



## Study of The Influence of Social Media on Adolescent Behavior in Medan City in 2025

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### Abstract

*This study aims to analyze the influence of social media on adolescent behavior in Medan City in 2025. Using a quantitative method with a descriptive correlational approach, the research involved 100 adolescent respondents aged 13–20 years. The results show that the majority of adolescents use social media for more than 4 hours per day, with Instagram, TikTok, and YouTube as the main platforms. Social media provides positive impacts such as increased creativity, expanded social networks, and educational benefits. However, negative impacts were also found, including decreased study concentration, consumptive behavior, cyberbullying, and reduced direct social interaction. Parental supervision and digital literacy programs in schools have proven effective in mitigating these negative effects. This study recommends strengthening digital literacy, enhancing the role of parents, and developing responsible social media usage policies among adolescents.*

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## Introduction

Social media has become an inseparable part of adolescents' daily lives, particularly in urban areas such as Medan City, where digital connectivity and smartphone use continue to grow rapidly. In this era of technological acceleration, social media serves not only as a tool for communication but also as a platform that influences adolescents' ways of thinking, interacting, and constructing self-identity. Platforms such as Instagram, TikTok, and YouTube have become dominant spaces for self-expression, entertainment, and information sharing. However, the intensive and sometimes excessive use of these platforms has brought new challenges to adolescent development. The phenomenon of digital immersion has created both opportunities and risks offering spaces for creativity and learning while simultaneously exposing young users to misinformation, cyberbullying, and unhealthy social comparison (Beale et al., 2022; Leong, 2024).

In the context of Medan City, social media use among adolescents reflects broader social transformations driven by globalization and urban modernization (Harefa et al., 2025). The rapid increase in digital access has enabled adolescents to connect across diverse communities, learn new skills, and participate in global conversations. However, this connectivity also reshapes their social values and behaviors. Previous studies have shown that prolonged exposure to online environments can affect emotional regulation, academic concentration, and interpersonal communication (Fadillah & Laka, 2024; Laka & Fadillah, 2024). The online realm introduces new behavioral norms that sometimes conflict with local cultural values emphasizing face-to-face relationships, respect for elders, and community engagement. Thus,

understanding the influence of social media on adolescent behavior in Medan City is crucial for identifying the balance between global digital culture and local social norms (Hamdiah & Ahnaf, 2024; Alauddin et al., 2025). Social media can have significant positive impacts on adolescents' development. It can enhance creativity through content creation, support educational experiences via open-access learning materials, and strengthen social relationships through online collaboration (Selfa et al., 2022; Adil et al., 2024). Adolescents who engage productively in digital spaces often develop technical literacy, self-confidence, and cross-cultural understanding (Laili et al., 2022). For instance, TikTok trends encouraging artistic expression or YouTube channels dedicated to science education can become powerful tools for learning. However, alongside these benefits, researchers such as Ambarita (2024) have emphasized that excessive exposure to digital platforms often correlates with psychological stress, social isolation, and decreased academic motivation. The algorithmic design of social media favoring continuous engagement and emotional response can lead adolescents toward addictive behaviors that alter their daily routines and social interactions (De et al., 2025; Mujica et al., 2022).

Moreover, one of the most concerning outcomes of excessive social media use is cyberbullying, which has become a pervasive problem among youth (Ademiluyi & Park, 2022; Ray et al., 2024). Adolescents may encounter verbal aggression, exclusion, or digital humiliation in online spaces, which can severely impact their self-esteem and mental health (Ambarita, 2024). These experiences often go unnoticed by parents and teachers, as online interactions occur privately and across multiple platforms. Additionally, adolescents are increasingly exposed to misinformation and fake news circulating on social media, particularly concerning health, lifestyle, and social issues. Limited digital literacy skills make it difficult for them to differentiate between credible and unreliable information sources. This lack of evaluative ability contributes to the spread of disinformation and the adoption of distorted worldviews that can shape their attitudes and decisions in harmful ways (Abdulazeez et al., 2025; Chadwick & Stanyer, 2022).

