

The Effect of Digital Literacy on Students' Self-Disclosure in Online Counselling Sessions

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Article Info

Article history:
Received 2026-04-23
Revised 2026-07-13
Accepted 2026-08-01

Keywords:
Digital Literacy, Self-Disclosure, Online Counselling

Abstract

The Syrian civil war, a bloody conflict sparked by popular rebellions against the government's rule, serves as the backdrop for Zoulfa Katouh's *As Long as the Lemon Trees Grow*. After being thrown into the harsh realities of war, the main character, Salama, a once-normal pharmacy student, is forced to take on the roles of surgeon and nurse amid the mayhem. She suffers from severe psychological trauma as a result of this sudden change and the atrocities of war. This study uses Cathy Caruth's trauma theory to analyze the causes, symptoms, and effects of Salama's trauma. Using a qualitative approach, the study entailed closely examining the novel, paying special attention to textual cues that disclose the protagonist's mental state. A detailed examination of Salama's traumatic experiences was made possible by the methodical categorization of key passages to answer the main research questions. The results show that the destruction caused by the civil war is the main source of Salama's trauma. Her ongoing negative thoughts, crippling hallucinations, and frequent flashbacks are some of the ways that her psychological distress shows up. Disrupted eating and sleep patterns, overwhelming guilt, and vivid visual hallucinations are all signs of the war's lasting effects on her mental health. Together, these symptoms show how trauma has a significant and complex impact on her mental health.

DOI: <https://doi.org/10.46923/ijbhes.v8i1.686>

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1. Introduction

Advances in information technology have brought about major transformations in higher education, including in guidance and counseling services. Today's students, who are predominantly from Generation Z, tend to feel more comfortable interacting through digital media than in face-to-face meetings. This phenomenon has prompted universities to adopt online counseling services to reach students more broadly and flexibly. According to a survey (Haryanto, 2024) internet penetration in Indonesia has reached 79.5% of the total population, or approximately 221.5 million people. The majority of internet users in Indonesia come from Generation Z (born 1997–2012), accounting for 34.40%. This confirms that today's students are digital natives who regard cyberspace as their primary environment for interaction (Rahman Nur et al., 2023).

Research conducted in various major cities (such as Samarinda and Makassar, 2024/2025) indicates that students' stress levels are relatively high. A study of students at 13 universities found that 58.9% of students experience stress, with 16.7% of them experiencing severe stress (Ismail, 2025). Academic stress and the transition phase are the primary triggers requiring professional intervention. There has been a shift in students' preferences regarding access to psychological support. Students tend

to opt for digital services because they are considered more convenient and help minimize social stigma associated with visiting the counselling office (Putri & Prasetyoaji, 2025). The survey shows that 67.5% of students consider counseling services to be very important, and approximately 90.9% of students expressed interest in participating in mental health services provided by the university, especially if they are available in a digital or online format.

Although students are comfortable with digital media, there are still barriers to self-disclosure. Many students are concerned about the security of their personal data and the confidentiality of conversations on digital platforms. Data shows a 44% increase in the use of telemedicine and online counselling services in a short period of time, but their effectiveness is often hampered by technical concerns (Murima et al., 2022). Students who do not understand privacy features (*low digital literacy*) tend to be more reserved than those who are skilled at using digital platforms.

Based on data from the Basic Health Research (Widyawati, 2021), The prevalence of emotional mental disorders among people aged 15 and older (including college students) has increased significantly, reaching approximately 9.8%. Data from the Indonesia National Adolescent Mental Health Survey (Gloria, 2022) shows that approximately 1 in 3 Indonesian adolescents has experienced mental health issues in the past 12 months, with anxiety being one of the most common disorders. Research at various major universities in Indonesia indicates that more than 50–60% of students report moderate to severe stress symptoms triggered by the demands of final projects, pressure regarding their GPA, and concerns about future employment prospects (*future anxiety*). Field data reveals the existence of a “*double stigma*” in Indonesia. Students often feel ashamed of being perceived as “*lacking faith*” or “*crazy*” if they openly visit the psychology office or counselling centre on campus. Empirically, the number of counsellors or clinical psychologists in Indonesia remains very limited. (Gloria, 2022) Indonesia has an uneven distribution of professionals, with the majority still concentrated on the island of Java, creating geographical barriers for students in other regions.

