



Jurnal Ilmiah Pendidikan Citra Bakti

p-ISSN 2355-5106 || e-ISSN 2620-6641

<https://jurnal.citrabakti.ac.id/index.php/jil>



EXAMINING THE RELATIONSHIP BETWEEN SOCIAL MEDIA ADDICTION AND MULTIPLE DIMENSIONS OF STUDENT ENGAGEMENT AMONG UNDERGRADUATE STUDENTS IN MAKASSAR, INDONESIA

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Article History

Received:
June 9, 2026

Accepted:
July 22, 2026

Published:
August 26, 2026

Abstract

Social media addiction has become increasingly prevalent among university students and has been associated with various academic, emotional, and social outcomes. However, previous studies have primarily emphasized academic performance and psychological distress, with limited attention to multiple dimensions of student engagement, particularly peer and teacher engagement. This study examined the relationship between social media addiction and academic, affective, peer, and teacher engagement among undergraduate students from private universities in Makassar, Indonesia. A quantitative cross-sectional design was employed involving 129 students selected through simple random sampling. Data were collected using Indonesian-adapted versions of the Smartphone Application-Based Addiction Scale (SABAS) and the Higher Education Student Engagement Scale (HESES) via an online questionnaire. Structural Equation Modeling–Partial Least Squares (SEM-PLS) with SmartPLS 4 was used for data analysis. The findings showed that social media addiction was positively associated with academic engagement ($\beta = 0.215$, $p = .011$), whereas its relationships with affective, peer, and teacher engagement were not statistically significant. These results suggest that the influence of social media addiction varies across different dimensions of student engagement rather than being uniformly detrimental. This study contributes to the literature by integrating multiple engagement dimensions within a single model. Given the cross-sectional design and context-specific sample, the findings should be interpreted cautiously and not generalized beyond similar settings. Universities may benefit from promoting digital literacy and responsible social media use while supporting student engagement. Further research across diverse educational contexts is needed to validate these findings.

Keywords: Social media addiction, Student engagement, Higher education, SEM-PLS, Indonesia.

Abstrak: Adiksi media sosial telah menjadi fenomena yang semakin umum di kalangan mahasiswa dan dikaitkan dengan berbagai luaran akademik, emosional, dan sosial. Namun, penelitian sebelumnya lebih banyak berfokus pada prestasi akademik dan distress psikologis, sementara perhatian terhadap berbagai dimensi keterlibatan mahasiswa, khususnya keterlibatan dengan teman sebaya dan dosen, masih terbatas. Penelitian ini bertujuan menguji hubungan antara adiksi media sosial dengan keterlibatan akademik, afektif, teman sebaya, dan dosen pada mahasiswa sarjana dari perguruan tinggi swasta di Kota Makassar, Indonesia. Penelitian menggunakan desain kuantitatif potong lintang (*cross-sectional*) yang melibatkan 129 mahasiswa yang dipilih melalui *simple random sampling*. Data dikumpulkan menggunakan versi adaptasi bahasa Indonesia dari *Smartphone Application-Based Addiction Scale* (SABAS) dan *Higher Education Student Engagement Scale* (HESES) melalui kuesioner daring. Analisis dilakukan menggunakan *Structural Equation Modeling–Partial Least Squares* (SEM-PLS) dengan SmartPLS 4. Hasil penelitian menunjukkan bahwa adiksi media sosial berhubungan positif dengan keterlibatan akademik ($\beta = 0,215$; $p = 0,011$), sedangkan hubungannya dengan keterlibatan afektif, teman sebaya, dan dosen tidak signifikan secara statistik. Temuan ini menunjukkan bahwa pengaruh adiksi media sosial dapat berbeda pada setiap dimensi keterlibatan mahasiswa dan tidak selalu bersifat merugikan. Penelitian ini berkontribusi dengan mengintegrasikan berbagai dimensi keterlibatan mahasiswa dalam satu model. Mengingat desain potong lintang dan sampel yang terbatas pada konteks tertentu, temuan ini perlu diinterpretasikan secara hati-hati dan tidak digeneralisasikan di luar konteks yang serupa. Perguruan tinggi dapat memperoleh manfaat dari upaya meningkatkan literasi digital dan penggunaan media sosial yang bertanggung jawab sambil mendukung keterlibatan mahasiswa. Penelitian selanjutnya pada konteks pendidikan yang lebih beragam diperlukan untuk mengonfirmasi temuan ini.

Kata-kata Kunci: Adiksi media sosial; Keterlibatan mahasiswa; Pendidikan tinggi; SEM-PLS; Indonesia.

Background

The rapid advancement of digital technology has transformed the way university students communicate, obtain information, and engage in academic activities. Social media platforms such as Instagram, TikTok, X, Facebook, and WhatsApp have become integral components of students' daily lives, offering opportunities for communication, collaboration, entertainment, and learning. While social media provides various educational and social benefits, its excessive and uncontrolled use has raised concerns regarding the emergence of social media addiction (SMA), a behavioral phenomenon characterized by compulsive engagement, loss of control, excessive preoccupation, and continued use despite negative consequences. Recent evidence indicates that SMA has become an increasingly prevalent issue among young adults and university students worldwide, particularly in Asian countries where social media penetration rates are among the highest globally (Salari et al., 2023).

