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The Mediating Effect of Self-Control in the Relationship between Loneliness and Social Media Addiction among Young Adults

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Abstract

High levels of social media use among young adults increase the risk of social media addiction. This study aims to examine the effect of loneliness on social media addiction through self-control among young adults. The hypotheses propose that loneliness has an indirect effect on social media addiction through self-control, as well as a direct effect on social media addiction. This study used a quantitative approach, with path analysis conducted in JASP. The sample included 389 young adults aged 18–25 who actively used social media. The results revealed a significant indirect effect of loneliness on social media addiction through self-control. These findings indicate that higher levels of loneliness are associated with lower levels of self-control, which in turn are associated with higher levels of social media addiction. In addition, loneliness had a significant direct effect on social media addiction, indicating that individuals who experience higher levels of loneliness tend to exhibit higher levels of social media addiction. Therefore, self-control serves as a partial mediator in the relationship between loneliness and social media addiction among young adults. This study highlights the important role of self-control in explaining how loneliness may contribute to social media addiction among young adults.

Keywords

Loneliness, Self-Control, Social Media Addiction, Young Adults.

1. Introduction

The development of digital technology over the past two decades has significantly transformed how people interact and communicate. Social media is no longer merely entertainment; it has become a primary space for building social relationships, expressing identity, and fulfilling various psychological needs. Globally, approximately 5.24 billion people are active social media users. Among young adults aged 18–25, approximately 90% use social media, making them the most active user group compared with other age categories (Pew Research Center, 2025). This high intensity of use is reflected in accessing social media several times a day and engaging with multiple platforms, including YouTube, Instagram, Facebook, and TikTok.

High social media engagement among young adults is closely associated with the characteristics of emerging adulthood. During this age range, individuals explore identity, experience changes in social roles, and face various developmental demands (Arnett et al., 2014). The primary developmental task at this stage is intimacy versus isolation; difficulty establishing meaningful relationships may increase the risk of social isolation and loneliness (Santrock, 2012). In this context, people often use social media as an alternative way to meet the need for social connectedness and emotional support. However, the dominance of online interactions over face-to-face relationships may weaken the quality of real-world interpersonal relationships (Wardani & Eva, 2025).

Although social media provides positive benefits, such as expanding social networks and offering emotional support, excessive use can also lead to negative consequences, one of which is social media addiction. Social media addiction is a form of non-substance behavioral addiction characterized by an excessive urge to use social media that interferes with an individual's social, academic, and emotional functioning (Andreassen & Pallesen, 2014). This behavior encompasses six components: salience, mood modification, tolerance, withdrawal, conflict, and relapse (Griffiths, 2005). Previous studies have indicated that young adults are particularly vulnerable to social media addiction, with relatively high prevalence rates reported in this group (Majorsy et al., 2013; Krisnadi & Adhandayani, 2022). In Indonesia, this risk is further reinforced by high internet use intensity, as most users spend about 4–10 hours per day online (APJII, 2025).

The Interaction of Person-Affect-Cognition-Execution (I-PACE) model explains the development of social media addiction through interactions between individual characteristics, affective and cognitive responses, and executive functions (Brand et al., 2016). Loneliness, defined as a subjective condition resulting from inadequate meaningful social and emotional relationships, may encourage individuals to use social media to compensate for unmet interpersonal needs (Weiss, 1975; Kardefelt-Winther, 2014). Previous studies by Permata and Sumaryanti (2023), Luth and Maryam (2024), and Alateeq et al. (2025) have identified loneliness as a significant predictor of social media addiction among young adults. Beyond its direct effect, loneliness may also influence social media addiction through self-control, defined as the ability to regulate emotions, resist impulses, and pursue long-term goals (De Ridder et al., 2011). Within the I-PACE framework, self-control represents the execution component involved in behavioral regulation. Negative emotions associated with loneliness may weaken self-regulatory resources, making it more difficult to control social media use (Baumeister et al., 2007; Wang et al., 2025). Consistent with this explanation, lower self-control has been associated with higher social media addiction (Mile et al., 2023; Koc et al., 2023).

Although previous studies have linked loneliness to social media addiction and highlighted the role of self-control in digital addictive behaviors, most have focused on direct relationships rather than examining the underlying mediation mechanism

(Permata & Sumaryanti, 2023; Luth & Maryam, 2024; Alateeq et al., 2025). Koc et al. (2023) examined mediators such as fear of missing out. However, research examining self-control as the sole mediator between loneliness and social media addiction among Indonesian young adults remains limited, particularly within the I-PACE framework. Therefore, this study examines how loneliness affects social media addiction through self-control. The findings are expected to contribute to understanding the psychological mechanisms underlying social media addiction and provide insights for developing interventions that address loneliness and strengthen self-control among young adults.

