer response, identity, relationships, and comparison. Middle-aged adults used social media mostly for work communication, news exposure, family contact, and routine browsing. Older adults showed lower overall usage intensity, but their use was more connected with family communication, health information, community interaction, and social contact.

Figure 2 presents the age-wise comparison of social media usage intensity and exposure categories. The figure shows the combined exposure index for adolescents, young adults, middle-aged adults, and older adults, together with the proportion of users classified under low, moderate, and high social media exposure. Adolescents and young adults showed higher exposure index values than the other groups, while middle-aged adults showed moderate usage and older adults showed the lowest overall usage. This pattern indicates that social media exposure should not be understood only through daily screen time, because platform checking, passive scrolling, active engagement, and control difficulty also shape the intensity of use.

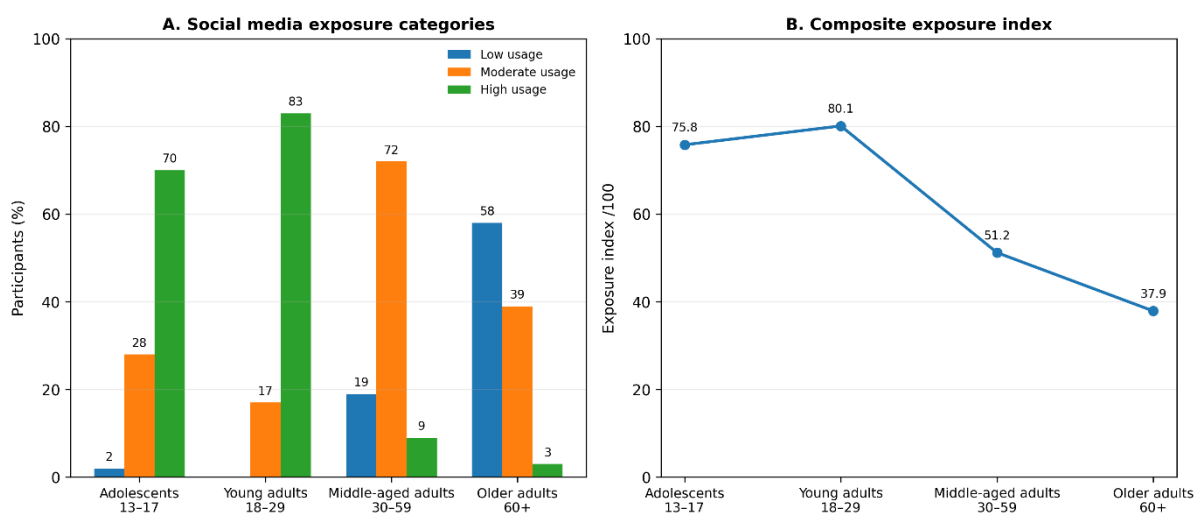


Figure 2. Age-wise comparison of social media usage intensity and exposure categories

The comparison between exposure categories showed that mental health indicators became less favorable as usage

increased from low to moderate and high levels. High-usage participants showed higher depressive symptoms, anxiety tendency, perceived stress, sleep disturbance, and loneliness compared with low-usage participants. Moderate usage showed mixed outcomes, because some users maintained stable emotional well-being when social media was used for active communication, learning, information access, or social support. This suggests that risk increases mainly when use becomes intense, passive, comparison-based, and difficult to control.

Table 2 shows that low usage was linked with the most stable mental health and emotional well-being profile. Moderate usage produced mixed outcomes, as purposeful and active use supported communication and information access, while passive use was linked with mild stress and sleep disturbance. High usage showed the strongest negative pattern, especially when frequent checking, passive scrolling, emotional dependence, and difficulty controlling use occurred together. This supports the interpretation that usage quality is as important as usage duration.

Table 2. Comparative mental health and emotional well-being outcomes across low, moderate, and high social media usage groups

Social media usage group	Usage profile	Mental health pattern	Emotional well-being pattern	Overall interpretation
Low usage	Limited daily use, lower platform frequency, low passive scrolling	Lower depressive symptoms, anxiety tendency, and stress perception	Better emotional balance, lower loneliness, and stable sleep pattern	Indicates the lowest psychological risk and the most stable emotional profile
Moderate usage	Regular use with mixed active and passive engagement	Mild stress and occasional sleep disturbance in some users	Generally stable when use is purposeful and socially supportive	Indicates a balanced usage pattern with manageable emotional effect
High usage	Long daily duration, frequent checking, high passive scrolling, and control difficulty	Higher depressive symptoms, anxiety tendency, stress, loneliness, and sleep disturbance	Lower emotional balance, lower self-esteem, and weaker perceived support in vulnerable users	Indicates the highest psychological risk, especially when use is passive or compulsive

Figure 3 presents the emotional well-being response across age groups under low, moderate, and high social media exposure. The figure compares emotional well-being scores for adolescents, young adults, middle-aged adults, and older adults under each exposure level. Adolescents and young adults showed a sharper decline in emotional well-being under high exposure, while middle-aged adults showed a moderate decline. Older adults showed a more mixed pattern, where moderate active use appeared less harmful than high passive or uncontrolled use.