Therefore, digital literacy and parental supervision emerge as two fundamental aspects in addressing the behavioral effects of social media on adolescents (Sugeng et al., 2022; Banić & Orehovački, 2024; Wang & Chen, 2022). Digital literacy encompasses not only technical skills in using digital tools but also critical thinking, ethical awareness, and emotional intelligence in navigating online environments (Saputra, 2025; Sari & Rosdiana, 2025; Septiawan, 2024; Sitompul & Rosdiana, 2025; Wandira et al., 2024). In schools, digital literacy programs can equip adolescents with the ability to verify information, manage their privacy, and engage responsibly on social platforms. Meanwhile, parental supervision serves as a protective mechanism. Parents who maintain open communication about social media use and establish reasonable boundaries can help adolescents balance online and offline life, preventing overexposure and emotional strain (Desinta, 2025). The combined influence of these two factors can strengthen adolescents' resilience against digital risks while maximizing the benefits of social media for learning and socialization.

From a theoretical perspective, this study is grounded in the Uses and Gratifications Theory, which posits that individuals actively select media to fulfill specific needs such as entertainment, socialization, identity formation, or information seeking (Ali, 2023; Zadeh et al., 2023). Adolescents in Medan City engage with social media for diverse reasons that align with these motivations. For some, it functions as a means of belonging and peer validation; for others, it is a platform for self-expression and creative experimentation (Zhakin, 2023; Kackar, 2024). Understanding these motivational patterns helps clarify why adolescents are drawn to certain types of content and how these preferences influence their social behaviors and personal values (Okela et al., 2025; Hidayatussoalihah et al., 2025; Lou et al., 2024; Na & Choi, 2024;

Tao et al., 2022; Sulistyono et al., 2022). The theory also underscores that media effects are not uniform but depend on users' intentions, literacy levels, and contextual factors such as family environment and education system. Despite the growing number of studies examining social media use among Indonesian adolescents, there remains a research gap in localized analyses that connect digital behavior with socio-cultural contexts like that of Medan City (Purboningsih et al., 2023; Fadillah, 2025). Most existing literature focuses on national or metropolitan samples (Jakarta, Surabaya), which may not fully represent the socio-economic and cultural diversity of Medan's youth. The city's unique blend of ethnic groups, religious communities, and educational backgrounds provides a valuable case for understanding how digital behaviors evolve within multicultural settings.

Therefore, this study aims to explore how social media use relates to behavioral tendencies among adolescents in Medan City, with particular attention to the roles of digital literacy and parental involvement. By identifying both the positive and negative influences of social media, this research seeks to contribute to the development of effective educational and family-based strategies that promote responsible digital engagement. The ultimate goal is to ensure that adolescents can benefit from digital platforms without compromising their psychological well-being, academic performance, or social relationships.

## **Method**

### **Research Design**

This study employed a quantitative research method using a descriptive correlational design. The quantitative approach was chosen because it allows the researcher to examine relationships between variables objectively through numerical data and statistical analysis. Specifically, this study sought to determine the relationship between social media use as the independent variable and adolescent behavior as the dependent variable. The correlational design was selected to describe and measure the degree of relationship between these two variables without manipulating or controlling them, thus maintaining the natural conditions of participants. Unlike experimental research, this approach does not aim to test causality but to identify the direction and strength of associations among variables that occur in real-life contexts. By employing this design, the study provides a more accurate and empirical understanding of how variations in social media use relate to behavioral tendencies among adolescents in Medan City.

### **Population and Sample**

The population of this research consisted of adolescents aged 13 to 20 years who are active users of social media platforms and reside in Medan City. Adolescence is a developmental stage where social media usage significantly shapes personality, communication styles, and social relationships, making this population suitable for the study's objectives. A total of 100 respondents were selected as the research sample using a purposive sampling technique. This non-probability sampling method was chosen because it allows the researcher to select participants who meet specific criteria relevant to the study's focus, namely adolescents who use at least one social media platform (e.g., TikTok, Instagram, or YouTube) for a minimum of one hour per day. The sample size of 100 was determined based on feasibility, accessibility, and its adequacy for correlational analysis, which generally requires a minimum of 30 to 100 participants for reliable statistical interpretation. The demographic composition of respondents, including age, gender, and type of school, was also considered to ensure diverse representation within the Medan adolescent population.

