

The Impact of Social Media on Mental Health in Young Adults: A Cross-Sectional Study

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Abstract: *Social media has become an integral part of young adults' daily lives, providing opportunities for communication, information sharing, and social support. However, concerns remain regarding its potential association with emotional well-being, sleep, social comparison, and online harassment. The present study examined social media use and self-reported mental health-related experiences among young adults aged 18–25 years. A quantitative, cross-sectional survey design was employed. Data were collected through an online questionnaire, and 99 consenting responses were included after excluding three responses from participants who did not consent. Descriptive statistics and Spearman's rank-order correlation were used. Instagram was the most frequently reported platform (74.7%), and 64.6% reported using social media for at least three hours daily. Usage duration was positively associated with checking social media immediately after waking ($p = .368, p < .001$) and spending more time on social media than intended ($p = .358, p < .001$); both associations remained significant after Bonferroni correction. No statistically significant associations were observed between usage duration and anxiety after use, negative mood, loneliness, sleep disturbance, or social comparison. Although 19.2% reported experiencing online harassment directly or sometimes, participants also reported benefits relating to social connection and access to information. The findings indicate a multifaceted relationship and should not be interpreted causally because of the cross-sectional design and self-report measures.*

Keywords: social media, mental health, young adults, online behaviour

1. Introduction

Social media platforms have transformed how young adults communicate, maintain relationships, access information, and express themselves. These platforms can facilitate social interaction and emotional support. At the same time, frequent engagement may expose users to social comparison, negative online interactions, sleep-related disruption, and patterns of use that are difficult to regulate.

Previous research has reported mixed findings regarding social media use and psychological well-being. Primack et al. (2017) found an association between social media use and perceived social isolation among young adults. Vogel et al. (2014) examined social networking site use, social comparison, and self-perceptions. Verduyn et al. (2017) discussed how different forms of social media engagement may have different consequences for well-being. Orben and Przybylski (2019) reported a small association between digital technology use and adolescent well-being in large-scale analyses, underscoring the need for cautious interpretation.

Social media use may involve experiences that are not adequately captured by daily duration alone. The purpose of use, users' expectations, the nature of online interactions, and the degree of control users experience may all be relevant. Online platforms can also provide benefits, including maintaining social connections and obtaining useful information. Social media should therefore not be treated as uniformly harmful or beneficial.

The present study examined social media use among young adults aged 18–25 years and its associations with selected

self-reported emotional, behavioural, and social experiences. The study considered daily usage duration, checking habits, anxiety after use, negative mood, loneliness, sleep disturbance, social comparison, online harassment, and perceived benefits.

Objectives

To describe social media usage patterns among young adults; to examine associations between daily usage duration and selected behavioural and emotional experiences; and to describe participants' reports of online harassment and perceived benefits.

Research Question

How is daily social media usage duration associated with selected self-reported emotional, behavioural, and social experiences among young adults aged 18–25 years?

2. Literature Survey

Research on social media and well-being points to a complex relationship. Primack et al. (2017) examined social media use in relation to perceived social isolation among young adults. Vogel et al. (2014) investigated social comparison and self-esteem in social networking contexts, while Verduyn et al. (2017) reviewed evidence on whether social networking sites enhance or undermine subjective well-being. These studies suggest that the consequences of use may depend on the nature of engagement and the psychological processes involved.

Research has also examined digital media use in relation to

broader psychological outcomes. Orben and Przybylski (2019) cautioned against interpreting associations between digital technology use and well-being as necessarily large or uniformly negative. Woods and Scott (2016) examined social media use and sleep and psychological well-being among adolescents. Although relevant to the current topic, findings from adolescent samples cannot be assumed to apply directly to all young adults.

Online interactions are another important dimension. Kowalski et al. (2014) reviewed research on cyberbullying among young people, while Best et al. (2014) reviewed online communication, social media, and adolescent well-being. Together, this literature supports studying both potential benefits and concerns, including social connection, negative interactions, sleep-related experiences, and social comparison.

