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Relationship Between Loneliness and Fear Without a Smartphone (Nomophobia) Among TikTok Users

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Abstract

The use of social media has become an important part of everyday life, especially for students who use it for entertainment, communication, learning, and information seeking. High intensity of use is often associated with various psychological problems, including feelings of loneliness and dependence on smartphones, also known as nomophobia. One of the platforms widely used by students today is TikTok, which provides short, interactive, and easily accessible video content. This study aims to determine the relationship between loneliness and nomophobia among students who use the TikTok application. A correlational quantitative approach was used, involving 163 students aged 18 to 23 years who actively use TikTok. Measurements were taken using the UCLA Loneliness Scale to measure loneliness levels and the Nomophobia Questionnaire or NMP-Q to measure nomophobia levels. Data analysis was performed using Pearson's correlation test to determine the direction and strength of the relationship between variables. The results showed a correlation coefficient of $r = 0.15$ with $p < 0.05$, indicating a significant positive relationship between loneliness and nomophobia. These findings suggest that students with higher levels of loneliness tend to exhibit higher levels of nomophobia. This study is expected to contribute to understanding the psychological dynamics of students in their use of social media and serve as a reference for further research.

Keywords: Loneliness, Nomophobia, Students, Social Media, TikTok

1. Introduction

In today's digital age, social media has become an integral part of modern society. Advances in information technology allow individuals to quickly and easily access various platforms for communication, entertainment, and social networking (Yohanna, 2020). Some of the most popular social media platforms in Indonesia include WhatsApp, LINE, Twitter/X, Facebook, Instagram, YouTube, and TikTok (Hakim et al. 2024). One of the platforms that has experienced the most rapid growth in recent years is TikTok, a short-form video-based social media platform that relies on the "For You Page" algorithm to deliver highly personalized and addictive content to each user (Jain et al. 2025). Features such as Duet, Stitch, and creative effects and music that are easy to integrate make TikTok not only a means of entertainment, but also a space for users to build and display their digital identities (Yunita & Wijayanti, 2025).

The number of TikTok users globally reached 1.59 billion in January 2025, with Indonesia ranking second with around 107.68 million users (Meltwater, 2025). The Victory report (2025) also shows that TikTok is one of the most popular social media platforms, especially among young people and students. TikTok's high popularity among students is inseparable from its role as an easily accessible medium for self-expression, entertainment, and social connection (Parapat & Azhar, 2024).

Students are in a transitional phase towards adulthood, marked by various academic demands, social adjustments, and the search for identity (Sánchez-Queija et al. 2023). These pressures make students more vulnerable to stress and other psychological problems. In this context, TikTok is often used not only for entertainment but also as a medium for self-expression, social connection, and escape from academic and emotional pressure (Syarifuddin et al., 2025). However, excessive use of TikTok also has psychological impacts that need to be considered, one of which is nomophobia (no mobile phone phobia).

Nomophobia is a condition of anxiety that arises when individuals cannot access their cell phones or digital applications, and is a form of psychological dependence on digital devices (Yildirim & Correia, 2015). This condition does not merely refer to the fear of losing an object, but rather to the psychological attachment to the function and existence of the cell phone itself (Santoso & Soetjningsih, 2021). One of the most relevant dimensions of nomophobia in this context is losing connectedness, which is the fear or anxiety that individuals feel when they cannot connect to the digital networks or platforms they normally use (Jahrami et al. 2022). Among students, the urge to stay connected online is often driven by the need for social validation, a sense of belonging, and the desire to keep up with developments in their circle of friends and online communities (Notara et al. 2021). This dimension of losing connectedness reflects anxiety about the possibility of being cut off from digital social interactions, which for some students serve as an escape from feelings of isolation or loneliness in real life (Wulandari & Haryuni, 2020).

Loneliness is a subjective experience that arises when there is a gap between one's actual social relationships and one's desired social relationships (Perlman & Peplau, 1981). Among students, this condition is quite common due to the challenges of college life, such as academic pressure, adaptation to a new environment, and limited emotional support (Yunitasari et al. 2025). In addition, life transitions also play an important role in triggering loneliness, especially when individuals face major changes such as moving away from home to attend college. When the process of adapting to this transition does not go well, individuals become more vulnerable to loneliness because they feel they have to face challenges alone without adequate support (Magdalena et al., 2023). When loneliness is not handled properly, students tend to seek escape through instant and easily accessible digital interactions, one of which is through TikTok. Social media then becomes a place of escape to fulfill emotional needs, and when access to media devices is cut off, the underlying sense of alienation that causes loneliness can be further reinforced and trigger excessive anxiety (Heng et al. 2023).