Recent evidence indicates that social media addiction is increasingly prevalent among university students worldwide, with particularly high rates reported in Asia and several Middle Eastern countries (Salari et al., 2023; Alfaya et al., 2023). The COVID-19 pandemic further intensified problematic social media use among students (Liu et al., 2025). These findings suggest that social media addiction is no longer an isolated behavioral concern but rather an emerging educational and psychological issue that may influence students' overall functioning and development.

Previous studies consistently show that social media addiction is associated with poorer academic functioning, including reduced concentration, time management, self-regulation, and academic engagement, often through mechanisms such as procrastination and cognitive overload (Masood et al., 2020; Pekpazar et al., 2021; Mou et al., 2024). Research further indicates that students experiencing higher levels of social media addiction tend to report lower academic engagement and reduced participation in learning activities (Zhuang et al., 2023; Mou et al., 2024). Social media addiction has also been linked to technostress, mental exhaustion, and disruptions in sustained attention, all of which can hinder effective learning experiences (Masood et al., 2020; Liu et al., 2023). Although some studies have identified limited positive academic functions of social media, such as facilitating knowledge acquisition and academic collaboration, the overall evidence suggests that problematic and addictive patterns of use are predominantly associated with poorer academic outcomes (Demeke, 2024; Ismail et al., 2025).

Social media addiction has also been linked to adverse emotional and psychological outcomes, including depression, anxiety, stress, loneliness, and emotional dysregulation (Malak et al., 2022; Chauhan et al., 2025; Quaglieri et al., 2022). Studies examining affective functioning have shown that negative affect tends to increase vulnerability to social media addiction, whereas positive affect may serve as a protective factor that reduces the likelihood of problematic use and its negative consequences (Li et al., 2020; Liñan, 2025). These findings indicate that social media addiction is not merely a behavioral issue but is closely intertwined with students' emotional well-being and psychological adjustment.

Another important area receiving increasing attention concerns the role of social support in relation to social media addiction. Social support represents a critical protective resource that facilitates adaptive functioning and psychological well-being among university students. Existing evidence suggests that social media addiction is associated with reduced social connectedness, interpersonal difficulties, emotional loneliness, and lower perceived social support (Kara, 2026; Uyaroğlu et al., 2022). Excessive engagement in online interactions may gradually replace meaningful face-to-face relationships, weakening students' sense of belonging (Kara, 2026). Research further indicates that social support, particularly peer support, may buffer the adverse effects of social media addiction on mental health and academic functioning (Yeh et al., 2025; Cai et al., 2026; Qi et al., 2024), although some studies suggest that intensive social media use may also enhance perceived social support through increased online connectivity (Ulwiyyah & Zhang, 2022). In contrast, teacher support remains comparatively underexplored despite its potential role in strengthening students' competence, belongingness, motivation, and academic adjustment. Consequently, limited empirical evidence is available regarding how teacher support relates to social media addiction and

whether it may mitigate its adverse academic and psychological consequences, representing an important gap in the existing literature.

From a theoretical perspective, several frameworks have been employed to explain social media addiction, including Uses and Gratifications Theory, Social Cognitive Theory, Compensatory Internet Use Theory, Self-Determination Theory, and the Interaction of Person-Affect-Cognition-Execution (I-PACE) Model (Sun & Zhang, 2021; Kalam et al., 2023; Lin et al., 2023). Among the theoretical approaches to social media addiction, Uses and Gratifications Theory (UGT) and the I-PACE model are particularly relevant because they explain how psychological needs, social relationships, and contextual factors shape problematic social media use and its consequences (Sun & Zhang, 2021; Zhao et al., 2024).

Several methodological limitations further justify the need for additional investigation. Most previous studies have employed cross-sectional designs and relied heavily on self-report measures, limiting the ability to capture the complexity of social media addiction and its associated outcomes (Salari et al., 2023; Landa-Blanco et al., 2024). Moreover, evidence from developing countries remains relatively limited compared with studies conducted in Western contexts and selected East Asian nations (Ngadan et al., 2026; Yahya & Rahim, 2017). Within Southeast Asia, research exploring the simultaneous relationships among social media addiction, academic experiences, affective functioning, peer support, and teacher support remains scarce. Consequently, current knowledge may not adequately reflect the sociocultural and educational realities experienced by university students in Indonesia.

This issue is particularly relevant in Makassar, one of Indonesia's major educational centers, where university students experience increasing exposure to digital technologies and social media platforms. Despite the widespread use of social media among students in the city, empirical evidence regarding how social media addiction relates to academic experiences, affective functioning, peer support, and teacher support remains limited. Without such evidence, universities may face difficulties in designing effective interventions aimed at promoting digital well-being, enhancing academic engagement, and strengthening social support systems among students.

Therefore, the present study aims to examine the relationships between social media addiction, academic experiences, affective functioning, peer support, and teacher support among students enrolled in private universities in Makassar. By integrating these variables within a single model, the study seeks to provide a more comprehensive understanding of the academic, emotional, and social correlates of social media addiction while addressing important theoretical, empirical, and contextual gaps in the existing literature.

Method

This study employed a quantitative research approach using a cross-sectional survey design. The study aimed to examine the relationships between social media addiction and student engagement dimensions, namely academic engagement, affective engagement, peer engagement, and teacher engagement among university students. The participants were undergraduate students enrolled in several private universities in Makassar, Indonesia. A total of 129 students participated in the study. Participants were recruited using a convenience sampling approach. The survey link was distributed to undergraduate students from private universities in Makassar, and participation was voluntary. This non-probability sampling method was considered appropriate given the practical constraints of data collection and the study's cross-sectional design. The inclusion criteria were: (a) currently enrolled as an undergraduate student at a private university in Makassar, (b) actively using social media applications, and (c) willing to participate voluntarily in the study.