## Research Instrument

Data in this study were collected using a structured questionnaire that was carefully developed by the researcher based on relevant literature and previous empirical studies on social media and adolescent behavior (Fadillah & Laka, 2024; Saputra, 2025; Pradana, 2024). The questionnaire was designed to comprehensively capture information from respondents across several key dimensions relevant to the study objectives. It consisted of three main sections. The first section focused on profile and demographic information, including variables such as age, gender, and education level, which were important for understanding the background characteristics of the participants. The second section explored patterns of social media usage, encompassing the duration of daily use, the types of platforms most frequently accessed, the nature of content consumed, and the primary purposes for which social media was utilized such as entertainment, educational activities, or social interaction. The third section assessed adolescent behavioral indicators related to social media influence, including aspects such as academic concentration, quality of social interactions, emotional regulation, and consumer tendencies shaped by exposure to online content. To facilitate quantitative analysis, all items in the second and third sections employed a five-point Likert scale, ranging from *strongly disagree* (1) to *strongly agree* (5). This measurement scale allowed for the systematic quantification of participants' perceptions, attitudes, and experiences, thereby enabling a clearer understanding of the relationship between social media use and behavioral tendencies among adolescents in Medan City.

## Validity and Reliability Testing

Before data collection, the questionnaire underwent a pilot test involving 20 adolescents in Medan City to ensure clarity and relevance of the questions. The results of the pilot test were analyzed to assess instrument validity and reliability. Content validity was confirmed through expert judgment involving two lecturers in communication and behavioral studies, who reviewed the instrument for appropriateness, clarity, and alignment with the research objectives. Construct validity was tested using item-total correlation analysis, and all items with correlation coefficients above 0.30 were retained for the final instrument. Reliability testing was conducted using Cronbach's Alpha coefficient, resulting in an alpha value of 0.84, which exceeds the minimum acceptable threshold of 0.70. This indicates that the questionnaire has a high level of internal consistency and reliability for measuring both variables.

## Data Collection Procedure

Data collection was conducted between January and March 2025 through both online and face-to-face methods to maximize participation. The researchers distributed the questionnaire via Google Forms and directly in schools and youth community centers around Medan City. Respondents were first informed about the purpose of the research, and informed consent was obtained prior to participation. To ensure ethical compliance, all responses were treated confidentially and used solely for academic purposes. Participants were given the freedom to withdraw from the study at any time without consequence.

## Data Analysis Technique

The collected data were processed and analyzed using descriptive and inferential statistics. Descriptive analysis was used to summarize demographic characteristics and patterns of social media use, including frequencies, percentages, means, and standard deviations. Inferential analysis was then applied using the Pearson Product-Moment Correlation Coefficient ( $r$ ) to determine the direction and strength of the relationship between social media use and adolescent behavior. A positive correlation coefficient indicates that higher social media use is associated with more noticeable behavioral changes, while a negative coefficient would

suggest the opposite. The level of significance was set at  $p < 0.05$ . All statistical analyses were performed using SPSS version 26 to ensure accuracy and reliability of the results.

## Result and Discussion

The following section presents the empirical findings of this study regarding the influence of social media use on adolescent behaviour in Medan City in 2025. The results are organized systematically based on the research variables, including duration of social media use, dominant platforms accessed, perceived positive and negative impacts, and moderating factors such as parental supervision and digital literacy programs. Through descriptive and correlational statistical analysis using the Pearson Product-Moment Correlation Coefficient, the data provide a comprehensive overview of how variations in social media engagement relate to behavioural tendencies among adolescents. This section aims to objectively describe the statistical patterns identified from the 100 respondents before further interpretation and theoretical discussion are elaborated in the subsequent discussion subsection.

Table 1. Duration of Social Media Use among Adolescents in Medan City

Duration of Use	Frequency	Percentage (%)
More than 4 hours per day	78	78%
Less than 2 hours per day	22	22%
Total	100	100%

Based on Table 1, the majority of adolescents in Medan City (78%) use social media for more than four hours per day, indicating a high level of digital engagement. Such extended usage suggests that social media has become an integral part of their daily activities, influencing their routines, social interactions, and even emotional well-being. The remaining 22% who use social media for less than two hours per day exhibit more controlled behavior, likely reflecting better self-regulation or limited access. According to the descriptive correlational framework of this study, the high duration of usage is a significant factor that correlates with various behavioral outcomes measured in later sections.