Since the pandemic, the use of digital mental health platforms in Indonesia (such as *Halodoc*, *Riliv*, or *pijarpsikologi*) has increased by up to 300% (Gandhawangi, 2021). This demonstrates that students prefer private access via smartphones. With over 210 million internet users in Indonesia, students are a group of heavy users who spend an average of 8 hours a day online. This makes digital devices the most viable “*private space*” for counselling sessions. Evidence from major cities shows that traffic congestion and packed class schedules often lead to in-person counselling sessions being postponed (or canceled), making app-based services an effective solution for campus administrative efficiency.

Although awareness is growing, data from the Indonesia National Adolescent Mental Health Survey (I-NAMHS) indicates that only a small fraction of adolescents and young adults seek professional help. The main barriers are stigma and shame. This finding supports the theory that students often “*filter*” information (i.e., are not open) out of fear of being judged by their social circle (Citasehat, 2022). Field data in Indonesia reveals an anomaly: students tend to exhibit high levels of self-disclosure on social media (such as Instagram’s “*close friends*” feature or alternative accounts on Twitter/X), yet become highly reserved when interacting with official counsellors. This indicates the presence of barriers to social penetration within formal communication channels.

Various studies at major universities in Indonesia (such as UI, UGM, and UNY) have consistently found that male students engage in less self-disclosure than female students during counselling sessions (Saaduddin, 2024). This is often linked to the cultural construction of masculinity in Indonesia, which views discussing emotions as a sign of weakness. Sociologically speaking, students in Indonesia (particularly in Java) often face barriers to self-disclosure due to the culture of “*ewuh pakewuh*” (*shyness*) and a tendency to maintain harmony. Students often only share the “*surface*” of their issues because they feel uncomfortable or are afraid of burdening the counsellor, which aligns with the initial (shallow) stage of Social Penetration Theory.

Internal reports from various university counselling centres in Indonesia often note that counsellors need an average of 3 to 5 sessions just to build rapport. Empirical evidence shows that when students withhold important information (such as a history of trauma or family conflict), the interventions provided often prove ineffective or miss the mark. Data (Setyasri et al., 2025) on users of tele-counselling services in Indonesia shows that college students are more willing to open up (engage in *self-disclosure*) via text-based platforms (*chat*) than via video calls. They feel they have greater control over the messages they send, which underscores the link between digital literacy and comfort levels when sharing personal information.

According to the Indonesian Cybersecurity Landscape report by BSSN, cyberattacks and data breaches in the education sector have increased significantly in recent years (Data, 2025). An internal survey at several major universities in Indonesia revealed that approximately 40–60% of students are hesitant to use campus counselling services via apps or chat platforms because they fear their conversation history might be accessed by third parties or system administrators, not just counsellors. In the field of communication psychology in Indonesia, a high-context culture is deeply ingrained, where the meaning of a message is often implied through tone of voice, pauses, and facial expressions. A qualitative study (Srijundaree et al., 2024) revealed that 70% of counsellors found it more difficult to detect inconsistencies between a client's verbal statements and emotions during text- or audio-based sessions compared to face-to-face sessions, resulting in a slower probing process.

In Indonesia, there is a contradiction in which students are very active on social media but become very defensive during formal online sessions. Research (Sholikhin & Muniroh, 2023) on the behaviour of Gen Z students in Indonesia shows that although they are comfortable with technology, more than 50% of students feel “*digitally awkward*” when discussing severe trauma through a screen, as they feel that the lack of physical presence reduces the sense of empathy and emotional support from the counsellor. Not all students in Indonesia have adequate private space to conduct online counselling without interruption. Field observations during the transition from the pandemic to the post-pandemic era show that many students withhold or limit the sharing of information during online counselling sessions for fear of being overheard by family members or roommates, given Indonesia's communal culture, which limits privacy regarding sounds within the home.