Research conducted by Fahira et al. (2021) shows that high levels of loneliness in individuals tend to increase the risk of nomophobia. This occurs because individuals try to reduce their feelings of loneliness by shifting their attention to their smartphones, resulting in fear and anxiety when they cannot access these devices. Although several studies have examined the relationship between loneliness and nomophobia with social media use, there are still few studies that specifically examine the relationship between loneliness and nomophobia among students, especially TikTok users. In fact, the TikTok platform has now become a very dominant social media among students and is widely used by students as a means of entertainment, information, and self-expression through the creation and distribution of video content (Putri & Astutik, 2021). This platform offers creative features such as music, filters, and visual effects that trigger high engagement, but the intensity of its use also has the potential to cause negative effects such as decreased concentration and the risk of digital addiction (Yildirim & Correia, 2015). The selection of TikTok as the context for this study is based on the limited number of studies that explicitly examine the relationship between TikTok use and certain psychological aspects, particularly nomophobia and loneliness. Souza and Carlesso (2025) emphasize that research on nomophobia and TikTok use in Brazil alone is still relatively rare compared to other parts of the world, indicating an important gap in the global literature. Meanwhile, Jain et al. (2025) note that although various aspects of TikTok's impact on mental health have been extensively studied, the relationship between loneliness and TikTok use has not been explored in depth.

Therefore, this study was conducted to fill this gap by focusing on the relationship between loneliness and nomophobia among students who use the TikTok application. It is important to further investigate how loneliness plays a role in driving the emergence of nomophobia, especially among students who use the TikTok application. This study is expected to provide a deeper understanding of how feelings of loneliness play a role in driving the emergence of nomophobia among students who use the TikTok application.

2. Research Methods

Participants in this study were active students who used the TikTok application without limiting specific higher education institutions. The participant criteria included: (1) being an undergraduate/D4 student, (2) actively using TikTok in the last six months, and (3) being aged 18–25 years. The minimum number of participants was determined to meet the statistical analysis requirements for testing the relationship between the two variables. The sample size was calculated using the G*Power 3.1 application by setting the significance level (α) at 0.05 and the statistical power at 0.95. The effect size refers to the study by Santoso and Soetjningsih (2022), which shows a correlation coefficient between loneliness and nomophobia of $r = 0.308$ ($p = 0.003$). Based on these parameters, the minimum sample size was 109 participants.

In the distribution of research data, this study obtained 163 participants who met these criteria. This study used purposive sampling, which is a method of determining samples that are taken if they meet certain criteria in accordance with the research topic. This technique was chosen because not all populations meet these characteristics, so this method allows researchers to reach relevant subjects practically and efficiently in a limited time. The participants in this study were male and female students aged 18-23 years who had actively used the TikTok application in the last 6 months. Participants in this study were grouped based on age and gender. Based on the data, the highest number of participants were female, namely 130 people (79.1%). Based on the results of descriptive analysis, the participants in this study ranged in age from 18 to 23 years old, with a minimum age of 18 and a maximum age of 23, with an average ($M = 21.01$, $SD = 1.21$). The data can be seen more clearly in table 1.

Table 1. Overview of Participant Gender

Gender	Frequency	Percentage (%)
Male	34	20,9
Female	129	79,1
Total	163	100

In addition to demographic characteristics, this study also describes the duration of TikTok use among participants. Based on the data obtained, TikTok usage duration was classified into two categories: less than 1 hour per day and more than 1 hour per day. The majority of participants fell into the category of using TikTok for more than 1 hour per day, namely 145 people (89.0%), while 18 people (11.0%) used TikTok for less than 1 hour per day. The complete data is presented in Table 2.

Table 2. Overview of Participants' TikTok Playing Duration

TikTok Playing Duration	Frequency	Percentage (%)
<1hour/day	18	11,0
>1hour/day	145	89,0
Total	163	100

This study uses a quantitative approach with a non-experimental correlational method and a cross-sectional design. This approach was chosen because the study aims to analyze the relationship between loneliness and nomophobia among students who use the TikTok application, with data collection conducted at a specific time without manipulation of the research variables.