The present study contributes a small-sample, cross-sectional description of young adults' reported use and experiences. It focuses on whether daily duration is associated with selected items, while also describing reported harassment and perceived benefits. Because the questionnaire uses self-developed, single-item measures, the findings are exploratory and are not equivalent to results obtained using validated clinical scales.

3. Methodology

3.1 Research design

A quantitative, non-experimental, cross-sectional survey design was used. The study examined associations between reported daily social media usage duration and selected experiences without manipulating exposure. As data were collected at one point in time, causal conclusions cannot be drawn.

3.2 Participants and sampling

The dataset contained 102 submitted responses. Three responses were excluded because consent was not provided, leaving 99 consenting participants aged 18–25 years for analysis. Participants were recruited through an online survey using convenience sampling. The sample included 75 female participants (75.8%) and 24 male participants (24.2%).

3.3 Measure and procedure

Data were collected using an online, self-developed questionnaire covering demographic characteristics, social media usage patterns, emotional experiences, social comparison, online harassment, and perceived benefits. Items included categorical responses and five-point rating scales. The questionnaire was self-report and was not a validated diagnostic instrument. No claim of psychometric validation or reliability testing is made.

3.3 Procedure and ethics

Consent was used as an inclusion requirement, and three non-consenting responses were excluded.

3.4 Data analysis

Frequencies and percentages were used to summarize demographic characteristics, social media usage, and questionnaire responses. Spearman's rank-order correlation was used to examine associations between daily usage duration and nine selected behavioural and emotional items. Statistical significance was initially assessed at $p < .05$. A Bonferroni-adjusted threshold of $p < .0056$ ($0.05/9$) was used to interpret the nine correlations.

4. Results

The final analysis included 99 consenting participants aged 18–25 years. The largest age group was 18–20 years (38.4%), followed by 21–23 years (34.3%) and 24–25 years (27.3%).

Table 1: Demographic characteristics of participants (N = 99)

Characteristic	n	%
Age 18–20 years	38	38.4
Age 21–23 years	34	34.3
Age 24–25 years	27	27.3
Female	75	75.8
Male	24	24.2

Daily usage varied across participants. Four (4.0%) reported less than one hour per day, 31 (31.3%) reported one to two hours, 38 (38.4%) reported three to four hours, and 26 (26.3%) reported more than four hours. Overall, 64 participants (64.6%) reported at least three hours of daily use. Instagram was the most frequently reported platform (74.7%).

Table 2: Daily social media use and most-used platform

Measure	Category	n	%
Daily duration	Less than 1 hour	4	4
	1–2 hours	31	31.3
	3–4 hours	38	38.4
	More than 4 hours	26	26.3
Most-used platform	Instagram	74	74.7
	Other	19	19.2
	Snapchat	3	3
	Facebook	2	2
	X	1	1

Spearman's rank-order correlations were calculated between daily social media duration and nine selected experiences.

Table 3: Spearman correlations between daily social media duration and selected experiences

Experience	Spearman's ρ	p-value
Checking social media immediately after waking	0.368	< .001
Spending more time than intended	0.358	< .001
Social media use at bedtime	0.253	0.012
Urge to check notifications	0.216	0.032
Anxiety after social media use	0.062	0.544
Negative mood after use	-.061	0.55
Loneliness despite online activity	0.03	0.765
Sleep disturbance	0.132	0.192
Social comparison	-.056	0.582

Daily usage duration was positively associated with checking social media immediately after waking ($p = .368$, $p < .001$) and spending more time on social media than intended ($p = .358$, $p < .001$). Both associations remained statistically significant after Bonferroni correction. Associations with bedtime use and the urge to check notifications were significant at the unadjusted .05 level but did not meet the adjusted threshold. No statistically significant associations were detected between daily duration and anxiety after use, negative mood, loneliness, sleep disturbance, or social comparison.