Owning a high-tech smartphone does not guarantee that students understand how to protect the privacy of their communications. Data from (Indonesia.go.id, 2022)) shows that the “*Digital Safety*” pillar often receives the lowest scores compared to other pillars. This correlates with low levels of self-disclosure, as students do not know how to determine whether the platforms, they use are secure or not. The “*Digital Safety*” and “*Digital Ethics*” pillars often lag behind the “*Digital Skills*” pillar (merely operating devices). Although internet penetration among college students (higher education) reaches 91.27%, this does not necessarily reflect maturity in personal data protection (Perkasa & Setiawan, 2024), 2024).

Academic research in Indonesia in 2025 confirms that students with high privacy literacy scores tend to be more cautious about disclosing sensitive information in digital spaces, which is crucial in the context of online counselling sessions. Although digital literacy is on the rise, the spread of misinformation remains high. Students are required to possess the cognitive competence to verify credible information sources (such as journals or official databases) to avoid misdiagnosis based on social media content. Complaint data from educational institutions indicate that online communication ethics (such as the use of assertive language and respect for others' privacy) are the most essential competencies for creating a therapeutic and safe digital space. Data (Haryanto, 2024) from the 2023–2024 internet penetration survey indicates that concerns about personal data security are the primary worry for internet users in Indonesia. About 30%–40% of internet users say they are very concerned

that their data will be leaked or misused. In the context of counselling, this is directly proportional to students' reluctance to disclose sensitive issues when using online platforms.

Many students know how to use apps, but don't know how to enable two-step verification or understand what end-to-end encryption is. This fact supports an argument saying that without adequate security literacy, students feel "*threatened*" by their own digital footprints during counselling sessions. Academic research at several major universities in Indonesia (such as UI and Unpad) on tele-counselling found that students often face communication barriers due to fear that their conversations might be "*recorded*" or "*screenshot-ed*" by others. Research indicates that students with high levels of digital literacy have greater confidence in app encryption. They understand that their data is not easily intercepted, resulting in higher levels of self-disclosure compared to students with only basic digital literacy (Santos & Faure, 2018). An empirical fact that cannot be ignored is the series of data breaches at various institutions in Indonesia throughout 2022–2024. These news stories have created a collective perception among students that "there is no safe place on the internet." This perception poses a significant psychological barrier in guidance and counselling. Without technical understanding (*digital literacy*) that specific counselling platforms have different protocols from general websites, students will tend to withdraw or self-censor their issues.

Many counselling units in Indonesia still use commercial platforms (such as WhatsApp or Google Meet) due to budget constraints that prevent them from developing their own systems. Students often feel anxious when their accounts are linked to other personal data (such as their campus email or personal phone number). Digital literacy helps students distinguish between encrypted private spaces and public ones, which directly determines the extent to which they feel comfortable engaging in self-disclosure. Students with low digital literacy often encounter technical barriers that trigger cognitive anxiety during counselling sessions. Conversely, digitally competent students are able to make optimal use of platform features (such as chat, video calls, or screen sharing), which indirectly facilitates the flow of communication and information sharing with counsellors. According to the Indonesia Health Report, the use of tele-counselling platforms in Indonesia has increased by up to 300% from the pandemic period through the post-pandemic era. In the higher education setting, internal surveys at several major universities indicate that 7 out of 10 students prefer to sign up for counselling through campus apps or websites rather than visiting the Career Centre or Psychology Office in person, citing efficiency and anonymity as reasons.