To measure the variable of loneliness, this study used the UCLA Loneliness Scale Version 3 developed by Russell (1996). This measurement tool consists of 20 items with a 4-point Likert scale (1 = never to 4 = always) and has a Cronbach's alpha reliability coefficient of 0.88. The blueprint for the UCLA Loneliness Scale Version 3 instrument is presented in Table 3.

Table 3. Blueprint UCLA Loneliness Scale (Version 3)

Dimensi	Favorable	Unfavorable	Total
Unidimensional	2, 3, 4, 7, 8, 11, 12, 13, 14, 17, 18	1, 5, 6, 9, 10, 15, 16, 19, 20	20

Next, the nomophobia variable was measured using the Nomophobia Questionnaire (NMP-Q) developed by Yildirim and Correia (2015). This instrument consists of 20 items with a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree) and has a Cronbach's alpha reliability coefficient of 0.92. The NMP-Q is divided into four dimensions, namely not being able to reach information, losing connectedness, not being able to communicate, and giving up convenience. The blueprint of the Nomophobia Questionnaire (NMP-Q) instrument is presented in Table 4.

Tabel 4. Blueprint Nomophobia Questionnaire (NMP-Q)

Dimensi	Favorable	Unfavorable	Total
Not Being Able to Reach Information	10, 11, 12, 13, 14, 15	-	6
Losing Connectedness	16, 17, 18, 19, 20	-	5
Not Being Able to Communicate	1, 2, 3, 4	-	4
Giving Up Convenience	5, 6, 7, 8, 9	-	5
Total			20

3. Results

This study involved 163 students who were active users of the TikTok application. The scores on the loneliness variable ranged from 1 to 4, while the nomophobia scores ranged from 1 to 7. The hypothetical mean value on the loneliness scale was 2.5 and on the nomophobia scale was 4, which was the midpoint of each scale. Descriptive analysis results show that the minimum loneliness score was 1.10 and the maximum was 3.20, while nomophobia had a minimum score of 2.10 and a maximum of 6.55. The empirical mean for loneliness was below the hypothetical mean, while the empirical mean for nomophobia was above the hypothetical mean. These findings indicate that respondents' loneliness levels tended to be low, while nomophobia levels were relatively high.

Table 5. Overview of Data for Both Variables

Variables	Min	Max	Mean	SD
Loneliness	1,10	3,20	2,15	0,44
Dimensi <i>Not Being Able to Communicate</i>	1,00	7,00	5,10	1,14
Dimensi <i>Losing Connectedness</i>	1,00	7,00	4,65	1,19
Dimensi <i>Not Being Able to Reach Information</i>	1,40	7,00	4,94	1,12
Dimensi <i>Giving Up Convenience</i>	2,10	7,00	4,94	1,23
Total <i>Nomophobia</i>	2,10	6,55	4,94	0,98

Before testing the hypothesis, a normality assumption test was first conducted using the One-Sample Kolmogorov–Smirnov Test. The test results showed an Asymp. Sig. (2-tailed) value of 0.20 ($p > 0.05$), so it can be concluded that the data is normally distributed and meets the requirements for Pearson correlation analysis.

Table 6. Normality Test Results

Statistic	Value
N	163
Kolmogorov–Smirnov Z	0,63
Sig. (Asymp. Sig. 2-tailed)	0,20

After conducting a normality test, a Pearson correlation test was performed to determine whether there was a relationship between loneliness and nomophobia. The test results showed a significant but weak relationship between loneliness and nomophobia with a value of $r = 0.15$ and $p = 0.05$ ($p < 0.05$). These results indicate that the higher the level of loneliness felt by students, the higher the tendency to experience nomophobia.

Table 7. Results of the Correlation Test between Loneliness and Nomophobia

Loneliness	Nomophobia
r	0,15
p	0,05

These findings are in line with research by Fahira et al. (2021), which states that individuals with high levels of loneliness tend to have a greater risk of experiencing nomophobia. In addition, these results also reinforce the research by Gezgin et al. (2018), which found a positive relationship between loneliness and nomophobia, whereby individuals feel increasingly lonely when they cannot access their smartphones.

Further analysis shows that loneliness is significantly related to the dimensions of losing connectedness and giving up convenience. The results between loneliness and the dimension of losing connectedness have a value of $r = 0.17$ with $p = 0.02$ ($p < 0.05$). Based on the results, it can be concluded that there is a significant relationship between loneliness and the dimension of losing connectedness. The results between loneliness and the dimension

of not being able to communicate have a value of $r = 0.07$ with $p = 0.35$ ($p > 0.05$). Based on the results, it can be concluded that there is no significant relationship between loneliness and the dimension of not being able to communicate.