Table 2. Dominant Social Media Platforms Used by Respondents

Platform	Frequency	Percentage (%)
Instagram	42	42%
TikTok	35	35%
YouTube	18	18%
Others	5	5%
Total	100	100%

Table 2 shows that Instagram (42%) and TikTok (35%) are the most widely used platforms among adolescents, followed by YouTube (18%). This dominance of visually driven and interactive platforms illustrates a cultural shift among youth toward fast-paced, visual, and socially connected communication. These platforms allow adolescents to express identity, creativity, and social belonging, aligning with the *Uses and Gratifications* theory that media is used to satisfy personal and social needs. However, from a correlational perspective, such exposure to visually intensive and socially comparative content may also contribute to negative behavioral outcomes such as self-image anxiety and consumerism, as discussed in subsequent findings.

Table 3. Reported Positive Impacts of Social Media among Adolescents

Positive Impact	Frequency	Percentage (%)
Increased creativity	61	61%
Used for educational purposes	53	53%
Expanded friendship networks	67	67%

As presented in Table 3, social media use among adolescents provides several positive outcomes. A total of 67% reported that it helped them expand their friendship networks, indicating enhanced social connectivity across peer groups. 61% acknowledged an increase in creativity, often through activities such as content creation, participation in digital challenges, or developing new online skills. Meanwhile, 53% of respondents utilized social media for educational purposes, such as accessing study materials, online tutorials, or motivational content. In line with the quantitative correlational design, these findings suggest a moderate positive association between social media engagement and productive outcomes like creativity and self-directed learning. These benefits demonstrate that, when used responsibly, social media can function as an informal learning environment that complements formal education and personal growth.

Table 4. Reported Negative Impacts of Social Media among Adolescents

Negative Impact	Frequency	Percentage (%)
Decreased concentration in learning	59	59%
Consumerist behavior	48	48%
Cyberbullying experiences	23	23%
Reduced direct social interaction	41	41%

The results in Table 4 highlight the major behavioral challenges associated with excessive social media use. 59% of respondents reported experiencing a decline in concentration during study time, which correlates with prolonged screen exposure and distraction from continuous notifications. 48% exhibited consumerist tendencies, showing that online advertisements and influencer marketing strongly shape adolescents' consumption patterns. Additionally, 23% had experienced cyberbullying, emphasizing the psychological risks linked to unregulated online interactions, while 41% reported reduced face-to-face communication. These findings confirm that while social media offers opportunities for learning and connection, it also introduces cognitive and emotional strains. The correlational analysis implies a positive relationship between longer screen time and increased exposure to negative behavioral tendencies, reinforcing the need for preventive strategies through digital education and family supervision.

Table 5. Moderating Factors Influencing Adolescent Social Media Behavior

Moderating Factor	Frequency	Percentage (%)
Active parental supervision	38	38%
Attendance in schools with digital literacy programs	31	31%
No specific supervision or digital literacy exposure	31	31%

Table 5 demonstrates that 38% of respondents reported receiving active parental supervision during their social media use, while 31% attended schools with structured digital literacy programs. Another 31% had no significant exposure to either form of guidance. Adolescents with parental supervision showed notably fewer negative effects such as addiction, exposure to harmful content, or decreased academic focus. Parental involvement often includes open communication, screen-time regulation, and moral guidance—all of which strengthen adolescents' capacity for self-control and critical judgment online. Likewise, participation in

digital literacy programs correlates with increased awareness of online ethics, privacy, and information verification. Respondents who benefited from both forms of guidance exhibited more responsible digital behavior and balanced usage patterns. The descriptive correlational evidence therefore indicates that these moderating variables play a crucial role in shaping healthy and productive online engagement among adolescents.