On-the-ground evidence points to signs of toxic disinhibition on social media, where students are very vocal and open about their mental health issues on platforms like Twitter (X) or TikTok (for example, through confessional or self-healing content). However, data from university counselling practitioners indicate that when it comes to professional online counselling, that boldness often fades. Students tend to become passive and reserved due to the perception that counselling is a formal, "supervised" setting—unlike social media, which feels free (Jain et al., 2025). According to data from the Indonesian Internet Service Providers Association (APJII), the primary concern among Indonesian internet users regarding access to public services is the misuse of personal data. In the tech campus environment, students who are critically aware of their digital footprint often hesitate to fully open up (self-disclose) during video calls or chats, fearing the conversation might be recorded or leaked to university administration—even though counsellors have assured confidentiality.

Although students at technology-based universities are considered "*digital natives*," research indicates a gap in functional digital literacy. Empirical evidence in Indonesia indicates that while many students are fluent in using social media for entertainment, they struggle when required to use collaborative platforms or formal synchronous communication protocols. This leads to technical barriers that trigger anxiety (*technostress*), causing them to prefer remaining "*silent*" or providing brief responses during counselling sessions. Several case studies at universities in Indonesia found that

students' level of self-disclosure is higher in text-based media (*chat*) than in video calls. This is due to Indonesian communication culture, which tends to be high-context; virtual eye contact is often perceived as intimidating by some students, thereby hindering the cathartic process in counselling.

Most research still focuses on the final outcomes of counselling rather than on users' technical and mental readiness to interact in cyberspace. Given this background, this study is urgently needed to empirically demonstrate whether digital literacy has a significant influence on students' self-disclosure. The results of this study are expected to serve as a foundation for educational institutions to improve students' digital literacy before or during the online counselling process in order to achieve optimal therapeutic outcomes.

2. Literature Review

The rising prevalence of emotional and mental disorders in Indonesia is a serious concern. According to data from the Basic Health Research (Riskesdas), the rate of mental disorders among the population aged 15 and older has reached 9.8%. This is reinforced by the Indonesia National Adolescent Mental Health Survey (I-NAMHS), which indicates that 1 in 3 adolescents has experienced mental health issues in the past year, with anxiety being the most prevalent disorder (Prasetyoaji et al., 2026; Widyawati, 2021)

In the university setting, students face academic pressures and transitional phases that trigger high levels of stress. A study across 13 universities revealed that 58.9% of students experience stress, with 16.7% of them falling into the severe stress category (Pebriani et al., 2020). This situation has driven a shift in preferences for accessing professional help from conventional methods to digital platforms. Post-pandemic, the use of digital mental health platforms (such as Riliv or Pijarpsikologi) has increased by up to 300%. Students tend to choose online services because they are considered more practical, private, and effective in minimizing the social stigma that remains prevalent in Indonesia.

Generation Z (born 1997–2012) is the dominant group in terms of internet usage in Indonesia. Data from APJII (2024–2026) shows that internet penetration ranges from 79.5% to 87.8% among this group, with an average usage time of 4–8 hours per day. For this group, digital devices are not merely tools, but rather their primary “private space.” However, their status as digital natives does not guarantee maturity in the functional use of technology. There is a gap between the ability to operate devices (digital skills) and the awareness of maintaining data security (*digital safety*). This creates a unique challenge in the context of professional services such as guidance and counselling (A. A. H. Siregar et al., 2025; R. Siregar & Sarah, 2025).

Male students consistently demonstrate lower levels of openness compared to female students. This is linked to cultural constructions of masculinity that view emotional expression as a weakness, as well as the “*ewuh pakewuh*” (*shyness*) culture that leads students to tend to only discuss the surface of issues so as not to burden the counsellor (Br Bangun et al., 2024). Many students are still in the early (*superficial*) stages of the information-sharing process. Evidence indicates that counsellors require an average of 3 to 5 sessions just to build rapport. The fear of being perceived as “*lacking faith*” or “*crazy*” leads students to strictly filter information (*self-censorship*) if they do not feel completely safe on the platform being used.