2. Literature Review and Hypothesis Development

2.1. Mediating Effect of Self-Control

Loneliness is a subjective feeling of social disconnection that can generate negative emotions and increase vulnerability to maladaptive behaviors. From a self-regulation perspective, loneliness may weaken an individual's capacity to control impulses because managing negative emotional states requires greater regulatory effort (Baumeister et al., 2007; Wang et al., 2025). Individuals experiencing loneliness may therefore have greater difficulty maintaining behavioral control, particularly when seeking immediate emotional relief through digital interactions. Consistent with this explanation, Özdemir et al. (2014) associated loneliness with vulnerability to addictive behaviors. Stavrova et al. (2022) further linked lower social connectedness to reduced self-control, suggesting that social disconnection may compromise the regulatory capacity needed to manage behavioral impulses.

Self-control may consequently serve as a mediating mechanism linking loneliness to social media addiction. Social media can provide temporary emotional relief from loneliness, but excessive engagement may develop when individuals struggle to regulate their usage. Behavioral addiction is characterized by components such as salience, mood modification, tolerance, withdrawal, conflict, and relapse (Griffiths, 2005; Andreassen et al., 2017). Individuals with lower self-control may find it harder to resist the urge to stay online, regulate usage time, and stop social media use despite negative consequences (Gökçearslan et al., 2018; Abimanyu et al., 2023; Zhang et al., 2024). This vulnerability may be particularly relevant among young adults, whose developmental experiences can intensify their need for social connection (Majorsy et al., 2013; Krisnadi & Adhandayani, 2022). Therefore, self-control is expected to explain part of the relationship between loneliness and social media addiction, leading to the following hypothesis:

H1: Loneliness has an indirect effect on social media addiction through self-control.

2.2. The Effect of Loneliness on Social Media Addiction and Self-Control

Loneliness is a subjective psychological state that arises from inadequate meaningful social and emotional relationships (Weiss, 1975). Among young adults, it may develop during life transitions, academic or occupational pressures, and discrepancies between desired and actual social relationships (Buecker et al., 2021). Loneliness may influence social media addiction by motivating individuals to compensate for unmet social and emotional needs through digital platforms that offer accessible opportunities for social interaction, validation, and emotional support (Kardefelt-Winther, 2014). When social media becomes a primary source of emotional relief, repeated use may develop into excessive and potentially addictive behavior. Furthermore, loneliness may undermine self-control by generating negative emotional states that interfere with behavioral regulation (Baumeister et al., 2007; Wang et al., 2025). Reduced social connectedness may also weaken

individuals' capacity to regulate their behavior, making it more difficult to maintain self-control (Özdemir et al., 2014; Stavrova et al., 2022).

Previous empirical studies support these relationships. Research by Krisnadi and Adhandayani (2022), Permata and Sumaryanti (2023), Luth and Maryam (2024), and Alateeq et al. (2025) indicates that greater loneliness is associated with higher social media addiction among young adults. These findings suggest that individuals experiencing social disconnection may increasingly rely on social media to fulfill unmet interpersonal needs. Regarding self-control, Özdemir et al. (2014) reported associations between loneliness and diminished self-regulatory capacity, while Stavrova et al. (2022) highlighted the relationship between lower social connectedness and reduced self-control. These findings provide a theoretical and empirical basis for examining loneliness as a predictor of both social media addiction and self-control.

H2: Loneliness has a significant effect on social media addiction.

H3: Loneliness has a significant effect on self-control.

2.3. The Effect of Self-Control on Social Media Addiction

Self-control refers to an individual's ability to regulate emotions, inhibit impulsive urges, and maintain behaviors aligned with long-term goals (De Ridder et al., 2011; Brevers & Turel, 2019). It comprises two dimensions: inhibition, resisting immediate impulses, and initiation, initiating and sustaining goal-directed behaviors. In social media use, self-control helps individuals regulate usage intensity, resist continuous scrolling, and stop online activities when they interfere with daily responsibilities. The Interaction of Person-Affect-Cognition-Execution (I-PACE) model highlights the importance of executive functions in regulating problematic Internet use, suggesting that impaired control can contribute to addictive behaviors (Brand et al., 2016). Accordingly, individuals with lower self-control may have greater difficulty managing online impulses, increasing their vulnerability to excessive, uncontrolled social media use.