Table 1. Demographic Characteristics of Participants (n = 129)

Variable	Category	n	%
Gender	Male	47	36.4
	Female	82	63.6
Age Group	17-18 years	10	7.8
	19-20 years	42	32.6
	21-22 years	63	48.8
	23-24 years	9	7.0
	>25	5	3.9

Two instruments were used in this study. The first instrument was the Smartphone Application-Based Addiction Scale (SABAS), originally developed by Csibi et al. (2018) and later adapted into Indonesian by Nurmala et al (2022). The scale consists of six items that measure addiction tendencies toward smartphone-based applications based on the components model of addiction. The Indonesian version demonstrated satisfactory psychometric properties with Cronbach's alpha of .74 and McDonald's omega of .79. The second instrument was the Higher Education Student Engagement Scale (HESES) developed by Zhoc et al. (2019). The original instrument measures five dimensions of student engagement, namely academic engagement, cognitive engagement, social engagement with peers, social engagement with teachers, and affective engagement. Consistent with the objectives of the present study, only four dimensions were retained, namely academic engagement, affective engagement, peer engagement, and teacher engagement. The HESES items were translated into Indonesian using an AI-assisted translation procedure and subsequently reviewed by the research team to improve linguistic clarity and contextual appropriateness. Minor wording adjustments were made to enhance readability while

preserving the meaning of the original items. The original instrument demonstrated adequate reliability coefficients ranging from .70 to .87 across dimensions.

Table 2. Measurement Instruments

Variable	Instrument	Number of Items (Initial)
Social Media Addiction	SABAS	6
Academic Engagement	HESES	4
Affective Engagement	HESES	4
Peer Engagement	HESES	4
Teacher Engagement	HESES	4

All items were measured using a Likert-type response format ranging from strongly disagree to strongly agree.

Data were collected online using Google Forms between December 2025 and January 2026. The survey link was distributed to students from several private universities in Makassar. Formal ethical approval was not obtained because questionnaire-based minimal-risk educational research was not subject to mandatory ethics review under the institutional regulations applicable at the time of data collection. Nevertheless, the study adhered to internationally accepted ethical principles for research involving human participants. Before completing the questionnaire, participants were informed about the study's purpose, the voluntary nature of participation, confidentiality of their responses, and the anonymity of the data collected. Electronic informed consent was obtained from all participants before they proceeded to the questionnaire, and participants were free to withdraw at any time without penalty. Completion of the survey required approximately 10–15 minutes.

Data analysis was conducted using IBM SPSS Statistics and SmartPLS 4. Initially, descriptive statistics were calculated to summarize participant responses. Subsequently, Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to examine the relationships among the study variables. PLS-SEM was selected because it is suitable for predictive research models involving multiple latent variables and relatively moderate sample sizes. The analysis followed a two-stage procedure. First, the measurement model was evaluated through indicator loadings, Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's Alpha to assess validity and reliability. Second, the structural model was assessed using path coefficients, coefficient of determination (R^2), and bootstrapping procedures to test the significance of hypothesized relationships.

Table 3. Psychometric of the Measurement Instruments

Construct	Number of Retained Items	Loading Range	Cronbach's Alpha	Composite Reliability	AVE
Social Media Addiction	2	0.806–0.876	0.593	0.829	0.709
Academic Engagement	2	0.893–0.908	0.741	0.885	0.794
Affective Engagement	3	0.735–0.968	0.767	0.869	0.690
Peer Engagement	3	0.778–0.904	0.775	0.869	0.690
Teacher Engagement	3	0.784–0.943	0.885	0.896	0.811

Prior to hypothesis testing, the psychometric properties of the instruments were evaluated. As shown in Table 3, all retained indicators demonstrated satisfactory convergent validity, with factor loadings exceeding the recommended threshold of .70. The AVE values ranged from .690 to .811, indicating adequate convergent validity. Composite reliability coefficients ranged from .829 to .896, suggesting acceptable construct reliability. Although the Cronbach's alpha coefficient for the Social Media Addiction construct was slightly below the conventional threshold, the construct was retained because its composite reliability and AVE values met the recommended criteria for PLS-SEM.

All constructs were initially specified using their original reflective indicators. During assessment of the measurement model, indicators with unsatisfactory outer loadings were removed following established PLS-SEM guidelines to improve measurement quality while maintaining theoretical interpretability (Hair et al., 2022). Consequently, the final model retained two indicators for Social Media Addiction, two for Academic Engagement, and three indicators each for Affective Engagement, Peer Engagement, and Teacher Engagement. Although reflective constructs are generally recommended to include at least three indicators, PLS-SEM literature recognizes that two-indicator constructs may be acceptable when both indicators demonstrate satisfactory psychometric properties and adequately represent the underlying latent construct (Hair et al., 2022). Nevertheless, reducing the number of indicators may have narrowed the conceptual coverage of Social Media Addiction and Academic Engagement. Therefore, the findings should be interpreted with caution, and future studies should validate the complete instruments across diverse samples.

Result and Discussion

Prior to testing the structural model, the measurement model was evaluated to assess convergent validity, discriminant validity, and construct reliability. Convergent validity was examined using outer loadings and Average Variance Extracted (AVE). The results showed

that all retained indicators had loading values above the recommended threshold of .70, indicating satisfactory indicator reliability.