For emotional and sleep-related items, 18 participants (18.2%) selected ratings of 4–5 for anxiety after use, 23 (23.2%) for negative mood, and 26 (26.3%) for loneliness despite online activity. Thirty-four (34.3%) selected ratings of 4–5 for sleep disturbance, while 42 (42.4%) selected ratings of 1–2.

For social comparison and self-esteem-related items, 63 participants (63.6%) selected ratings of 1–2 for social comparison, 70 (70.7%) for feeling inferior, 65 (65.7%) for the perception that social media lowers self-esteem, and 60 (60.6%) for pressure to present a perfect image online.

Eleven participants (11.1%) reported online harassment and eight (8.1%) selected “sometimes,” a combined 19.2%. Thirty-five (35.4%) agreed or strongly agreed that they felt unsafe expressing opinions online, 26 (26.3%) reported avoiding posting because of negative feedback, and 32 (32.3%) agreed or strongly agreed that harassment affected their emotional well-being.

Perceived benefits were also reported: 73 participants (73.7%) agreed or strongly agreed that social media helped them maintain connections, 78 (78.8%) that it was useful for information, 33 (33.3%) that it provided emotional support, and 36 (36.4%) that it improved confidence. On the overall mental health impact item, 14 (14.1%) agreed, 65 (65.7%) were neutral, and 20 (20.2%) disagreed.

5. Discussion

The primary correlation findings were that longer daily use was associated with checking social media immediately after waking and spending more time on social media than intended. These results indicate that usage duration was related to some checking and self-regulation behaviours in this sample. The associations do not establish whether longer use leads to these habits or whether people with these habits accumulate longer usage time.

Daily duration was not significantly associated with self-reported anxiety after use, negative mood, loneliness, sleep disturbance, or social comparison. These non-significant results should not be interpreted as proof that no relationship exists; the findings are specific to this sample, these items, and the study design. Orben and Przybylski (2019) similarly emphasized careful interpretation of associations between digital technology use and well-being.

Participants reported both positive and negative experiences. Social connection and access to information

were frequently endorsed, while a subset reported harassment-related concerns. This supports examining the quality and context of online experiences in addition to time spent on platforms.

Previous reviews have likewise discussed both opportunities and risks associated with online communication (Best et al., 2014; Kowalski et al., 2014).

Interpretation is limited by convenience sampling, the gender imbalance, self-report data, and a self-developed questionnaire using single-item measures. The study did not use validated multi-item clinical scales and cannot support diagnostic conclusions. Future research should use more diverse samples, validated measures, and longitudinal designs to explore how different forms of engagement relate to well-being.

6. Implications

The findings suggest that discussions of digital well-being should consider checking habits, perceived control over time spent, the quality of online interactions, and the benefits users receive from social media. Educational and counselling settings may encourage reflective use, digital boundaries, and strategies for responding to online harassment. These are general implications rather than intervention effects tested by this study.

7. Limitations and Future Research

- The cross-sectional design does not establish temporal order or causation.
- Convenience sampling and the predominantly female sample limit generalizability.
- Self-report responses may be influenced by recall and response biases.
- The self-developed questionnaire used single-item measures and was not a validated diagnostic instrument.
- The study did not establish whether other factors explain variation in emotional experiences.

Future research should recruit larger and more diverse samples, use validated multi-item measures, and distinguish passive browsing, active interaction, content type, and purpose of use. Longitudinal studies could help clarify temporal relationships.

8. Conclusion

This study examined social media use and self-reported mental health-related experiences among 99 young adults aged 18–25 years. Instagram was the most frequently reported platform, and 64.6% reported at least three hours of daily use. Longer daily usage was associated with checking social media immediately after waking and spending more time than intended. No statistically significant associations were detected between duration and anxiety after use, negative mood, loneliness, sleep disturbance, or social comparison. Participants also reported benefits related to social connection and information, alongside concerns about online harassment. The findings suggest a multifaceted relationship that cannot be characterized by duration alone.

Because the study was cross-sectional and relied on self-report measures, the results should be interpreted as associations rather than evidence of causation.

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