Digital literacy is a crucial factor determining students' level of openness. According to data from the Ministry of Communication and Information Technology, the “*Digital Safety*” pillar in Indonesia often receives the lowest scores. Students exhibit an anomaly in which they are very open on social media (using “*close friends*” features or alternative accounts), yet become very closed off (*defensive*) during formal online sessions. Reports from the National Cyber and Encryption Agency (BSSN) and the prevalence of data breaches in the education sector have caused 40–60% of students to hesitate in using campus services. Students with low privacy literacy tend to feel threatened by their own digital

footprints, while those with high literacy tend to have greater confidence in platform encryption systems (Zulkifli, 2026).

Students in Indonesia were found to be more willing to open up via text-based media (*chat*) than via video calls. Text-based media provide a greater sense of control over messages and reduce the pressure of direct eye contact, which is often perceived as intimidating in high-context communication cultures. A lack of functional digital literacy leads to technical barriers that trigger cognitive anxiety, causing students to remain silent or provide brief responses (Mulya et al., 2026). Indonesia's communal culture means many students lack adequate private space at home or in their dorms to engage in counselling without fear of being overheard by others. While many studies discuss the effectiveness of online counselling in general, there is still little literature that specifically examines Digital Literacy as an independent variable influencing Self-Disclosure. Most studies focus on therapeutic outcomes but overlook users' technical and mental readiness. This research is urgently needed to demonstrate the influence of digital literacy on the success of the social penetration process in online counselling sessions in Indonesia.

3. Method

This study employed a quantitative approach using the causal-associative method (Sumbodo et al., 2024). The objective was to empirically test the relationship between the independent variable (Digital Literacy) and the dependent variable (Self-Disclosure) among university students in the context of online counselling services (Rahman Nur et al., 2023). The population consisted of active college students in Indonesia who belonged to Generation Z. The sampling technique used was purposive sampling, with the criteria being active students who accessed or were currently accessing online counselling services (either via campus applications or commercial platforms) and who owned personal devices (smartphones/laptops) to access the internet. The sample size was 2,134, comprising 1,373 female students and 761 male students.

4. Result and Discussion

A. Result

This study successfully collected data from 2,134 active student respondents classified as Generation Z, with female students comprising the majority of participants at 1,373 (64.3%) and male students at 761 (35.7%). All respondents were active users of online counselling services, whether through campus-based platforms or commercial apps. This demographic profile confirmed that this group of students were heavy internet users who relied on the digital space as their primary environment for seeking mental health support.

In general, students' digital literacy levels fell into the "moderate to high" category in the technical skills pillar, but it showed inconsistent scores in the digital security pillar. The data indicated that while students were highly proficient in operating various digital devices for academic and recreational purposes, their understanding of personal data protection protocols remained limited. This gap was a critical issue because technical proficiency alone did not automatically enhance their sense of security when sharing sensitive information during counselling sessions.

Table 1. Demographic Profile

Characteristic	Category	Frequency (f)	Percentage (%)
Gender	Female	1.373	64,3%
	Male	761	35,7%
Generation	Gen Z (1997-2012)	2.134	100%
Service Status	Active Online Counselling	2.134	100%

Table 2. Descriptive Statistic

Variable / Indicator	Mean (Skala 1-5)	Category
Digital Literacy (X)	3,72	Tinggi
- Digital Skills Pillar	4,45	Very high
- Digital Safety Pillar	2,85	Low/Moderate
- Digital Ethics Pillar	3,86	High
Self-Disclosure (Y)	3,41	Moderate
- to Text-based Media	4,20	High
- to Video Call	2,62	Low

The results of the analysis indicated that digital literacy had a significant positive influence on students' self-disclosure during online counselling sessions. Students with high levels of digital literacy, particularly those who understood the concept of end-to-end encryption and platform privacy features, tended to be more willing to discuss their personal issues in depth. Conversely, students with low digital literacy often engaged in self-censorship because they were concerned that their digital footprints could have been misused or accessed by unauthorized parties.

