

THE RELATIONSHIP BETWEEN SOCIAL MEDIA USAGE INTENSITY AND EMOTIONAL REGULATION IN ADOLESCENTS

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Abstract

Adolescence is often referred to as a transitional period from childhood to adulthood. In the digital era, social media usage has become a widespread phenomenon among adolescents, significantly influencing their emotional development. This study aims to determine whether there is a relationship between social media usage and emotional regulation in adolescents. This study used a quantitative correlational design with a cross-sectional approach. A total of 147 students were selected using total sampling. Data were collected using the Social Media Intensity Scale (SIPMS) and the Emotion Regulation Questionnaire (ERQ). Data were analyzed using Chi-Square statistical test. A significant relationship was found between social media usage intensity and adolescents' emotional regulation ($\chi^2 = 28.694$, $df = 2$, $p < 0.001$), indicating that heavier users tended to exhibit lower emotional regulation. There is a correlation between social media usage intensity and emotional regulation in adolescents. This suggests that excessive social media usage may negatively impact adolescents' emotional stability, emphasizing the need for proper management and regulation of social media use.

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INTRODUCTION

Adolescence is a transitional stage from childhood to adulthood characterized by rapid physical, psychological, cognitive, and social development (1). During this period, hormonal changes can influence emotions, making adolescents more prone to irritability, anger, sadness, and mood fluctuations (2). Adolescent mental health faces a global crisis, where the WHO notes that 1 in 7 adolescents experience a mental disorder with minimal treatment access (3). In Indonesia, I-NAMHS 2022 data indicates a high prevalence of Mental Health Problems (34.9%) and Mental Disorders (5.5%) among adolescents (aged 10-17) (4). Furthermore, SKI 2023 confirms that the young adult group (15-24 years) has the highest depression

prevalence (2.0%), although they are the least likely to seek professional help. Regionally, in Central Java, the high prevalence of emotional and mental problems in the general population (around 25%) and depression among those aged ≥ 15 years (1.0%) underscore the urgent need for targeted adolescent mental health interventions in this area (5). This highlights the critical importance of understanding mental health challenges during adolescence, particularly as they navigate an increasingly digital world (6).

In recent years, the widespread use of social media among adolescents has raised growing concern. Excessive engagement with social media platforms has been associated with various psychological risks, including stress, depression, anxiety, emotional

instability, sleep disturbances, and even suicidal ideation (7). The intensity of social media use—manifested through addiction, prolonged exposure, and emotional dependence—has been shown to correlate with mental health issues (8).

Emotion regulation plays a vital role in helping adolescents manage their emotional responses in healthy ways. Inadequate emotion regulation has been linked to the development of psychiatric disorders such as depression and post-traumatic stress disorder (9). Although prior studies have explored the association between social media use and psychological outcomes like anxiety, depression, or fear of missing out (10,11), limited research has directly examined its effect on emotional regulation abilities during early and middle adolescence—a crucial developmental stage for shaping emotional stability.

A preliminary study conducted at a junior high school in Surakarta found that students who spent three to five hours daily on social media frequently experienced sudden mood changes afterward. This observation highlights the potential influence of social media intensity on adolescents’ ability to regulate emotions. Therefore, this study aims to investigate the relationship between social media usage intensity and emotional regulation among adolescents, addressing existing research gaps and providing empirical evidence to guide preventive and educational strategies in adolescent mental health.

METHODS

This study uses a quantitative correlational approach with a cross-sectional design. This study was conducted from December 20 to 31, 2024. Data collection in this study was done using a questionnaire. The study used a total sampling technique, meaning the sample size is equal to the population. The sample consisted of 147 students of a private junior high school in Surakarta.

The study used a questionnaire (survey) as the data collection method, conducted through Google Forms.

The Social Media Intensity Scale (SIPMS) by Ardari measures social media usage across four dimensions—attention, engagement, duration, and frequency—with higher scores indicating greater intensity. Previous testing with 164 respondents confirmed 23 of 25 items as valid ($r = 0.500-0.654$) and showed acceptable reliability (Cronbach’s $\alpha = 0.625$)(12). The Emotion Regulation Questionnaire (ERQ), adapted from Gross’s model, assesses four components: regulation strategies, goal-directed behavior, impulse control, and emotional acceptance. Using a 4-point Likert scale, 38 of 40 items were valid, and the instrument demonstrated high reliability (Cronbach’s $\alpha = 0.865$) (13).