Table 4. Measurement Model Assessment

Construct	Indicator	Loading	Cronbach's Alpha	Composite Reliability	AVE
Academic Engagement	Academic1	0.908	0.768	0.896	0.811
	Academic2	0.893			
Affective Engagement	Affect2	0.968	0.841	0.879	0.711
	Affect3	0.735			
	Affect4	0.809			
Social Media Addiction	SABAS5	0.876	0.593	0.829	0.709
	SABAS6	0.806			
Peer Engagement	Soc.Peer1	0.904	0.794	0.869	0.690
	Soc.Peer2	0.778			
	Soc.Peer3	0.805			
Teacher Engagement	Soc.Teach2	0.784	0.820	0.885	0.720
	Soc.Teach3	0.943			
	Soc.Teach4	0.810			

Table 4 indicates satisfactory convergent validity and internal consistency across all constructs.

Discriminant validity was evaluated using the Fornell–Larcker criterion and the Heterotrait–Monotrait Ratio (HTMT).

Table 5. Fornell–Larcker Criterion

Construct	Academic	Affect	SMA	Peer	Teacher
Academic	0.901				
Affect	0.217	0.843			
SMA	0.215	0.134	0.842		
Peer	0.071	0.157	-0.182	0.831	
Teacher	0.121	0.309	-0.083	0.361	0.849

The Fornell–Larcker criterion indicated adequate discriminant validity because the square root of AVE for each construct was greater than its correlations with other constructs (Hair et al., 2022).

Table 6. HTMT Values

Construct Pair	HTMT
Academic – Affect	0.265
Academic – SMA	0.318
Academic – Peer	0.130
Academic – Teacher	0.137
Affect – SMA	0.151

Construct Pair	HTMT
Affect – Peer	0.234
Affect – Teacher	0.398
SMA – Peer	0.232
SMA – Teacher	0.107
Peer – Teacher	0.397

Discriminant validity was further supported by HTMT values below the recommended threshold of 0.90, indicating that the constructs were empirically distinct (Hair et al., 2022). The explanatory power of the model was evaluated using the coefficient of determination (R^2).

Table 7. Coefficient of Determination (R^2)

Endogenous Variable	R^2	Adjusted R^2
Academic Engagement	0.046	0.039
Affective Engagement	0.018	0.010
Peer Engagement	0.033	0.026
Teacher Engagement	0.007	-0.001

Table 7 shows that social media addiction explained 4.6% of the variance in academic engagement, 1.8% of the variance in affective engagement, 3.3% of the variance in peer engagement, and 0.7% of the variance in teacher engagement. The R^2 values (.007–.046) indicate limited explained variance, which is expected given that the structural model included only a single predictor of student engagement. In PLS-SEM, R^2 values should be interpreted in relation to the study context and model complexity rather than using universal cut-off criteria (Hair et al., 2022).

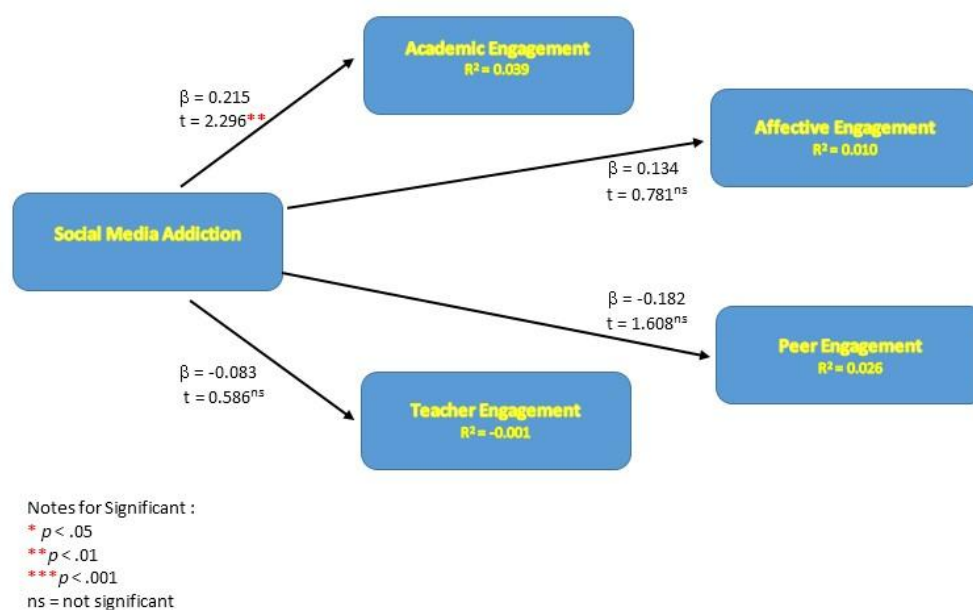


Figure 1. Structural Model of Social Media Addiction and Student Engagement Dimensions

Figure 1 illustrates the structural relationships between social media addiction and the four dimensions of student engagement included in the study.

Hypothesis testing was conducted using the bootstrapping procedure in SmartPLS 4. The path coefficients, t-values, and p-values are presented in Table 8.