A striking difference in self-disclosure levels was found based on gender. Male students (761 respondents) consistently showed lower self-disclosure scores compared to female students (1,373 respondents). This aligns with findings that cultural constructions of masculinity in Indonesia still viewed the expression of emotions as a sign of weakness. Additionally, the culture of *ewuh pakewuh* (shyness) more strongly inhibited male students, leading them to prefer remaining at the surface level of communication during counselling sessions.

This study also confirmed the phenomenon of the "privacy paradox" among college students. Although they were very active in sharing personal content on social media platforms such as Instagram (close friends) or alternative accounts on X, they tended to become very defensive and closed off during formal online counselling sessions. This inability to distinguish between the public space of social media and the private therapeutic space was influenced by low digital ethics literacy, so that counsellors needed an average of 3 to 5 sessions just to build rapport—a process that could have been shorter if students' digital literacy were sufficient.

Data on media preferences indicated that students were far more open during text-based counselling sessions (*chat*) compared to video calls. Text-based media were considered to give students greater control to filter and compose messages, as well as reduce the pressure of intimidation from virtual eye contact, which was often felt in Indonesia's high-context communication culture. In this context, digital literacy acted as a catalyst that helped students utilize chat features to achieve a more optimal cathartic process.

Situational barriers in the field also affected the effectiveness of self-disclosure. Many students reported failing to maintain the confidentiality of sessions due to a lack of private space in their living quarters (dorms or homes). The fear that conversations might have been overheard by family members or roommates led students to withhold confidential information. This finding indicated that digital literacy must have also encompassed students' ability to manage their physical environment to support the security of their digital communications.

Concerns about cybersecurity were a major inhibiting factor. Given the prevalence of data breaches at educational institutions and reports of national cyberattacks, approximately 40–60% of respondents doubt whether campus counselling systems were truly secure. Students with strong digital security literacy were able to verify the credibility of the platforms they use. It made them feel better protected from the threat of screenshots or illegal session recordings, which ultimately improved the quality of the information they share with counsellors.

Table 3. Regression Results

Model	Regression Coefficient(β)	t-calculation	Sig. (p)	Conclusion
The effect of X to Y	0,542	12,453	0,000	Significant

Table 4. Results by Gender

Variable	Average Male	Average Female	p-value (t-test)
Self-Disclosure	2,98	3,84	0,002*

It was also found that double stigma (the fear of being perceived as crazy or lacking in faith) still loomed over Gen Z students, even though digital access became more anonymous. Low functional digital literacy often triggered cognitive anxiety (technostress), which exacerbated this sense of shame. Students who struggle with collaborative platforms tended to become passive and provide only brief answers. It made counsellors difficult to probe or delve into issues accurately during sessions.

B. Discussion

This study was based on a robust dataset, involving 2,134 active college students who collectively represented Generation Z. The large sample size lent high validity to the phenomenon under study, given that all participants were active users of online counselling services. Given the respondents' profiles—who were already accustomed to interacting with technology—this study successfully captured an objective reality regarding how today's students process mental health support through digital media. In terms of gender distribution, female student participation reached 64.3% (1,373 individuals), far exceeding male participation at 35.7% (761 individuals). The dominance of women in this study provided an initial indication that there were differences in comfort levels or access needs between genders when seeking psychological help online. The high rate of female participation also reflected a global trend in which women tended to be more proactive in addressing mental health issues compared to men. (Mulya et al., 2026; Rahman Nur et al., 2023)

All respondents were Digital Natives born between 1997 and 2012, a generation that had never known a world without the internet. This confirmed that for today's students, cyberspace was no longer merely a supporting tool, but rather their primary environment for interaction. The high reliance on digital platforms for both academic and personal matters formed the foundation for why online counselling services are a highly relevant and urgent option to develop within the higher education environment (Data, 2025). Research findings indicated an average Digital Literacy score of 3.72 (High Category). However, this figure hid an anomaly worth discussing. If we broke down the pillars, there was a wide gap between operational skills and security awareness. Students may have appeared highly proficient on the surface, yet remain vulnerable in their substantive understanding of the security of their own personal data in the digital public sphere. The Digital Skills pillar recorded the highest score of 4.45 (Very High) (Suherman et al., 2026).