Table 8. Correlation Test of Loneliness with Nomophobia Dimensions

Variables		Not Being Able to Communicate	Losing Connectedness	Not Being Able to Access Information	Giving Up Convenience
Loneliness	r	0,07	0,17	0,05	0,19
	p	0,35	0,02	0,49	0,01

The relationship with the dimension of losing connectedness shows that individuals who fear losing social connectedness through smartphones tend to experience higher levels of loneliness. This finding is in line with Nowland (2017), who explains that excessive use of social media as a means of social relating can increase feelings of loneliness. Jones (2014) also states that many individuals use smartphones to seek social acceptance, which in some cases develops into a dependence on online communication.

Loneliness was also found to be significantly related to the dimension of giving up convenience. This shows that individuals who feel uncomfortable without their smartphones tend to have higher levels of loneliness. This finding is in line with the research by Fahira et al. (2021), which states that lonely individuals tend to use smartphones as a source of emotional comfort. The difference between this study and previous studies lies in the object of study, which specifically focuses on TikTok users.

The results of the gender difference test show that there is a difference in loneliness levels between male and female students, with males having higher levels of loneliness than females. Based on the results of the difference test, the mean loneliness score for male participants was 46.50 (SD = 7.78) and for female participants was 42.27 (SD = 8.99). Furthermore, the homogeneity test using Levene's test produced a value of $F = 0.82$, $p = 0.36$ ($p > 0.05$). The t-value was 2.50 and $p = 0.01$ ($p < 0.05$).

Table 9. Results of Loneliness Difference Test Based on Gender

Gender	Loneliness		t	p
	Mean	SD		
Male	46,50	7,78	2,50	0,01
Female	42,27	8,99		

These findings are in line with Barreto et al. (2020), who stated that men tend to find it more difficult to express their feelings and build emotional closeness. Maes et al. (2020) also explained that high levels of loneliness in men can be influenced by limited social interaction and a mismatch between social expectations and reality. In contrast, women tend to find it easier to express their emotions and build more supportive social relationships. Unlike loneliness, the results of the analysis show that there is no difference in nomophobia based on gender. These findings indicate that the tendency toward nomophobia can be experienced relatively equally by both men and women.

Based on the duration of TikTok use, the analysis results show that there is no difference in the level of loneliness based on the length of application use, but there is a difference in the level of nomophobia. Students who use TikTok for more than one hour per day have a higher level of nomophobia than students who use TikTok for less than one hour per day. The results of the difference test showed that the mean nomophobia score for participants who played TikTok for 1 hour/day was 100.79 (SD = 18.35). Furthermore, the homogeneity test using Levene's test produced a value of $F = 1.55$ $p = 0.21$ ($p > 0.05$). The t-value was -3.22 and $p = 0.00$ ($p < 0.05$). These findings are in line with the research by Fajri and Karyani (2021), which states that the more frequently individuals use social media, the higher their tendency to experience nomophobia.

Table 10. Results of Nomophobia Difference Test Based on TikTok Application Playing Duration

TikTok Playing Duration	Nomophobia		t	p
	Mean	SD		
>1 hour/day	100,79	18,35	-3,22	0,00
<1 hour/day	85,61	22,46		

4. Discussions

This study aims to determine the relationship between loneliness and nomophobia among 163 students who are active users of the TikTok application. The results show that there is a positive and significant relationship between loneliness and nomophobia, although the strength of the relationship is relatively weak. This means that the higher the level of loneliness experienced by students, the higher their tendency to experience nomophobia. Further analysis of the dimensions of nomophobia shows that the dimensions of losing connectedness and giving up convenience have a significant relationship with loneliness, while the dimensions of not being able to communicate and not being able to access information do not show a significant relationship. In addition, the results of the difference test show that there are differences in loneliness levels based on gender, but there are no differences in nomophobia levels based on gender. Based on the duration of TikTok use, no differences in loneliness were found, but there were differences in nomophobia levels, where students with more than one hour of use per day had higher levels of nomophobia than students with less than one hour of use per day. The results of this study are expected to enrich social psychology studies, particularly regarding the relationship between loneliness and nomophobia among students. Further research is recommended to examine the role of the dimensions of losing connectedness and giving up convenience as mediators or moderators in the relationship between loneliness and nomophobia in order to obtain a more comprehensive understanding. In addition, future research is also recommended to consider user characteristics, such as gender differences, motives for smartphone use, and to use a qualitative approach so that individuals' subjective experiences related to loneliness and nomophobia can be explored more deeply. Practically, the results of this study can be used as a reference for universities, particularly counseling services and student affairs, in developing educational and mentoring programs related to healthier smartphone use. These findings are also expected to help students become more aware of their digital usage patterns, particularly in the use of TikTok, and encourage wiser management of digital activities to maintain psychological well-being.