Table 8. Path Coefficients and Hypothesis Testing

Path	β	SD	t	P	Decision
SMA → Academic Engagement	0.215	0.094	2.296	0.011	Supported
SMA → Affective Engagement	0.134	0.172	0.781	0.217	Not Supported
SMA → Peer Engagement	-0.182	0.113	1.608	0.054	Not Supported
SMA → Teacher Engagement	-0.083	0.141	0.589	0.278	Not Supported

As shown in Table 8, social media addiction was significantly associated with academic engagement ($\beta = 0.215$, $p = .011$). The relationships between social media addiction and affective engagement ($\beta = 0.134$, $p = .217$), peer engagement ($\beta = -0.182$, $p = .054$), and teacher engagement ($\beta = -0.083$, $p = .278$) were not statistically significant. Although the relationship between social media addiction and peer engagement did not reach the conventional level of statistical significance ($\beta = -0.182$, $p = .054$), the p-value was close to the .05 threshold, suggesting a weak negative trend. This finding may indicate that higher levels of social media addiction are associated with lower peer engagement, although the evidence was insufficient to support a statistically significant relationship in the present sample.

Discussion

This study found that social media addiction was significantly associated only with academic engagement, whereas its associations with affective, peer, and teacher engagement were not significant. These findings indicate that the influence of social media addiction on student functioning may be more nuanced than commonly assumed and may differ across various dimensions of engagement.

The most prominent finding of this study was the significant positive association between social media addiction and academic engagement. This finding contrasts with a substantial body of literature reporting that social media addiction is associated with lower academic achievement, increased academic procrastination, reduced concentration, and poorer learning outcomes (Pekpazar et al., 2021; Malak et al., 2022; Caratiquit & Caratiquit, 2023; Ning & Inan, 2024; Salari et al., 2023). Previous studies have frequently conceptualized excessive social media use as a source of distraction that interferes with students' ability to focus on academic tasks and maintain productive study habits (Masood et al., 2020; Zhao, 2023). Meta-analytic evidence further suggests that problematic social media use generally exerts a negative influence on academic performance across different educational contexts (Salari et al., 2023).

However, the present findings suggest that the relationship between social media addiction and academic engagement may not always be negative. One possible explanation is that social media has increasingly become integrated into contemporary academic environments. University students frequently use social media platforms to exchange information, discuss assignments, coordinate group projects, access educational resources, and communicate with peers and lecturers. In such contexts, intensive social media use may simultaneously facilitate academic participation and engagement. This interpretation is consistent with studies indicating that social media can support knowledge acquisition, collaborative learning, and educational communication when used for academic purposes (Demeke, 2024; Ismail et al., 2025). Similarly, Kalam et al. (2023) found that students' motivations for social media use can significantly influence educational outcomes, suggesting that the impact of social media depends on how and why it is used rather than solely on the amount of usage.

The finding may also be understood through Uses and Gratifications Theory (UGT), which proposes that individuals actively select media to satisfy specific psychological and functional needs (Kalam et al., 2023). From this perspective, students may engage intensively with social media because these platforms serve important academic functions, including information seeking, learning support, communication, and collaboration. Consequently, high levels of social media engagement may coexist with academic engagement when students perceive social media as a useful academic resource. This interpretation challenges the assumption that social media addiction necessarily undermines academic functioning and suggests that educational contexts should be considered when evaluating the consequences of excessive social media use.

In contrast, social media addiction was not significantly associated with affective engagement. This finding differs from previous studies reporting robust relationships between social media addiction and adverse affective outcomes, including anxiety, depression, stress, loneliness, and psychological distress (Malak et al., 2022; Li et al., 2020; Chauhan et al., 2025; Luo et al., 2025). Research has consistently demonstrated that problematic social media use can contribute to emotional difficulties through mechanisms such as fear of missing out (FoMO), social comparison, sleep disruption, and emotional dysregulation (Li et al., 2020; Quaglieri et al., 2022; Ho et al., 2024). These findings have often led researchers to conclude that social media addiction negatively affects emotional well-being.

Nevertheless, the construct examined in the present study differs from psychological distress variables investigated in most previous studies. Affective engagement refers to students' emotional attachment, enthusiasm, sense of belonging, and positive feelings toward their educational experiences, whereas depression, anxiety, and stress represent indicators of

psychological maladjustment. Therefore, although social media addiction may influence mental health outcomes, it may not necessarily affect students' emotional connection to their university environment. Factors such as institutional climate, academic satisfaction, personal goals, and educational aspirations may exert stronger influences on affective engagement than social media use alone. This distinction is also consistent with the I-PACE model, which proposes that the effects of problematic social media use depend on interactions among personal, cognitive, affective, and contextual factors rather than occurring uniformly across outcomes (Sun & Zhang, 2021; Zhao et al., 2024). Likewise, UGT suggests that students may use social media to satisfy emotional needs without diminishing their emotional attachment to learning, which may explain the non-significant association.

The findings also indicated that social media addiction was not significantly associated with peer engagement. This result appears inconsistent with studies suggesting that problematic social media use contributes to social isolation, loneliness, reduced social connectedness, and weaker interpersonal relationships (Uyaroğlu et al., 2022; Kara, 2026). Previous research has further shown that perceived social support often serves as a protective factor against problematic social media use and its psychological consequences (Qi et al., 2024; Cai et al., 2026). In contrast, individuals with higher levels of social media addiction are frequently reported to experience lower levels of social connectedness and interpersonal satisfaction (Kara, 2026).

A possible explanation for this discrepancy is the changing nature of peer interaction among contemporary university students. Unlike earlier conceptualizations that distinguished online and offline relationships, many students now maintain social relationships simultaneously across both contexts. Social media platforms are often used not only for entertainment but also for maintaining friendships, coordinating social activities, and facilitating peer communication. Consequently, high social media use may not necessarily reduce peer engagement because social interaction itself increasingly occurs through digital channels. The coexistence of these positive and negative social functions is consistent with UGT, which views social media as fulfilling interpersonal needs, while the I-PACE model suggests that social outcomes depend on contextual and individual factors rather than social media use alone. These mechanisms may explain the non-significant association observed in this study.