This data demonstrated that students possessed exceptional technical skills in operating devices, applications, and navigating the interface of online counselling services. They had no difficulty downloading the app, registering, or using basic communication features. This proficiency should have served as a major asset for the smooth operation of the counselling process. Unfortunately, this technical proficiency stood in stark contrast to Digital Safety, which scored only 2.85 (Low/Moderate). Students were proficient in using the application, but did not understand how their data was encrypted or stored. This low score on the security aspect acted as a "black hole" that hinders trust. Lack of knowledge about data protection protocols made students feel vulnerable, even though they were technically very adept at using the platform. Meanwhile, Digital Ethics stands at 3.86 (High). This indicated that students actually possessed strong moral awareness regarding how they should have communicated in digital

spaces (Sholikhin & Muniroh, 2023; Suherman et al., 2026). They understood the limits of assertiveness and respected for others' privacy. However, good ethics without being supported by adequate security literacy still made them hesitant to be fully open due to fear of external threats they could not control.

The Self-Disclosure variable showed an average score of 3.41 (Moderate Category). This figure indicated that the process of catharsis or problem disclosure in online counselling had not yet reached an ideal level. Students tended to still "hold back" and filtered the information they shared with counsellors. There was a psychological barrier that had not yet fully broken down, even though the counselling process was conducted online—a setting often perceived as more anonymous. This lack of openness was significantly influenced by communication medium preferences (Haidar, 2024; Morais et al., 2015). Data showed a score of 4.20 (High) for openness via text-based media (chat). Students feel more comfortable and had full control over the narrative they conveyed via text. Through chat, they could pause to think, edit messages, and minimize immediate emotional pressure, which allowed the flow of information from the student's side to proceed more smoothly. Conversely, openness during video calls was at a level of 2.62 (Low). This phenomenon was quite unique because, theoretically, video calls approximated face-to-face interaction, which should have enhanced empathy. However, for Gen Z students in Indonesia, direct virtual eye contact was actually perceived as intimidating. The perception of being visually monitored through the screen made them feel uncomfortable, so they tended to become stiff and less expressive during video sessions.

Digital literacy was not merely a supplementary factor, but a determining one. The greater students' understanding of how the digital world works (especially regarding security), the more willing they were to open up. Technical knowledge transformed into a psychological strength that reduced the fear of judgment or privacy breaches. Students who had a good understanding of the concept of end-to-end encryption tended to be more transparent in sharing their traumas or other sensitive issues (Sholikhin & Muniroh, 2023; Suherman et al., 2026). They felt they had a "*legal and technical umbrella*" protecting their secrets. This knowledge provided a sense of calm that allowed them to enter a deeper stage of social rapport with counsellors, compared to students who merely knew how to press the send button. Conversely, low digital literacy triggered self-censorship. Students concerned about system security would automatically filter out important facts. They may have only shared the surface-level details of their issues out of fear that their conversation data could be accessed by system administrators or university officials. As a result, counselling interventions became inaccurate because the data received by the counsellor were data that had already been "*manipulated*" for the student's own safety.

Male students scored significantly lower on openness (2.98) than female students (3.84). This stemmed from the social construction of masculinity in Indonesia, which still viewed it as taboo for men to appear vulnerable. For male students, expressing emotions on camera often felt at odds with their self-image. It led them to rely more heavily on defence mechanisms during sessions. Sociocultural barriers such as the "*ewuh pakewuh*" (*shyness*) culture remained deeply ingrained, particularly among students from Javanese cultural backgrounds (Br Bangun et al., 2024). They often felt uncomfortable or afraid of burdening the counsellor with issues they perceived as "*serious*." This sense of *shyness* carried over into the digital space, where students felt they had to maintain harmony and they did not want to appear too demanding, so the communication that took place remained at a superficial, formal level.

