Journal of Health and Medical Science
Vol. 1 No. 2 2025, 43-50
Publisher: CV. Doki Course and Training

Digital Interaction and Student Mental Health in the Modern Technological Era: A Phenomenological Study

Amanda Damayanti, Mardiatusaleha, Amanda Febriyani, Konto Iskandar Dinata
Universitas Islam Negeri Raden Fatah Palembang
Corresponding email: amandadamayanti004@gmail.com

ARTICLE INFO

Keywords
Digital Interaction
Mental Health
Students Phenomenological Study
Digital Literacy

ABSTRACT

This study explores the lived experiences of students regarding digital interactions and their implications for mental health in the modern technological era. Using a phenomenological qualitative approach, the research involved two informants selected through purposive sampling, consisting of individuals aged 18-25 years who actively use digital media for 3-4 hours daily. Data were collected through semi-structured interviews, observations, and documentation, then analyzed using phenomenological steps combined with thematic analysis. The findings reveal that digital interactions are integral to students' daily lives, with social media usage reaching 2-3 hours per day. Four main themes emerged: intensity of use and behavioral dependence, emotional impact and mental fatigue, formation of self-image and digital literacy as protection, and interpersonal impact and ethics of use. The study demonstrates that intensive digital interactions can trigger psychological risks such as anxiety, stress, depression, and feelings of isolation. However, good digital literacy and healthy management of digital interactions serve as protective factors against these negative impacts. This research concludes that understanding students' subjective experiences in digital technology interactions is crucial for developing appropriate strategies to maintain psychological well-being and promoting awareness of digital ethics and technology use time management in the digital age.

Introduction

Rapid advances in digital technology over the past decade have significantly changed social interaction patterns, ways of obtaining information, and learning processes among students. Social media, online communication applications, digital learning platforms, and smart devices are now an integral part of students' academic and social lives (Abueva & Buzelo, 2025). This transformation has brought various conveniences, such as increased access to information and flexibility in learning, but it has also given rise to increasingly complex psychological consequences.

A number of quantitative studies show that the intensity of digital technology use correlates with increased levels of anxiety, academic stress, depression, and feelings of isolation among students (Alba et al., 2025; Wicaksono et al., 2025). Other studies also link excessive social media use to concentration disorders, mental fatigue, and decreased psychological well-being due to information overstimulation and high cognitive demands

(Putri et al., 2025). These findings reinforce the indication that digital interactions play a significant role in shaping students' mental health.

In addition, literature from the past five to ten years highlights the role of certain psychosocial mechanisms, such as social comparison, social validation, and exposure to self-idealization content, as factors that exacerbate the mental health of social media users (Vogel et al., 2014; Purwanto, 2024). Students tend to compare themselves with idealized representations of others in the digital space, which contributes to decreased self-esteem and increased psychological stress. Unhealthy digital interactions also increase the risk of cyberbullying, which has been shown to be associated with emotional trauma and long-term psychological disorders (Kowalski et al., 2018).

On the other hand, intensive use of digital devices, especially at night, has been associated with impaired sleep quality among students. Chronic sleep deprivation has implications for emotional regulation, concentration, and academic performance, thereby reinforcing the link between digital technology use and mental health (Scott et al., 2019). Nevertheless, digital technology also provides new opportunities in the form of access to mental health information, online counseling services, and more inclusive psychosocial support (Tamta, 2025).

However, although much research has been conducted on the relationship between digital technology and student mental health, most studies are still dominated by quantitative approaches that emphasize variable relationships and the measurement of psychological symptom levels. These approaches tend not to delve deeply into students' subjective experiences in interpreting digital interactions and how these experiences are felt and internalized in their daily lives. Thus, there is still a gap in research related to the phenomenological understanding of how students experience, interpret, and respond to the impact of digital interactions on their mental health.