Similarly, social media addiction was not significantly associated with teacher engagement. Although this finding may initially appear unremarkable, it represents an important contribution because teacher engagement remains one of the least explored variables in social media addiction research. Existing studies have primarily focused on academic performance, academic engagement, psychological distress, social support, and peer relationships (Malak et al., 2022; Landa-Blanco et al., 2024; Feng et al., 2025).

Comparatively little attention has been given to students' engagement with lecturers and academic staff.

The absence of a significant relationship suggests that students' interactions with lecturers may be influenced more strongly by institutional and instructional factors than by social media behaviors. According to the Higher Education Student Engagement framework, teacher engagement reflects the quality of interaction between students and lecturers, including accessibility, instructional support, academic guidance, and classroom experiences (Zhoc et al., 2019). These dimensions may depend more heavily on educational practices and institutional culture than on students' social media use patterns. Therefore, social media addiction alone may provide limited explanatory power in understanding teacher engagement, a finding consistent with the I-PACE model, which emphasizes contextual influences on behavioral outcomes, and with UGT, as students typically use social media primarily to satisfy peer-related rather than lecturer-related communication needs.

From a theoretical perspective, the findings provide partial support for both Uses and Gratifications Theory (UGT) and the I-PACE model. While the positive association with academic engagement aligns with UGT by suggesting that students may use social media to achieve academic goals, the non-significant associations with affective, peer, and teacher engagement indicate that the consequences of problematic social media use are not uniform. This pattern is consistent with the I-PACE model, which emphasizes that behavioral outcomes depend on interactions among individual characteristics and contextual factors rather than social media use alone (Sun & Zhang, 2021; Zhao et al., 2024).

The findings also have practical implications for higher education institutions. Universities should avoid adopting exclusively restrictive approaches toward students' social media use. Rather than relying solely on restrictive policies, universities should promote digital literacy, responsible technology use, and self-regulation to maximize the educational benefits of social media while minimizing its risks.

Several limitations should be acknowledged. First, the cross-sectional design prevents causal conclusions from being drawn regarding the relationships among the variables. Second, all measures relied on self-report responses, which may be influenced by social desirability bias and common method variance. Third, the sample consisted exclusively of students from private universities in Makassar, limiting the generalizability of the findings to other educational contexts. Fourth, the structural model exhibited relatively low coefficients of determination, indicating that social media addiction explained only a small proportion of variance in the engagement dimensions examined. This finding suggests that additional variables may play a more substantial role in predicting student engagement.

Conclusion

The present study provides evidence on the relationships between social media addiction and four distinct dimensions of student engagement among undergraduate students from private universities in Makassar. The pattern of results indicates that the association between social media addiction and student engagement is selective rather than universal, with a significant relationship identified only for academic engagement. This pattern highlights that the educational implications of social media addiction differ across engagement domains and should therefore be interpreted within their specific educational contexts.

This study advances the understanding of social media addiction in higher education by demonstrating that its educational implications should not be interpreted through a single deficit-oriented perspective. Rather than representing a uniformly detrimental phenomenon, problematic social media use appears to have a more differentiated relationship with student engagement, suggesting that its educational significance depends on the specific domain of student functioning being considered. By incorporating academic, affective, peer, and teacher engagement within one analytical framework, this study broadens the scope of previous research and provides a more comprehensive perspective on how digital behaviors intersect with students' engagement in higher education.

The findings also have implications for educational practice. Instead of focusing primarily on restricting students' social media use, higher education institutions should consider strategies that strengthen students' capacity to use digital platforms purposefully and responsibly in support of learning. Developing digital literacy, self-regulated learning, and meaningful technology-enhanced educational experiences may offer greater benefits than approaches centered solely on reducing social media use.

Future studies should therefore investigate broader explanatory models that incorporate variables identified as important in recent literature, including emotional regulation (Quaglieri et al., 2022), social support (Qi et al., 2024; Cai et al., 2026), academic adjustment, academic well-being, digital literacy, self-regulation, and motivational processes. Longitudinal and mixed-methods approaches would also provide deeper insights into how social media addiction influences students' academic and psychosocial development over time. Furthermore, future research should continue examining teacher support and teacher engagement, as these variables remain substantially underrepresented in studies of social media addiction despite their potential importance for student development.

References

- Alfaya, M. A., Abdullah, N. S., Alshahrani, N. Z., Alotaibi, A. S., Alshammari, R. A., Alghamdi, A. A., Almutairi, A. M., Alqahtani, M. A., Alharbi, R. A., Alotaibi, F. A., & Alharbi, N. A. (2023). Prevalence and determinants of social media addiction among medical