Empirical evidence supports the relationship between self-control and social media addiction. Gökçearsan et al. (2018) and Abimanyu et al. (2023) highlighted the relevance of self-control in understanding problematic digital behavior, particularly difficulties in regulating online activities. Similarly, Mile et al. (2023), Koc et al. (2023), and Zhang et al. (2024) found that lower self-control is associated with a greater tendency toward social media addiction. Robbiha and Mutiah (2026) also examined this relationship, further supporting the importance of self-regulatory capacity in explaining problematic social media use. These findings suggest that individuals with stronger self-control are better equipped to resist immediate gratification and maintain balanced social media habits, whereas those with weaker self-control may be more susceptible to compulsive use. Based on this theoretical explanation and previous empirical evidence, the following hypothesis is proposed:

H4: Self-control has a significant effect on social media addiction.

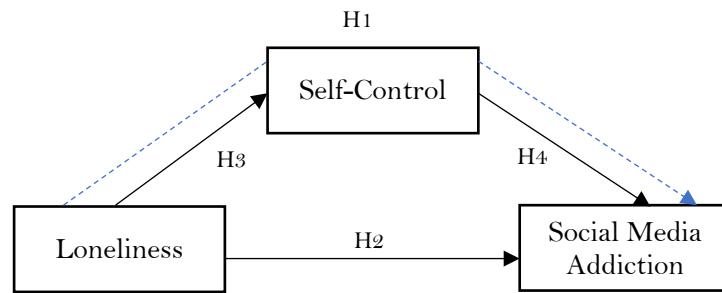


Figure 1. Research Framework

Figure 1 shows the research framework. This study's conceptual framework is grounded in the I-PACE model proposed by Brand et al. (2016), which explains the development of problematic Internet use through interactions among individual characteristics, affective and cognitive processes, and executive functions. Within this framework, loneliness is an individual characteristic that triggers negative emotions and a desire for social connectedness, potentially encouraging individuals to use social media for emotional relief, social validation, and a sense of belonging. However, relying on social media for immediate gratification may increase demands on self-control, a limited psychological resource (Baumeister et al., 2007). Consequently, individuals may become less able to inhibit their urges to use social media (Wang et al., 2025). When self-control is insufficient, individuals may struggle to regulate their social media use despite recognizing its negative consequences. The temporary emotional relief obtained from social media can reinforce repeated use, potentially developing into addictive behavior over time. This study conceptualizes loneliness as a predictor of social media addiction and self-control as a mediating variable that helps explain the relationship between loneliness and social media addiction.

3. Methods

This study employed a quantitative approach with a correlational design and path analysis to examine the effect of loneliness on social media addiction, mediated by self-control among young adults. This approach was selected because it enables the simultaneous examination of direct and indirect relationships among variables within a single model. The population consisted of young adults aged 18–25 who actively used social media platforms (TikTok, Instagram, YouTube, and Facebook) for at least five hours per day. These criteria were established because this age group represents one of the most active social media user groups and is considered more vulnerable to social media addiction. Because the exact population size was unknown, this study used non-probability sampling with an accidental sampling method. Individuals who accessed the online questionnaire link and met the inclusion criteria were eligible to participate. The minimum sample size was determined using Cochran's formula at a 95% confidence level and a 5% margin of error, yielding a minimum required sample of approximately 385 respondents. This study successfully collected data from 389 participants who met all the established criteria.

The independent variable was loneliness, the dependent variable was social media addiction, and the mediating variable was self-control. Social media addiction was measured using a scale adapted from the Indonesian version of the Bergen Social Media Addiction Scale (BSMAS), based on six components of behavioral addiction: salience, mood modification, tolerance, withdrawal, conflict, and relapse (Griffiths, 2005). Following professional judgment and pilot testing, the final scale consisted of 23 items, with a Cronbach's alpha value of 0.896. Loneliness was measured using the Indonesian version of the De Jong Gierveld Loneliness Scale (DJGLS), which assesses social and emotional loneliness. Following pilot testing, the final scale

consisted of 10 items, with a Cronbach's alpha value of 0.842. Self-control was measured using the Indonesian version of the Brief Self-Control Scale (BSCS), which encompasses the dimensions of inhibition and initiation (Arifin & Milla, 2020). All items were valid, and the scale yielded a Cronbach's alpha value of 0.788. All scales employed a four-point Likert response format.

Data were collected online through a Google Forms questionnaire distributed via various social media platforms and messaging applications. Before completing the questionnaire, participants provided informed consent and confirmed they met the age and social media usage intensity criteria. The collected data were subsequently analyzed using path analysis with the assistance of JASP software. Before hypothesis testing, classical assumption tests were conducted, including residual normality, multicollinearity, and heteroscedasticity tests. The mediation analysis examined the direct, indirect, and total effects to determine the role of self-control as a mediator in the relationship between loneliness and social media addiction.