Reference

- [1] Yohanna, A. (2020). The influence of social media on social interactions among students. *Indonesian Journal of Social*. 12(2), 34–48. <https://doi.org/10.20473/ijss.v12i2.22907>
- [2] Hakim, H., Polin, I., & Irwansyah. (2024). Peran media sosial Instagram sebagai media informasi dalam masyarakat 5.0. *Jurnal Ilmiah Wahana Pendidikan*, 10(23), 287–300. <https://zenodo.org/records/14564263>
- [3] (2025). Exploring problematic TikTok use and mental health issues: A systematic review of empirical studies. *Journal of Primary Care & Community Health*, 16, 1–30. <https://doi.org/10.1177/21501319251327303>
- [4] Yunita, H., & Wijayanti, A. (2025). Analisis tentang dampak aplikasi TikTok pada siswa SDN 65 Desa Suka Rami Kecamatan Kedurang Ilir Kabupaten Bengkulu Selatan. *Jurnal Ilmiah IDEA*, 3(2), 75–80. <https://jurnal.umb.ac.id/index.php/idea/article/download/7948/4685/31>
- [5] Meltwater. (2025). 8 negara dengan pengguna TikTok terbesar (per Januari 2025) [Instagram post]. Instagram. Diakses 23 Juli 2025, dari https://www.instagram.com/p/DGhM1EFRfeb/?utm_source=ig_web_copy_link
- [6] Victory. (2025). Data pengguna TikTok Indonesia 2025. 2025.co.id. Diakses 22 Juli 2025, dari <https://2025.co.id/data-pengguna-tiktok-di-indonesia-2025-we-are-social>
- [7] Parapat, D. A., & Azhar, A. A. (2024). Pemanfaatan media sosial TikTok sebagai sumber informasi berita bagi mahasiswa FIS UIN Sumatera Utara Medan. *Gudang Jurnal Multidisiplin Ilmu*, 2(10), 46–56. <https://doi.org/10.59435/gjmi.v2i10.943>
- [8] Sánchez-Queija, I., Domínguez-Alarcón, P., Díez, M., & Parra, Á. (2023). Identity development and adjustment during emerging adulthood from a gender perspective. *British Journal of Developmental Psychology*, 42(2), 441–459. <https://doi.org/10.1111/bjdp.12470>
- [9] Syarifuddin, S., Triyono, S., Nur'ani, F., Rahmia, S. H., & Rusmaniah. (2025). Analysis of the TikTok social media phenomenon for students: A case study of the millennial generation. *The Kalimantan Social Studies Journal*, 6(2), 209–217. <https://ppjp.ulm.ac.id/journals/index.php/kss>
- [10] Yildirim, C., & Correia, A.-P. (2015). Exploring the dimensions of nomophobia: Development and validation of a self-reported questionnaire. *Computers in Human Behavior*, 49, 130–137. <https://doi.org/10.1016/j.chb.2015.02.059>
- [11] Santoso, A. C., & Soetjningsih, C. H. (2022). Kesepian dengan nomophobia pada mahasiswa. *Bulletin of Counseling and Psychotherapy*, 4(2), 434–440. <https://doi.org/10.51214/bocp.v4i2.331>
- [12] Jahrami, H., Fekih-Romdhane, F., Saif, Z., Bragazzi, N. L., Pandi-Perumal, S. R., BaHamman, A. S., & Vitiello, M. V. (2022). A social media outage was associated with a surge in nomophobia, and the magnitude of change in nomophobia during the outage was associated with baseline insomnia. *Clocks & Sleep*, 4(4), 508–519. <https://doi.org/10.3390/clocksleep4040040>
- [13] Notara, V., Vagka, E., Gnardellis, C., & Lagiou, A. (2021). The emerging phenomenon of nomophobia in young adults: A systematic review study. *Addiction and Health*, 13(2). <https://pmc.ncbi.nlm.nih.gov/articles/PMC8519611/>