To analyze the data used in the study, Chi-Square statistical test was employed as the correlation test in this research. It has passed the ethical feasibility test with the ethical approval number 481/LPPM/ITS.PKU/XI/2024.

RESULTS AND DISCUSSION

The respondents in this study consisted of 147 students. The demographic characteristics examined included age, gender, grade level, and parents’ occupation, as presented in the tables below.

Table 1. Age profile of adolescents (N=147)

Characteristic	N	Mean	SD	Min-Max
Age	147	14.50	1.125	13-16

Based on Table 1, the average age of respondents was 14.50 years (SD = 1.13), ranging from 13 to 16 years. This indicates that all participants were within the adolescent stage, a critical period for emotional and social development. Adolescence spans ages 10 to 18, while this phase notes that age influences emotional maturity. Junior high school students are generally between 13 and 16 years old, a developmental stage characterized by rapid physical, emotional, social, behavioral, intellectual, and moral growth. Hormonal changes during this period often cause emotional

fluctuations, making adolescents more sensitive, irritable, or overwhelmed by intense emotions(14–16).

Table 2. Demographic characteristic distribution of adolescents (N=147)

Characteristics	Category	Frequency (f)	Percentage (%)
Gender	Male	62	42.2
	Female	85	57.8
Grade Level	7 th	73	49.6
	8 th	37	25.2
	9 th	37	25.2
Parents' Occupation	Private Sector	53	36.1
	Civil	94	63.9
	Servant		

As shown in Table 2, most respondents were female (57.8%), while males accounted for 42.2%. Based on grade level, nearly half of the respondents were in the 7th grade (49.6%), with 8th- and 9th-grade students each comprising 25.2% of the total. Regarding parents' occupation, the majority were civil servants (63.9%), while 36.1% worked in the private sector. These characteristics suggest that respondents came from families with relatively similar educational and socioeconomic backgrounds.

Adolescent girls generally demonstrate better socio-emotional skills than boys, particularly in self-regulation and social competence. In contrast, male adolescents tend to suppress emotional expressions such as sadness or fear due to social norms that encourage strength and independence. They are also more likely to use avoidance or distraction strategies, such as gaming or sports, to manage stress(16–19). This gender difference in emotional expression and coping mechanisms can significantly influence the manifestation and recognition of mental health challenges in adolescents(20).

These demographic patterns suggest that emotional regulation is influenced not only by academic grade level but also by broader social experiences and

individual development. Emotional challenges during adolescence, such as those related to peer interactions, identity formation, and self-esteem, are not confined to specific school grades. Consequently, emotional regulation may be more contingent upon social context and personal maturation than on academic progression(19,20).

Parents' occupations are often associated with economic status, which may indirectly influence adolescents' social media activity. Families with higher economic capacity tend to have better access to technology, enabling greater online activity. This accessibility may contribute to increased social media use, potentially affecting adolescents' behavior and emotional well-being(21–25).

Table 3. Distribution of social media usage intensity and emotional regulation among adolescents (N=147)

Intensity of Social Media Usage	Emotional Regulation			Total
	Low	Moderate	High	
Low	0 (0,0%)	0 (0,0%)	13 (8,8%)	13 (8,8%)
Moderate	1 (0,7%)	4 (2,7%)	6 (4,1%)	11 (7,5%)
High	77 (52,4%)	39 (26,5%)	7 (4,8%)	123 (83,7%)
Total	78 (53,1%)	43 (29,2%)	26 (17,7%)	147 (100%)

Table 3 presents the cross-tabulation between social media usage intensity and emotional regulation levels among adolescents. Most respondents (83.7%) had high social media usage intensity, followed by moderate (7.5%) and low (8.8%) levels. In terms of emotional regulation, 53.1% had low emotional regulation, 29.2% were moderate, and 17.7% were high. These results indicate that adolescents with higher social media intensity tended to exhibit poorer emotional regulation abilities.