4. Results

This section presents the characteristics of the 389 respondents who participated in the study. All participants were young adults aged 18–25 who actively used social media for at least five hours per day. The study examined respondent characteristics by gender, occupation, and most frequently used social media platform. These demographic and usage profiles provide an overview of the sample and contextualize the subsequent statistical analysis. Table 1 summarizes the distribution of respondents across these categories, providing a descriptive foundation for understanding the participants in the investigation.

Table 1. Respondent Characteristics.

Category	Characteristics	Frequency	Percentage (%)
Gender	Female	262	67.4
	Male	127	32.6
Occupation	University Student	214	55
	Employed Individuals	153	39.3
	Students and Employed	20	5.1
	Unemployed Individuals	2	0.5
Most Frequently Used Social Media Platform	TikTok	198	50.9
	Instagram	146	37.5
	YouTube	27	6.9
	Facebook	18	4.6

The study included 389 young adults aged 18–25 who were active social media users, using social media for at least five hours per day. Table 1 shows that the sample included 262 females (67.4%) and 127 males (32.6%). Most participants were university students (55.0%), followed by employed individuals (39.3%), employed students (5.1%), and unemployed individuals (0.5%). The most frequently used social media platform was TikTok (50.9%), followed by Instagram (37.5%), YouTube (6.9%), and Facebook (4.6%).

Table 2. Descriptive Statistics of the Research Variables

Variable	N	Mean	SD	Range
Social Media Addiction	389	56.35	16.33	23–92
Loneliness	389	24.50	6.22	10–40
Self-Control	389	24.50	6.14	10–40

Table 2 presents descriptive statistics summarizing the distribution of the three research variables among 389 respondents. Social media addiction had a mean score of 56.35 and a standard deviation of 16.33, with observed scores ranging from 23 to

92, indicating considerable variation among respondents. Loneliness recorded a mean score of 24.50 (SD = 6.22), with scores ranging from 10 to 40. Similarly, self-control had a mean score of 24.50 (SD = 6.14), with the same observed range. Although loneliness and self-control shared identical mean scores and ranges, their standard deviations differed slightly, reflecting differences in the variability of respondents' scores across these two variables.

Table 3. Categorization of Research Variables

Variable	Low	Middle	High
Social Media Addiction	109 (28.0%)	184 (47.3%)	96 (24.7%)
Loneliness	89 (22.9%)	212 (54.5%)	88 (22.6%)
Self-Control	83 (21.3%)	219 (56.3%)	87 (22.4%)

The score categorization showed that most participants fell into the moderate category across all three variables. Table 3 shows that for social media addiction, 47.3% were in the moderate category, 28.0% in the low category, and 24.7% in the high category. For loneliness, 54.5% were in the moderate category, 22.9% in the low category, and 22.6% in the high category. For self-control, 56.3% were in the moderate category, 22.4% in the high category, and 21.3% in the low category.

Table 4. Validity and Reliability Test

Variable	Item	Item-rest correlation	Cronbach Alpha
Social Media Addiction	Social Media1	0.439	0.896
	Social Media2	0.443	
	Social Media3	0.562	
	Social Media4	0.546	
	Social Media5	0.557	
	Social Media6	0.461	
	Social Media7	0.650	
	Social Media8	0.598	
	Social Media9	0.412	
	Social Media10	0.502	
	Social Media11	0.643	
	Social Media12	0.440	
	Social Media13	0.516	
	Social Media14	0.523	
	Social Media15	0.666	
	Social Media16	0.561	
	Social Media18	0.509	
	Social Media19	0.405	
	Social Media20	0.459	
	Social Media21	0.405	
	Social Media22	0.483	
	Social Media23	0.446	
	Social Media24	0.425	
Loneliness	Loneliness_1	0.613	0.842
	Loneliness_2	0.420	
	Loneliness_3	0.353	
	Loneliness_4	0.748	
	Loneliness_5	0.409	
	Loneliness_6	0.490	
	Loneliness_7	0.614	
	Loneliness_8	0.603	
	Loneliness_9	0.371	
Self-Control	Self-Control_1	0.357	0.788
	Self-Control_2	0.510	
	Self-Control_3	0.390	

Variable	Item	Item-rest correlation	Cronbach Alpha
	Self-Control_4	0.438	
	Self-Control_5	0.478	
	Self-Control_6	0.433	
	Self-Control_7	0.438	
	Self-Control_8	0.586	
	Self-Control_9	0.467	
	Self-Control_10	0.527	

Table 4 presents the validity and reliability test results for the three research variables: social media addiction, loneliness, and self-control. The item-rest correlation coefficients for social media addiction range from 0.405 to 0.666, for loneliness from 0.353 to 0.748, and for self-control from 0.357 to 0.586. All item-rest correlation values exceed the minimum threshold of 0.30, indicating that all retained items demonstrate acceptable item-level validity. Furthermore, the Cronbach's Alpha coefficients are 0.896 for social media addiction, 0.842 for loneliness, and 0.788 for self-control. Since all coefficients exceed the commonly accepted threshold of 0.70, the three instruments demonstrate satisfactory internal consistency and reliability. Therefore, the measurement instruments are considered valid and reliable for further statistical analysis.