DOI: <https://doi.org/10.31004/riggs.v4i4.4296>

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- [14] Wulandari, R. P., & Haryuni, S. (2020). Hubungan antara ketergantungan smartphone dengan nomophobia dan interaksi sosial. *Jurnal Mahasiswa Kesehatan*, 3(2). <https://doi.org/10.30737/jumakes.v2i1.1274>
- [15] Perlman, D., & Peplau, L. A. (1981). *Social psychology of loneliness*. Academic Press.
- [16] Yunitasari, P., Arsyad, M., & Makaria, E. C. (2025). Analisis kuantitatif: Pengaruh psychological well-being terhadap loneliness pada mahasiswa angkatan 2022 Jurusan Ilmu Pendidikan Universitas Lambung Mangkurat. *Journal of Education Research*, <https://jer.or.id/index.php/jer/article/view/2324>
- [17] Magdalena, S. M., Sudagijono, J. S., & Mulya, H. C. (2023). Hubungan family functioning dan kesepian pada mahasiswa perantau. *Jurnal Experientia*, 11(1), 20–29. <https://jurnal.ukwms.ac.id/index.php/EXPERIENTIA/article/download/4604/3326/>
- [18] Heng, S., Gao, Q., & Wang, M. (2023). The effect of loneliness on nomophobia: A moderated mediation model. *Behavioral Sciences*, 13(7), 595. <https://doi.org/10.3390/bs13070595>
- [19] Fahira, Z., Amna, Z., Mawarपुरy, M., & Faradina, S. (2022). Kesepian dan nomofobia pada mahasiswa perantau. *Gajah Mada Journal of Psychology (GamaJoP)*, 8(1), 77–90. <https://doi.org/10.22146/gamajop.65827>
- [20] Putri, A. M., & Astutik, A. P. (2021). TikTok as a generation-Z Islamic religious learning media during the Covid-19 pandemic. *Jurnal Pendidikan Agama Islam*, 18(2), 273–294.
- [21] Souza, A. B. de, & Carlesso, J. P. P. (2025). Nomophobia and the impact of TikTok use on adolescents' behavior. *RevistaAracê*, 7(1), 1543
- [22] Gezgin, D. M., Hamutoglu, N. B., Sezen-Gultekin, G., & Ayas, T. (2018). The Relationship between nomophobia and loneliness among Turkish adolescents. *International Journal of and Science*. 4(2), 359-370. *Research in Education* <https://www.bing.com/ck/a?!&&p=be4d46112d09b71437d487628b3cd261d57e3272d952c768367ea59JmltdHM9MTc2MzUxMDQwMA&ptn=3&ver=2&hsh=4&fclid=178be669-4167-6ae0-1a49f2f440226b4a&u=a1aHR0cHM6Ly9maWxlcY5lcmljLmVkLmdvdi9mdWxsdGV4dC9FSjExODQ5NTgucGRm&ntb=1>
- [23] Nowland, Necka & Cacioppo. (2017). Loneliness and social internet use : pathways to reconnection in a digital world. *Journal Perspectives On Psychological Science*. https://www.researchgate.net/publication/319993668_Loneliness_and_Social_Internet_Use_Pathways_to_Reconnection_in_a_Digital_World
- [24] Jones, T. (2014). Students' cell phone addiction and their opinions. *The elon journal of undergraduate* (1), 74-80. *research in communications*, 5, <https://www.scribd.com/document/319150754/Students-Cell-Phone-Addiction-and-Their-Opinions-pdf>
- [25] Barreto, M., Victor, C., Hammond, C., Eccles, A., Richins, M. T., & Qualter, P. (2021). Loneliness around the world: Age, gender, and cultural differences in loneliness. *Personality and Individual Differences*, 110066. <https://doi.org/10.1016/j.paid.2020.110066>
- [26] Maes, M., Qualter, P., Vanhalst, J., Van den Noortgate, W., & Goossens, L. (2019). Gender differences in loneliness across the lifespan: A meta-analysis. *European Journal of Personality*, 33(6), 642-654.
- [27] Fajri, F. V., & Karyani, U. (2021). Nomophobia pada Mahasiswa: Menguji Hubungan Intensitas Penggunaan Media Sosial dan Kontrol Diri. *Jurnal Psikologi*, 17(1), 22–29.