- students in a selected university in Saudi Arabia: A cross-sectional study. *Healthcare*, 11(19), 2676. <https://doi.org/10.3390/healthcare11192676>
- Cai, F., Wang, Y., & Jin, S. (2026). The impact of social media addiction on college students' mental health through social support and resilience. *Scientific Reports*, 16. <https://doi.org/10.1038/s41598-026-35779-w>
- Caratiquit, K. D., & Caratiquit, L. J. C. (2023). Influence of social media addiction on academic achievement in distance learning: Intervening role of academic procrastination. *Turkish Online Journal of Distance Education*, 24(4), 134–149. <https://doi.org/10.17718/tojde.1330442>
- Chauhan, R., Al-Tarawneh, A. M. A., Al-Dmour, N. A., Al-Momani, H. K., Al-Husban, N. A., Al-Hadid, L. A., & Al-Khasawneh, M. A. (2025). Social media addiction: A comprehensive state of mental health. *International Journal of Advanced and Applied Sciences*, 12(2), 1–10. <https://doi.org/10.21833/ijaas.2025.02.001>
- Csibi, S., Griffiths, M. D., Cook, B., Demetrovics, Z., & Szabo, A. (2018). The psychometric properties of the Smartphone Application-Based Addiction Scale (SABAS). *International Journal of Mental Health and Addiction*, 16(2), 393–403. <https://doi.org/10.1007/s11469-017-9787-2>
- Demeke, W. (2024). Beyond the screen: Exploring students' views on social media's impact in education. In Á. Rocha, H. Adeli, G. Dzemyda, F. Moreira, & A. M. Ramalho Correia (Eds.), *Lecture Notes in Networks and Systems* (Vol. 988, pp. 184–196). Springer. https://doi.org/10.1007/978-3-031-60224-5_20
- Feng, T., Wang, B., Mi, M., Ren, L., Wu, L., Wang, H., Liu, X., & Wang, X. (2025). The relationships between mental health and social media addiction, and between academic burnout and social media addiction among Chinese college students: A network analysis. *Heliyon*, 11(3), e41869. <https://doi.org/10.1016/j.heliyon.2025.e41869>
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)* (3rd ed.). Sage.
- Ho, W. W. Y., Lau, Y. H. Y., Leung, L. Y. L., Li, E. K. L., & Ma, R. K. K. (2024). Enigma of social media use: Complexities of social media addiction through the serial mediating effects of emotions and self-presentation. *Frontiers in Psychology*, 15, 1448168. <https://doi.org/10.3389/fpsyg.2024.1448168>
- Ismail, F. H., Qamar, M. S. G., Nasaruddin, N. A. M., Hamsam, N. F. M., & Govindan, S. N. (2025). Effect of social media addiction towards sleeping pattern and knowledge acquisition among nursing students. *The Malaysian Journal of Nursing*, 17(2), 124–133. <https://doi.org/10.31674/mjn.2025.v17i02.012>
- Kalam, A., Goi, C. L., & Tiong, Y. Y. (2023). Student motivations for social media use and their effects on academic performance: A mediational approach in emerging market. *Interactive Technology and Smart Education*, 20(4), 520–537. <https://doi.org/10.1108/ITSE-10-2022-0148>
- Kara, B. C. (2026). Social media addiction and mental well-being: Social connectedness and perceived social support as serial mediators. *International Journal for the Advancement of Counselling*, 48(1), Article 7. <https://doi.org/10.1007/s10447-025-09633-z>
- Landa-Blanco, M., García, Y. R., Landa-Blanco, A. L., Cortés-Ramos, A., & Paz-Maldonado, E. (2024). Social media addiction relationship with academic engagement in university students: The mediator role of self-esteem, depression, and anxiety. *Heliyon*, 10(2), e24384. <https://doi.org/10.1016/j.heliyon.2024.e24384>

- Li, L., Griffiths, M. D., Mei, S., & Niu, Z. (2020). Fear of missing out and smartphone addiction mediates the relationship between positive and negative affect and sleep quality among Chinese university students. *Frontiers in Psychiatry*, 11, 877. <https://doi.org/10.3389/fpsy.2020.00877>
- Liţan, D.-E. (2025). Emoji or real emotions? The effect of digitalization on the quality of life through social media addiction: A multigroup SEM analysis moderated by positive and negative affect. *BMC Psychology*, 13, 1197. <https://doi.org/10.1186/s40359-025-03508-z>
- Lin, S., Mastrokourou, S., & Longobardi, C. (2023). Social relationships and social media addiction among adolescents: Variable-centered and person-centered approaches. *Computers in Human Behavior*, 147, 107873. <https://doi.org/10.1016/j.chb.2023.107873>
- Liu, X., Gui, Z., Chen, Z. M., Feng, Y., Wu, X. D., Su, Z., Cheung, T., Ungvari, G. S., Liu, X. C., Yan, Y. R., Ng, C. H., & Xiang, Y. T. (2025). Global prevalence of internet addiction among university students: A systematic review and meta-analysis. *Current Opinion in Psychiatry*, 38(3), 182–199. <https://doi.org/10.1097/YCO.0000000000000994>
- Liu, Z., Hu, R., & Bi, X. (2023). The effects of social media addiction on reading practice: A survey of undergraduate students in China. *Journal of Documentation*, 79(6), 1453–1472. <https://doi.org/10.1108/JD-12-2022-0278>
- Luo, Y., Liang, L., Zhou, H., Qi, X., Xu, J., & Meng, H. (2025). The impact of social media addiction on depression among university students in Wuhan, China: A longitudinal study. *BMC Public Health*, 25, 2279. <https://doi.org/10.1186/s12889-025-23443-3>
- Malak, M. Z., Shuhaiber, A. H., Al-Amer, R. M., Abuadas, M. H., Aburoomi, R. J., & Alwraikat, A. M. (2022). Correlation between psychological factors, academic performance and social media addiction: Model-based testing. *Behaviour & Information Technology*, 41(15), 3288–3301. <https://doi.org/10.1080/0144929X.2021.1891460>
- Masood, A., Luqman, A., Feng, Y., & Ali, A. (2020). Adverse consequences of excessive social networking site use on academic performance: Explaining underlying mechanism from stress perspective. *Computers in Human Behavior*, 113, 106476. <https://doi.org/10.1016/j.chb.2020.106476>
- Mou, Q., Zhuang, J., Wu, Q., Zhong, Y., Dai, Q., Cao, X., Gao, Y., Lu, Q., Zhao, M., Geng, T., Tu, Z., Niu, L., Li, R., Qu, W., & Gao, Y. (2024). Social media addiction and academic engagement as serial mediators between social anxiety and academic performance among college students. *BMC Psychology*, 12, 190. <https://doi.org/10.1186/s40359-024-01635-7>
- Ngadan, D. P., Mazlan, N. S., Jamel, A. M., Ismail, S., Mahendran, D. K., & Kapitonova, M. (2026). Prevalence of social media addiction and its associated factors among undergraduate students at Universiti Malaysia Sarawak (UNIMAS), Sarawak. *Vestnik Avicenna (Avicenna Bulletin)*, 28(1), 67–75. <https://doi.org/10.25005/2074-0581-2026-28-1-67-75>
- Ning, W., & Inan, F. A. (2024). Impact of social media addiction on college students' academic performance: An interdisciplinary perspective. *Journal of Research on Technology in Education*, 56(5), 616–631. <https://doi.org/10.1080/15391523.2023.2196456>
- Nurmala, I., Nadhiroh, S. R., Pramukti, I., Tyas, L. W., Zari, A. P., Griffiths, M. D., & Lin, C.-Y. (2022). Reliability and validity study of the Indonesian Smartphone Application-Based Addiction Scale (SABAS) among college students. *Heliyon*, 8(8), e10403. <https://doi.org/10.1016/j.heliyon.2022.e10403>
- Pekpazar, A., Kaya Aydın, G., Aydın, U., Beyhan, H., Arı, E., & Cengiz, M. B. (2021). Role of Instagram addiction on academic performance among Turkish university students:

- Mediating effect of procrastination. *Computers and Education Open*, 2, 100049. <https://doi.org/10.1016/j.caeo.2021.100049>
- Qi, Y., Zhao, M., Geng, T., Tu, Z., Lu, Q., Li, R., Niu, L., Qu, W., Zhong, Y., & Gao, Y. (2024). The relationship between family functioning and social media addiction among university students: A moderated mediation model of depressive symptoms and peer support. *BMC Psychology*, 12, 341. <https://doi.org/10.1186/s40359-024-01818-2>
- Quaglieri, A., Biondi, S., Roma, P., Lausi, G., Ferlazzo, F., & Giannini, A. M. (2022). From emotional (dys)regulation to internet addiction: A mediation model of problematic social media use among Italian young adults. *Journal of Clinical Medicine*, 11(7), 1881. <https://doi.org/10.3390/jcm11071881>
- Salari, N., Zarei, H., Hosseini-Far, A., Rasoulpoor, S., Shohaimi, S., & Mohammadi, M. (2023). The global prevalence of social media addiction among university students: A systematic review and meta-analysis. *Journal of Public Health*, 33(1), 223–236. <https://doi.org/10.1007/s10389-023-02012-1>
- Sun, Y., & Zhang, Y. (2021). A review of theories and models applied in studies of social media addiction and implications for future research. *Addictive Behaviors*, 114, 106699. <https://doi.org/10.1016/j.addbeh.2020.106699>
- Ulwiyyah, U., & Zhang, J. (2022). The Role of Psychosocial Factors affecting Internet Addiction among Indonesian University Students. *The Journal of Behavioral Science*, 17(2), 16–28. retrieved from <https://so06.tci-thaijo.org/index.php/IJBS/article/view/256760>
- Uyaroğlu, A. K., Ergin, E., Tosun, A. S., & Erdem, Ö. (2022). A cross-sectional study of social media addiction and social and emotional loneliness in university students in Turkey. *Perspectives in Psychiatric Care*, 58(4), 2212–2220. <https://doi.org/10.1111/ppc.13030>
- Yeh, C.-R., Vo, H. T., Lin, C.-Y., Lai, C.-F., Tran Le, T. C., Yang, S.-H., Chao, J. C.-J., Tsai, P.-S., & Duong, T. V. (2025). Impact of social media addiction on anxiety symptoms as modified by social support and its subscales. *DIGITAL HEALTH*, 11, 20552076251393393. <https://doi.org/10.1177/20552076251393393> .
- Zhao, N., Zhou, G., Wei, M., & Vogel, D. L. (2024). Investigating the cognitive and affective dynamics of social media addiction: Insights from peer contexts. *Journal of Counseling Psychology*, 71(3), 312–325. <https://doi.org/10.1037/cou0000683> .
- Zhoc, K. C. H., Webster, B. J., King, R. B., Li, J. C. H., & Chung, T. S. H. (2019). Higher Education Student Engagement Scale (HESES): Development and psychometric evidence. *Research in Higher Education*, 60(2), 219–244. <https://doi.org/10.1007/s11162-018-9510-6>
- Zhuang, J., Mou, Q., Zheng, T., Gao, F., Zhong, Y., Lu, Q., Gao, Y., & Zhao, M. (2023). A serial mediation model of social media addiction and college students' academic engagement: The role of sleep quality and fatigue. *BMC Psychiatry*, 23, 333. <https://doi.org/10.1186/s12888-023-04799-5>