Based on this gap, this study aims to explore in depth the lived experiences of students related to digital interactions and their implications for mental health. Using a phenomenological approach, this study is expected to provide a more contextual and comprehensive understanding of the psychological dynamics of students in the modern technological era, while complementing existing quantitative findings.

Method

This study uses a qualitative research method with a phenomenological approach to understand individuals' life experiences related to the impact of digital interactions on mental health. A qualitative approach was chosen because it provides space for researchers to explore the subjective meanings that arise from participants' experiences in depth. The phenomenological approach was used to examine how individuals experience, feel, and interpret digital interactions in their daily lives, enabling researchers to discover the essence of this phenomenon more comprehensively (Creswell, 2013). Thus, this approach allows

researchers to not only identify the impact of digital interactions on mental health but also understand the psychological and social processes that shape these experiences.

The research was conducted at locations selected according to research needs, taking into account accessibility and the relevance of the location to the participants' digital interaction activities. There were two research informants, selected using purposive sampling techniques. The criteria for informants included: (1) individuals in early adulthood (18–25 years old), (2) active users of digital media, especially social media, for at least 3–4 hours per day, and (3) having subjective experiences related to changes in emotional or mental health conditions due to digital interaction. The selection of participants in this study was not based on large numbers, but rather on the depth and relevance of experiences that could enrich the data (Patton, 2002).

Data collection was conducted through semi-structured interviews, observation, and documentation. Interviews were conducted individually with a duration of approximately 45–60 minutes for each participant. The interview guide was designed to be flexible to allow for in-depth exploration of experiences, with sample questions such as: “How do you feel when interacting on digital media in your daily life?”, “Have you ever experienced emotional or mental changes as a result of these digital interactions?”, and “What strategies do you use to manage these impacts?”. Observations were conducted to understand the context of participants' digital media use, while documentation in the form of social media usage logs, screenshots, and daily notes was used as supporting data to enrich the understanding of participants' narratives.

In this study, the researcher acted as the main instrument in determining informants, building relationships with participants, collecting data, and interpreting the meaning of the experiences shared. Researchers are required to understand the context, be reflective, flexible, and maintain objectivity throughout the research process so that interpretations remain based on the participants' experiences (Moleong, 2017). Supporting instruments such as interview guidelines, recording devices, and field notes are used to assist in the systematic documentation of data.

Data analysis was conducted in stages by combining phenomenological steps according to Moustakas (1994) and thematic analysis. The initial stage involved epoche, which is the researcher's attempt to refrain from personal assumptions so that the data remains pure and derived from the participants' experiences. Next, horizontalization was carried out by giving equal value to each important statement. The data was then analyzed through an initial coding process to identify units of meaning, which were then grouped into essential themes through thematic coding. These themes are described in the form of textual descriptions (what the participants experienced) and structural descriptions (how the experience occurred), until in the final stage the researcher formulates the essence of the experience related to the impact of digital interaction on mental health.

To maintain the trustworthiness of the research, several strategies were used, namely triangulation of sources and methods by comparing data from interviews, observations, and

documentation. In addition, member checking was carried out by asking participants to review the summary of the interview results to ensure the accuracy of the meaning. The researcher also compiled a reflective journal during the research process to record assumptions, emotional reactions, and analytical decisions made, so that the transparency and credibility of data interpretation could be maintained.

The entire research process has complied with research ethics principles and obtained approval from the Research Ethics Committee. Ethical aspects that have been taken into consideration include obtaining informed consent, maintaining participant confidentiality, and the right of participants to withdraw from the study at any time. The application of research ethics aims to protect participants from psychological risks and maintain the integrity of the research as a whole (Israel & Hay, 2006).

Results and Discussion

The study showed that digital interactions are an integral part of subjects ' daily lives, with the duration of social media use such as Instagram and TikTok reaching 2-3 hours per day. This pattern of intense and widespread use from adolescence confirms the deep integration of technology in individual development.