Based on respondents' answers, most students reported using social media for 4 to 5 hours per day. According to previous studies, using social media for more than four hours daily is classified as high usage intensity.

This prolonged engagement likely impacts emotional regulation, as extended exposure to online platforms may heighten emotional instability and reduce the ability to manage emotions effectively(11,26,27).

Of the 147 students surveyed, 78 had low emotional regulation, 43 were moderate, and only 26 had high emotional regulation. This suggests that most students struggle to manage their emotions, with only a few demonstrating effective emotional control. Overall, the higher the intensity of social media use, the lower the adolescents' ability to regulate their emotions(21,22).

Table 4. Relationship between social media usage intensity and emotional regulation among adolescents (N=147)

Variables	X ²	df	p-value
Social media usage intensity and emotional regulation	28.694	2	<0.001

Note: All expected cell frequencies were greater than 5 (minimum expected frequency = 49.0).

The Chi-square test revealed a statistically significant association between social media usage intensity and emotional regulation among adolescents ($\chi^2 = 28.694$, $df = 2$, $p < 0.001$). This finding confirms that differences in emotional regulation are significantly related to variations in social media usage intensity. Adolescents with higher usage intensity were more likely to experience lower emotional regulation.

This finding aligns with previous research, suggesting that extensive engagement with social media can detrimentally affect adolescents' capacity for emotional regulation. Persistent exposure to digital platforms may heighten susceptibility to stress, anxiety, and mood instability, thereby compromising effective emotional management(11,21). Furthermore, contributing factors such as social comparison, exposure to disturbing or adverse content, and the compulsion to curate an idealized online persona can exacerbate these challenges. Conversely, adolescents with reduced social media engagement typically exhibit more robust

emotional regulation, potentially due to increased opportunities for direct social interaction and introspection. This is further supported by studies indicating a correlation between problematic social media use and lower emotional intelligence, underscoring the importance of emotional competence in mitigating negative online impacts(21,23,24).

While the detrimental psychological effects of excessive social media engagement are widely acknowledged, its relationship with emotional regulation is characterized by considerable complexity. Nevertheless, when utilized judiciously, these platforms possess the capacity to foster positive social interactions, facilitate emotional expression, and furnish crucial social support mechanisms. Therefore, subsequent research should endeavor to delineate how varied modalities of social media engagement—specifically, active participation versus passive consumption—exert differential influences on adolescents' emotional regulation within diverse contextual parameters and content genres(25,27). Specifically, it is imperative to investigate the nuanced interplay between specific social media activities—such as active content creation, passive browsing, or direct messaging—and distinct facets of emotional regulation, including cognitive reappraisal and expressive suppression.

Neurophysiologically, extensive social media use stimulates the brain's reward system via dopaminergic pathways, fostering emotional reliance on online validation. Persistent overstimulation of the limbic system, combined with the developing prefrontal cortex in adolescents, impairs emotional regulation. Furthermore, consistent exposure to digital social stressors can activate the hypothalamic–pituitary–adrenal axis, increasing cortisol and destabilizing emotions(28). Constant digital stimuli intensify this neurobiological susceptibility, hindering emotion regulation, which is vital for adolescent mental health. Excessive social media use and impaired emotion

regulation are associated with increased adolescent mental health issues, such as depression and anxiety(11). Moreover, reduced emotional intelligence correlates with problematic social media use, as do difficulties in emotion regulation(21).

CONCLUSION

This study found a significant relationship between the intensity of social media use and emotional regulation among adolescents. Adolescents with higher levels of social media use tended to have lower emotional regulation abilities. Excessive engagement with social media may increase vulnerability to stress, anxiety, and emotional instability, reducing the capacity to manage emotions effectively.

These findings highlight the importance of monitoring adolescents' digital behavior and promoting balanced and mindful social media use. Schools, parents, and health professionals should work together to provide guidance, education, and interventions that foster healthy emotional development and responsible online engagement. Future research should explore how the quality and type of social media interactions influence emotional regulation, as not all forms of media use have negative effects; some may contribute positively to emotional expression and social connectedness when used constructively.

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