Table 5. Classical Assumption Test

Variable	Multicollinearity Test		Normality Test	
	Tolerance	VIF	Model I	Model II
Loneliness	0.646	1.548	Residual	Residual
Self-Control	0.646	1.548	Normality Sig = 0.482	Normality Sig = 0.881

Before hypothesis testing, classical assumption tests were conducted. Based on Table 5, the Kolmogorov–Smirnov residual normality test yielded a p-value of 0.482 for the loneliness–self-control (Model I) and 0.881 for the loneliness–self-control–social media (Model II) addiction model. Both p-values were greater than 0.05, indicating normally distributed residuals. The multicollinearity test showed tolerance values of 0.646 and VIF values of 1.548 for both predictors, meeting the criteria for the absence of multicollinearity (tolerance > 0.10 and VIF < 10). The residual-versus-predicted scatterplot showed no systematic pattern, indicating that the homoscedasticity assumption was satisfied. The partial regression plots also indicated linear relationships between each predictor and the dependent variable.

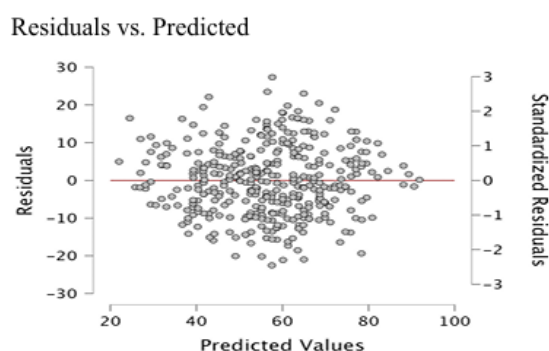


Figure 2. Heteroscedasticity Test

Figure 2 presents the residuals versus predicted values plot, which shows that the residuals are randomly distributed above and below the zero line without a clear systematic pattern. This distribution indicates no apparent evidence of

heteroscedasticity, suggesting that the homoscedasticity assumption is reasonably satisfied based on visual inspection.

Table 6. Path Coefficient

Path	β	SE	z	p
Loneliness $\rightarrow$ Social Media Addiction	0.460	0.036	12.88	< 0.001
Loneliness $\rightarrow$ Self-Control	-0.595	0.033	-17.77	< 0.001
Self-Control $\rightarrow$ Social Media Addiction	-0.466	0.035	-13.29	< 0.001

Table 6 shows that loneliness had a positive, significant effect on social media addiction ($\beta = 0.460$; $p < 0.001$). This indicates that higher levels of loneliness are associated with higher levels of social media addiction. Loneliness also had a negative and significant effect on self-control ($\beta = -0.595$; $p < 0.001$), indicating that higher levels of loneliness are associated with lower levels of self-control. Furthermore, self-control had a negative and significant effect on social media addiction ($\beta = -0.466$; $p < 0.001$), suggesting that higher levels of self-control are associated with lower levels of social media addiction.

Table 7. Mediation Analysis Results

Effect	β	SE	z	p
Direct effect (Loneliness $\rightarrow$ Social Media Addiction)	0.460	0.036	12.88	< 0.001
Indirect effect (through Self-Control)	0.277	0.025	11.15	< 0.001
Total effect	0.737	0.024	30.52	< 0.001

The mediation analysis results presented in Table 7 indicate that loneliness significantly affects social media addiction both directly and indirectly through self-control. The direct effect was positive and significant ($\beta = 0.460$, $SE = 0.036$, $z = 12.88$, $p < 0.001$), while the indirect effect through self-control was also positive and significant ($\beta = 0.277$, $SE = 0.025$, $z = 11.15$, $p < 0.001$). The total effect was 0.737 ($SE = 0.024$, $z = 30.52$, $p < 0.001$). These findings support the role of self-control as a partial mediator, indicating that loneliness influences social media addiction through both direct and indirect pathways.

Table 8. Coefficient Determination

Variable	R-Square
Social Media Addiction	0.683
Loneliness	0.352

The coefficient of determination (R^2) assesses the model's explanatory power. As presented in Table 8, loneliness and self-control jointly explained 68.3% of the variance in social media addiction ($R^2 = 0.683$), indicating substantial explanatory power. The remaining 31.7% was attributable to factors outside the model. Meanwhile, loneliness explained 35.2% of the variance in self-control ($R^2 = 0.352$), while other factors not included in the model explained the remaining 64.8%. These findings demonstrate the model's varying explanatory capacity across the two endogenous variables.