Table 1
Themes, subthemes, and indicators of Digital usage patterns

Themes	Sub theme	Indicators	Representative Quotes
Intensity Of Use	Daily Duration	Screen time 2-3 hours/day	"Instagram is the same as TikTok at most, it can be 2-3 hours a day" (Informant 1)
	Access Frequency	Unlock your phone repeatedly	"That's why you have to be so careful when you open the door again." (page 2)
Behavioral Dependence	Difficulty Removing The Device	Feeling anxious when away from your phone	"If HP missed it there is less, restless" (Informant 1)

	Pandemic Impact	Increased use during insulation	"When the pandemic gets worse, because at home, what you do is play cellphone" (informant 2)
Self-Regulation	Attempts At Restrictions	Enable control features	"I've tried using screen time reminder, sometimes it works, sometimes it doesn't" (Informant 1)
	Coping Strategies	Airplane Mode or save HP	"If you want to focus, I'll take the cellphone far away or airplane mode" (informant 2)

Both subjects admitted to having difficulty detaching themselves from the Mobile, an experience that was exacerbated during the COVID-19 pandemic. Informant 1 stated, " during the pandemic it was like there were no other activities, so playing cellphone continued from morning to night."While informant 2 added," Now it's working but the habit is still carried, it's hard to escape from social media."

Despite the similarity in dependency patterns, deviations between the two informants in self-regulation strategies were found. Informant 1 tends to rely on technological features (screen time reminder), while informant 2 more often uses physical strategies (storing HP in hard-to-reach places). These differences indicate individual variation in coping mechanisms against overuse.

This phenomenon can be seen through the framework of Process Perspective on Problematic Interaction with New Technologies (PPINT), which explains that constant involvement with technology, especially for communication and information, can generate behavioral dependence (Brand et al., 2020). The subject's conscious attempts to limit

themselves, such as activating reminder mode or airplane mode, are indicative of the importance of self-regulation in mitigating the potential negative effects of excessive use. However, these findings should be interpreted with caution given the limited number of informants (n=2) and the specific context of students/fresh graduates in urban areas. Generalizations to a wider population require research with larger and diverse samples, as well as taking into account demographic variations such as age, socio-economic background, and different cultural contexts.

Emotional impact and Mental fatigue the results of interviews consistently show that digital content acts as a mediator of emotions, aligned with the concept of Emotional Contagion in an online environment (Valkenburg & Peter, 2011). Subjects reported rapid mood swings, ranging from feeling sympathy and joy to anxiety, proving that digitally expressed emotions can trigger similar affective responses in recipients. However, excessive exposure to other people's life narratives also creates negative side effects. The saturated or tired experience of seeing other people's life updates experienced by both subjects is a manifestation of Social Media Fatigue (Turel et al., 2011), which is triggered by the pressure to do social comparison constantly in accordance with Social Comparison Theory. This fatigue requires the subject to take digital detox measures, such as seeking other activities, as a coping strategy to restore mental health.

The formation of self-image and Digital literacy as a protector of digital interactions have been shown to have a central role in the formation of self-image, with both subjects estimating the influence to reach 80 to 90%. This is supported by Self-Presentation Theory (Goffman, 1959), in which social media serves as a stage for managing and projecting identity. The positive impact, as experienced by Aliya, is the ability to reduce introversion and expand relationships. Although both subjects had been involved in FOMO, they showed mature protective strategies. The decision to rarely share their personal lives has effectively spared them the experience of cyberbullying. This strategy is reinforced by both subjects ' recognition of the importance of Digital literacy (Livingstone, 2012). Digital literacy is considered crucial, not only to distinguish positive information (such as mental health education content from psychiatrists) and negative, but also to prevent themselves from being provoked by hoax news, which collectively safeguard their digital well-being.