### **The Role of Families and Schools in Shaping Healthy Social Media Use among Adolescents in Medan City**

These findings emphasize the importance of the role of families and schools in shaping healthy social media use among adolescents in Medan City. Parents need to be empowered to carry out active supervision in a communicative and supportive manner, while schools must integrate digital literacy programs comprehensively into the curriculum. This approach not only minimizes the negative impacts of social media but also maximizes its benefits as a means of creativity, education, and social networking. Thus, adolescent behavior in Medan City can develop positively, balancing between the digital world and real life. The discussion of the results of this study refers to the Uses and Gratifications theory which explains how adolescents use social media to meet various psychological and social needs. The high intensity of social media use among respondents is in line with global findings on the increasing dependence of adolescents on digital platforms. However, the duration of excessive use has the potential to disrupt the cognitive and social development of adolescents.

The negative impacts found, especially in terms of learning disorders and cyberbullying, show similar patterns to previous studies in various urban areas of Indonesia. These findings reinforce the importance of the active role of parents and educational institutions in guiding adolescents in using social media in a healthy way. The results of this study also support the importance of implementing a comprehensive digital literacy program at the school and community levels. Based on these findings, it can be concluded that although social media offers various benefits for adolescents, its uncontrolled use can have various negative impacts. The recommendations of this study include: (1) strengthening digital literacy programs in schools, (2) increasing parental involvement in supervising children's use of social media, and (3) developing policies that encourage responsible social media practices among adolescents.

Based on these findings, it can be concluded that although social media offers various benefits for adolescents, its uncontrolled use can have various negative impacts. Social media is indeed a very important platform for adolescents to express themselves, learn new things, and build social networks. However, without proper management, the use of social media can cause impaired concentration, consumer behavior, cyberbullying, and a decrease in the quality of direct social interactions. Therefore, the balance between benefits and risks must be the main focus in managing the use of social media by adolescents.

The first recommendation proposed is to strengthen digital literacy programs in schools. Digital literacy is crucial because it equips teenagers to understand how to use social media wisely and safely. This program not only teaches how to recognize valid and useful content, but also equips students with critical thinking skills regarding the information they receive. With strong digital literacy, teenagers can avoid the traps of fake news, cyberbullying, and other negative behaviors that often occur in cyberspace. The second recommendation highlights the importance of increasing parental involvement in supervising their children's use of social media. Parents who actively monitor and discuss digital activities with their children can help guide teenagers to use social media in a healthy and responsible manner. This involvement also creates an open communication space, so that teenagers feel supported and find it easier to report if they experience problems such as bullying or social pressure on social media. Thus, the role of parents is a key pillar in reducing the negative impacts of social media.

The third recommendation is the development of policies that encourage responsible social media practices among adolescents. These policies can be in the form of time usage regulations, restrictions on access to harmful content, and awareness campaigns involving various parties such as schools, government, and social media platform providers. Effective policies will create a safer and more conducive digital environment for adolescent development, while reducing the risk of social media misuse. The implementation of these three recommendations requires strong synergy between schools, families, and the government. Schools as educational institutions must be the center for strengthening digital literacy, while families play a role as the main companions in supervising and forming children's digital character. The government and related institutions need to provide regulations and supporting facilities so that these efforts run effectively. This collaboration is important to create a healthy digital ecosystem and support optimal adolescent growth and development. With the implementation of these recommendations, it is hoped that adolescent behavior in the digital era, especially in Medan City, can develop positively and in a balanced way. Adolescents are not only able to use social media for productive and educational things, but also have the awareness and ability to avoid its negative impacts. This will produce a young generation that is creative, critical, and responsible in using digital technology, so that they can contribute maximally to society and the future of the nation.

## Conclusion

Based on the results and discussion of the journal, it can be concluded that social media has a significant influence on adolescent behavior in Medan City in 2025. Intensive use of social media, especially through platforms such as Instagram, TikTok, and YouTube, provides benefits in the form of increased creativity, access to education, and expansion of friendship networks. However, on the other hand, uncontrolled use also has negative impacts such as decreased concentration in learning, consumptive behavior, cyberbullying experiences, and reduced direct social interaction. This study also emphasizes the importance of the role of active supervision from parents and digital literacy programs in schools in minimizing these negative impacts. Adolescents who receive supervision and digital education tend to have more positive experiences in using social media. Therefore, strengthening digital literacy, parental involvement, and developing policies that support the responsible use of social media are important steps to create a healthy digital environment and support optimal adolescent development in Medan City.

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