5. Discussion

The results revealed a significant indirect effect of loneliness on social media addiction through self-control alongside a significant direct effect, supporting the partial mediating role of self-control. This finding aligns with Özdemir et al. (2014), who associated loneliness with greater vulnerability to addictive behaviors through diminished behavioral regulation. Loneliness may generate negative emotions and

increase the need for immediate relief, placing additional demands on self-regulatory capacity (Baumeister et al., 2007; Wang et al., 2025). Similarly, Stavrova et al. (2022) linked lower social connectedness to reduced self-control, suggesting that loneliness may indirectly increase social media addiction by weakening behavioral regulation.

Furthermore, Gökçearslan et al. (2018), Abimanyu et al. (2023), and Zhang et al. (2024) support the negative relationship between self-control and social media addiction, highlighting the importance of self-regulation in preventing problematic digital behavior. Individuals with lower self-control may struggle to resist impulses and regulate their social media use, increasing their vulnerability to addictive patterns. Meanwhile, the significant direct effect of loneliness on social media addiction is consistent with Harlendea and Kartasasmita (2021), Krisnadi and Adhandayani (2022), Permata and Sumaryanti (2023), Luth and Maryam (2024), and Alateeq et al. (2025). Loneliness may motivate individuals to use social media to compensate for unmet social and emotional needs, meaning its influence extends beyond reduced self-control (Kardefelt-Winther, 2014). Loneliness may contribute to social media addiction through both direct and self-control-related pathways.

Loneliness had a significant negative effect on self-control. This finding suggests that individuals experiencing greater loneliness tend to have greater difficulty regulating their behavior. This aligns with Stavrova et al. (2022), who highlighted the relationship between lower social connectedness and reduced self-regulatory capacity. These findings suggest that loneliness may impose additional demands on emotional and behavioral regulation, particularly when individuals attempt to manage feelings of social disconnection. Consequently, loneliness may not only increase motivation to seek online social interaction but also weaken the capacity to regulate that behavior. This relationship provides an important explanation for the mediating role of self-control in the association between loneliness and social media addiction.

The result shows that there is a significant negative effect of self-control on social media addiction. This result indicates that individuals with stronger self-control are less vulnerable to excessive, hard-to-regulate social media use. This finding aligns with Gökçearslan et al. (2018) and Abimanyu et al. (2023), who emphasized the role of self-control in regulating problematic digital behavior, and with Zhang et al. (2024), who linked lower self-control to a greater tendency toward social media addiction. Similarly, Mile et al. (2023), Koc et al. (2023), and Robbiha and Mutiah (2026) provide further empirical support for examining self-control in relation to social media addiction. Self-control enables individuals to inhibit immediate impulses, regulate usage duration, and discontinue online activities despite short-term gratification. When this capacity is limited, resisting continuous scrolling and prioritizing long-term responsibilities becomes more difficult (De Ridder et al., 2011).

The findings are consistent with the I-PACE model proposed by Brand et al. (2016), which explains specific Internet-use disorders through interactions among individual characteristics, affective-cognitive processes, and behavioral control mechanisms. In this study, loneliness may generate negative emotions and unmet social needs, encouraging individuals to seek immediate comfort through social media. This focus on short-term relief may weaken self-control, making it increasingly difficult to regulate and discontinue social media use. These mechanisms are particularly relevant to young adults, for whom establishing meaningful relationships is an important developmental task (Erikson, as cited in Santrock, 2012). Therefore, interventions addressing loneliness and strengthening self-control may help prevent social media addiction among young adults.

6. Conclusion

Based on the research findings, loneliness influences social media addiction both directly and indirectly through self-control. Young adults experiencing greater loneliness may struggle to regulate their emotions and behavior, especially when seeking immediate relief through social media. Social disconnection and negative emotions may weaken self-control, making it harder to regulate how long, how often, and how intensely they use social media. Consequently, individuals with lower self-control may be more vulnerable to excessive social media use as a means of coping with loneliness and fulfilling unmet emotional needs. Furthermore, loneliness may directly increase the tendency toward social media addiction by motivating individuals to seek social connection, attention, and emotional comfort through digital platforms. When these platforms become a primary way to compensate for unmet interpersonal needs, social media use may become excessive and hard to control. These findings indicate that self-control partially mediates the relationship between loneliness and social media addiction, suggesting that loneliness contributes to addictive behavior through both emotional and behavioral regulation pathways.