Interpersonal impact and ethics of use although digital interactions facilitate communication and sharing, which makes the subject feel more connected to family and friends, face-to-face relationships become an important ethical issue. The experience of a reprimand when one of the Friends plays mobile while gathering directly highlights the conflict between digital connectedness and physical presence. This emphasizes the need for a Digital ethic, in which individuals must be aware of limits and respect time together, as both subjects emphasize. This awareness also extends to the issue of surveillance, where both subjects voiced the need for strict parental supervision of children's use of devices,

indicating a collective recognition of the vulnerability of the younger generation to the impact of technology.

Conclusion

The study concluded that digital interactions have a significant effect on the mental health of college students, who are a vulnerable group to the impact of modern technology. Intensive and excessive use of social media as well as digital devices can pose a risk of psychological disorders such as anxiety, stress, depression and feelings of isolation. However, good digital literacy and healthy management of digital interactions can be protective in the face of these negative impacts. This study affirms the importance of deep understanding of students ' subjective experience in interacting with digital technology to develop appropriate strategies in maintaining their psychological well-being and encourage awareness of digital ethics and time management of technology use. The findings of this study make a new contribution to the development of psychological science, especially in the context of mental well-being in the digital age.

References

Abueva, N., & Buzelo, A. (2025). Digital Technologies and Student Mental Health : Risks of Social Media and the Promise of Virtual Reality and Autonomous Sensory Meridian Response Interventions. October, 2179–2191.

Alba Madrid-Cagiga, Carmen Kealy, Courtney Potts, Maurice D. Mulvenna, Molly Byrne, Margaret M. Barry, G. D. (2025). Digital Mental Health Interventions for University Students With Mental Health Difficulties : A Systematic Review and Meta- - Analysis. 2008. https://doi.org/10.1111/eip.70017

Brand, M., Wegmann, E., Stark, R., Müller, A., Wölfling, K., Robbins, T. W., & Potenza, M. N. (2020). The Process Perspective on Problematic Interaction with New Technologies (PPINT): A theoretical framework for specific addictions to technological Interactions. Neuroscience & Biobehavioral Reviews, 113, 455–468. doi: 10.1016/j.neubiorev.2020.04.032

Creswell, J. W. (2013). Qualitative Inquiry and Research Design: Choosing Among Five Approaches. SAGE Publications.

Febri, H. (2024). Stres No More : Strategi Efektif Mengelola Stres di Tengah Kehidupan Digital. 2.

Goffman, E. (1959). The presentation of self in everyday life. Anchor Books.

Israel, M., & Hay, I. (2006). Research Ethics for Social Scientists. SAGE Publications.

Livingstone, S. (2012). Critical approaches to digital literacy: Past, present and future. In D. R. Jones (Ed.), Media and the well-being of children and adolescents (pp. 67–85). Springer.

Moleong, L. J. (2017). Metodologi Penelitian Kualitatif. PT Remaja Rosdakarya.

Moustakas, C. (1994). Phenomenological Research Methods. SAGE Publications.

Patton, M. Q. (2002). Qualitative Research & Evaluation Methods. SAGE Publications.

Purwanto, M. R. (2024). Pengaruh Media Sosial Terhadap Kesejahteraan Mental Mahasiswa : Studi Kasus Di Fakultas Ilmu Agama Islama Universitas Islam Indonesia. 1475–1486.

Putri, T. A., Nova, J. G., Putri, T. A., & Anita, R. (2025). Tren Penelitian Dampak Kecanduan Media Sosial Bagi Remaja.

Tamta, P. (2025). Digital Technology in Mental Health and Well- Being : Opportunities and Challenges. 10(June), 25–30.

Turel, O., Serenko, A., & Bontis, N. (2011). User acceptance of social networking sites: A comparison of students and non-students. Information Systems Journal, 21(6), 497–519. doi: 10.1111/j.1365-2575.2010.00350

Wicaksono, A., Karrel, C., & Palupi, R. (2025). Dampak Gadget Dalam Kesehatan Mental. 1(2), 50–53.