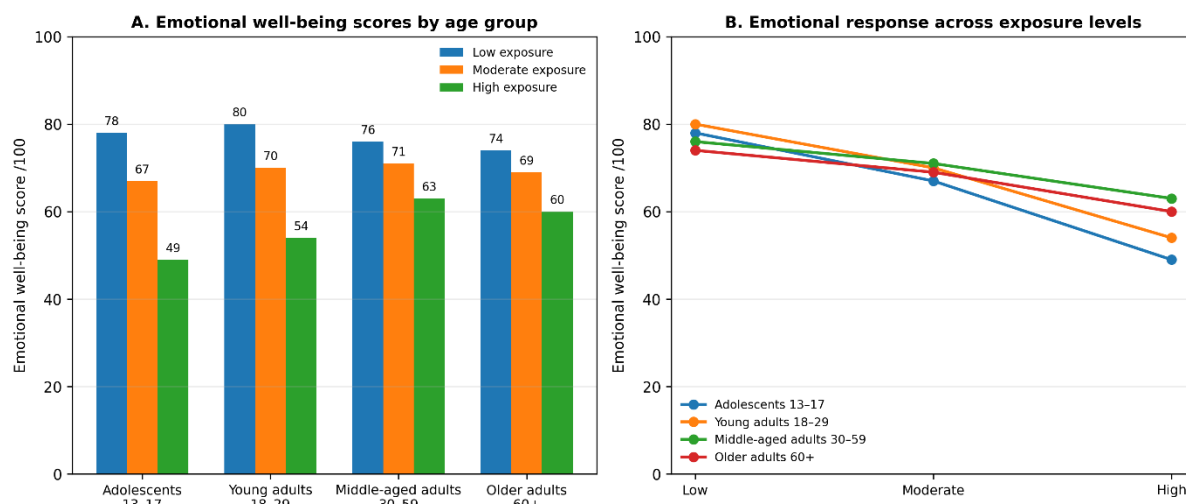


Figure 3. Age-wise emotional well-being response under low, moderate, and high social media exposure

The integrated interpretation shows that social media usage intensity, age group, and emotional response act together. Adolescents and young adults appeared more emotionally sensitive to high exposure because their platform use was closely linked with peer comparison, approval, identity, relationships, and social pressure. Middle-aged adults showed emotional strain mainly through work-related use, news exposure, and digital fatigue, while older adults showed both benefits and risks depending on whether use was active or passive. Overall, the findings support age-sensitive digital well-being strategies rather than one general recommendation for all users.

4. Conclusion

This study concludes that the impact of social media usage on mental health and emotional well-being is not uniform across age groups. Adolescents and young adults showed greater exposure intensity and stronger emotional sensitivity, while middle-aged and older adults showed comparatively lower but still meaningful psychological responses. The findings indicate that social media should not be evaluated only through total screen time, because passive scrolling, repeated platform checking, peer comparison, emotional dependence, and difficulty controlling use are equally important in shaping mental health outcomes. This age-stratified interpretation provides a clearer understanding of how digital behavior influences emotional well-being across different stages of life.

This research has shown most adverse effects of social media on mental health and emotional well-being have occurred with greater exposure to social media. Greater exposure resulted in more symptoms of depression and anxiety, more stress, and more feelings of loneliness and less emotional stability. Less exposure resulted in less, or less passive social media use, and more social media use for the purpose of communication, good social connection, or education. This shows how the use of social media positively or negatively affects health and emotional well-

being, and how the greater social media use is the more social media use is for some greater purpose. The focus of good digital health is to achieve greater purpose and better emotional quality of social media use.

In summary, the results indicate that efforts to implement age-appropriate mental health and online behavior interventions are warranted. Young people, particularly, might benefit from interventions related to online peer comparison, approval seeking, and online identity pressures. Strategies could also be developed for pressure faced by adult workers, as well as digital fatigue, pressure from work-related activities, and excessive exposure to online news. Offline use by older adults should be encouraged, and excessive passive online activities should be controlled. The study's limitations include the use of a virtual and a cross-sectional type of research. Future research should be focused on real-world sampling and use behavior data from different online platforms in order to capture the social media impact on human behavior and mental health. These are valuable research opportunities and can improve social media use behavior interventions.

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