These findings highlight the importance of addressing individuals' experiences of loneliness and their ability to exercise self-control over social media use to prevent the development of addictive behavior. In practice, young adults can manage loneliness adaptively by building meaningful social relationships and strengthening self-control, for example, by limiting usage duration, disabling unnecessary notifications, and scheduling social media use. For psychology practitioners, loneliness and self-control may serve as important areas of assessment and intervention in addressing social media addiction. This study has several limitations, including its narrow scope, which covers only loneliness and self-control, and its reliance on self-report data. Future research is recommended to examine other variables, such as self-esteem, depressive symptoms, and social anxiety, and to combine quantitative and qualitative methods to obtain a more comprehensive understanding of social media addiction.

References

- Abimanyu, K. A., Sandri, R., & Kartika, F. C. (2023). *Kecenderungan kecanduan media Sosial pada dewasa awal: ditinjau dari kontrol diri*. Malang: Universitas Merdeka Malang (Undergraduate Thesis).
- Alateeq, D., Doumi, R., Alharthi, A., Alsayari, N., Alotaibi, R., Alharthi, R., Althomali, W., Alsaif, B., Alshammari, A., Aladwani, S., Aldossary, N., Alhindawi, Z., & Fayed, A. (2025). Social media addiction: Prevalence, determinants, and correlation with self-esteem and loneliness among young adults in Saudi Arabia. *Journal of Nature and Science of Medicine*, 8(3), 233–241. https://doi.org/10.4103/jnsn.jnsn_207_24.
- Andreassen, C. S., Pallesen, S., & Griffiths, M. D. (2017). The relationship between addictive use of social media, narcissism, and self-esteem: Findings from a large national survey. *Addictive Behaviors*, 64(1), 287–293. <https://doi.org/10.1016/j.addbeh.2016.03.006>
- Andreassen, S. C., & Pallesen, S. (2014). Social network site addiction-an overview. *Current Pharmaceutical Design*, 20(25), 4053–4061. <https://doi.org/10.2174/13816128113199990616>.
- APJII. (2025). *Survei penetrasi internet dan perilaku pengguna internet 2025*. Retrieved on June 19, 2026, from <https://survei.apjii.or.id>
- Arifin, H. H., & Milla, M. N. (2020). Adaptasi dan properti psikometrik skala kontrol diri ringkas versi Indonesia. *Jurnal Psikologi Sosial*, 18(2), 179–195. <https://doi.org/10.7454/jps.2020.18>
- Arnett, J. J., Žukauskienė, R., & Sugimura, K. (2014). The new life stage of emerging adulthood at ages 18–29 years: Implications for mental health. *The Lancet Psychiatry*, 1(7), 569–576. [https://doi.org/10.1016/S2215-0366\(14\)00080-7](https://doi.org/10.1016/S2215-0366(14)00080-7)
- Baumeister, R. F., Vohs, K. D., & Tice, D. M. (2007). The strength model of self-control.

- Current Directions in Psychological Science*, 16(6), 351–355. <https://doi.org/10.1111/j.1467-8721.2007.00534.x>
- Brand, M., Young, K. S., Laier, C., Wölfling, K., & Potenza, M. N. (2016). Integrating psychological and neurobiological considerations regarding the development and maintenance of specific Internet-use disorders: An Interaction of Person-Affect-Cognition-Execution (I-PACE) model. *Neuroscience & Biobehavioral Reviews*, 71(1), 252–266. <https://doi.org/10.1016/j.neubiorev.2016.08.033>
- Brevers, D., & Turel, O. (2019). Strategies for self-controlling social media use: Classification and role in preventing social media addiction symptoms. *Journal of Behavioral Addictions*, 8(3), 554–563. <https://doi.org/10.1556/2006.8.2019.49>
- Buecker, S., Mund, M., Chwastek, S., Sostmann, M., & Luhmann, M. (2021). Is loneliness in emerging adults increasing over time? A preregistered cross-temporal meta-analysis and systematic review. *Psychological Bulletin*, 147(8), 787–805. <https://doi.org/10.1037/bul0000332>
- De Ridder, D. T. D., De Boer, B. J., Lugtig, P., Bakker, A. B., & van Hooft, E. A. J. (2011). Not doing bad things is not equivalent to doing the right thing: Distinguishing between inhibitory and initiatory self-control. *Personality and Individual Differences*, 50(7), 1006–1011. <https://doi.org/10.1016/j.paid.2011.01.015>
- Gökçeşlan, Ş., Uluyol, Ç., & Şahin, S. (2018). Smartphone addiction, cyberloafing, stress and social support among university students: A path analysis. *Children and Youth Services Review*, 91(1), 47–54. <https://doi.org/10.1016/j.childyouth.2018.05.036>
- Griffiths, M. (2005). A ‘components’ model of addiction within a biopsychosocial framework. *Journal of Substance Use*, 10(4), 191–197. <https://doi.org/10.1080/14659890500114359>
- Harlendea, C. Z., & Kartasasmita, S. (2021). The relationship between loneliness and problematic internet use among young adults who are social media users. *Advances in Social Science, Education and Humanities Research*, 4(1), 1–18. <https://doi.org/10.2991/assehr.k.210805.059>
- Kardefelt-Winther, D. (2014). A conceptual and methodological critique of internet addiction research: Towards a model of compensatory internet use. *Computers in Human Behavior*, 31(1), 351–354. <https://doi.org/10.1016/j.chb.2013.10.059>
- Koc, H., Şimşir Gökalg, Z., & Seki, T. (2023). The relationships between self-control and distress among emerging adults: A serial mediating roles of fear of missing out and social media addiction. *Emerging Adulthood*, 11(3), 626–638. <https://doi.org/10.1177/21676968231151776>
- Krisnadi, B., & Adhandayani, A. (2022). Kecanduan media Sosial pada dewasa awal: Apakah dampak dari loneliness?. *JCA of Psychology*, 3(01), 1–14.
- Luth, F. I. P., & Maryam, E. W. (2024). Fear of missing out (FOMO), loneliness, and social media addiction in early adults. *Philanthropy: Journal of Psychology*, 8(2), 134–149. <https://doi.org/10.26623/philanthropy.v8i2.9208>
- Majorsy, U., Kinasih, A. D., Andriani, I., & Lisa, W. (2013). Hubungan antara keterampilan sosial dan kecanduan situs jejaring sosial pada masa dewasa awal. In *Prosiding PESAT (Psikologi, Ekonomi, Sastra, Arsitektur & Teknik Sipil)* (Vol. 5, pp. 78–84). Jakarta: Universitas Gunadarma.
- Mile, A. C., Firmawati, F., & Febriyona, R. (2023). Hubungan kontrol diri dengan kecanduan media Sosial (tiktok) pada remaja di SMPN 4 Tilamuta. *Jurnal Rumpun Ilmu Kesehatan*, 3(1), 198–207. <https://doi.org/10.55606/jrik.v3i1.1294>
- Özdemir, Y., Kuzucu, Y., & Ak, Ş. (2014). Depression, loneliness and Internet addiction: How important is low self-control? *Computers in Human Behavior*, 34(2), 284–290. <https://doi.org/10.1016/j.chb.2014.02.009>
- Permata, N., & Sumaryanti, I. U. (2023). Hubungan loneliness dengan adiksi media Sosial pada emerging adulthood pengguna TikTok kota Bandung. In *Bandung Conference Series: Psychology Science* (Vol. 3, No. 1, pp. 299–306). Bandung: Universitas Islam Bandung.
- Pew Research Center. (2025). *Social media use in 2025*. Retrieved on August 30, 2026, from <https://www.pewresearch.org>
- Robbiha, N. M., & Mutiah, D. (2026). The effect of phubbing and social support on students’ academic procrastination with self-control as a moderator. *Research Horizon*, 6(4), 1755–1768. <https://doi.org/10.54518/rh.6.4.2026.1499>
- Santrock, J. W. (2012). *Life-span development* (14th ed.). Boca Raton: McGraw-Hill.
- Stavrova, O., Ren, D., & Pronk, T. (2022). Low self-control: A hidden cause of loneliness?. *Personality and Social Psychology Bulletin*, 48(3), 347–362.

<https://doi.org/10.1177/01461672211007228>.

- Wang, T., Peng, C., Liu, X., & Lv, J. Y. (2025). Social exclusion and aggression: The mediating role of self-control and moderating role of self-compassion. *Journal of Interpersonal Violence*, 2(3), 1-20. <https://doi.org/10.1177/08862605251376343>.
- Wardani, A. A., & Eva, N. (2025, February). Problem-focused coping and psychological well-being of social media users in emerging adulthood. In *International Joint Conference on Arts and Humanities 2024 (IJCAH 2024)* (pp. 2544-2554). New York: Atlantis Press.
- Weiss, R. S. (1975). *Loneliness: The experience of emotional and social isolation*. Cambridge: MIT Press.
- Zhang, Y., Bu, R., & Li, X. (2024). Social exclusion and short video addiction: the mediating role of boredom and self-control. *Psychology Research and Behavior Management*, 17(12), 2195-2203. <https://doi.org/10.2147/PRBM.S463240>.

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Data Disclosure Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.



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