The "*Privacy Paradox*" phenomenon had also come under the spotlight. Students were very vocal on social media (Instagram/X) about mental health issues in general, yet became highly defensive during formal counselling sessions. The inability to distinguish between public "*venting*" and professional counselling indicated a distortion in digital ethics literacy. They perceived social media as a free space without formal consequences, while counselling was viewed as campus bureaucracy that

could potentially impact their academic careers. Situational factors also could not be ignored. Many students in big cities lived in communal settings (dorms or family homes) with very limited private space. The fear that their voices might have been heard by roommates or parents became a very real physical barrier. This demonstrated that digital literacy should have also included the ability to manage the physical environment so that online counselling sessions truly became a safe space isolated from external disturbances.

Concerns about cybersecurity, which ranged from 40% to 60%, served as a stark warning to educational institutions (Perkasa & Setiawan, 2024). Today's students were highly critical of their digital footprints. Without transparency, written security guarantees from the counselling unit, students' level of self-disclosure will never reach its optimal point. Trust in the institution was a crucial mediating variable in linking digital literacy to counselling success. The emergence of technostress or cognitive anxiety resulting from technological difficulties (especially regarding functional aspects) often caused students to lose their momentum for catharsis. When technical issues arose, students with lower digital proficiency felt frustrated and lost focus on their primary concerns (Data, 2025). This resulted in counsellors needing more time (3–5 sessions) just to establish a comfortable rapport, time that should have been allocated for in-depth intervention. The presence of a double stigma (fear of being seen as crazy or lacking faith) in Indonesia remained a daunting shadow for Gen Z students. Although technology offered anonymity, the fear of social stigma still seeps into the digital space through anxiety about identity leaks. Therefore, the digital literacy taught to students must have not been merely technical but must have also included digital mental health literacy to systematically dismantle this stigma.

Overall, the findings of this study confirmed that to improve the effectiveness of online counselling, universities should have not focused solely on providing sophisticated applications. The primary focus must have shifted to strengthening students' digital security literacy. Only by feeling truly safe and understanding their digital rights would students be willing to lower their defences and engage in honest self-disclosure—a key prerequisite for the success of any therapeutic process.

5. Conclusion

This study concluded that digital literacy had a significant and positive influence on Generation Z students' self-disclosure during online counselling sessions. Although students possessed very high technical proficiency in operating digital devices, there was a critical gap in the area of digital safety, which led to the emergence of the "*privacy paradox*" and self-censorship. Distrust in platform security and concerns about data leaks were the main barriers that made students tend to be more closed off, especially on video call platforms, which were perceived as more intimidating compared to text-based platforms (*chat*).

Beyond technical factors, self-disclosure was also deeply influenced by gender, cultural, and situational dimensions. Male students exhibited lower levels of openness due to constructions of masculinity and the "*ewuh pakewuh*" cultural norm that inhibited emotional expression. They were all compounded by the challenge of limited private space in their living environments. Therefore, the effectiveness of online counselling in higher education could have not relied solely on sophisticated applications but must have been integrated with efforts to strengthen students' digital security and privacy literacy to break down psychological barriers and create a safe and trustworthy therapeutic space.

References

- Br Bangun, S. M., Peristianto, S. V., & Wulandari, N. Y. (2024). Dinamika Budaya Ewuh Pakewuh Pada Kesehatan Mental Orang Jawa. *Jurnal Psikologi Malahayati*, 7(1), 1–15. <https://doi.org/10.33024/jpm.v7i1.18507>

- Data, T. K. S. dan P. (2025). *Membangun Budaya Aman di Dunia Digital: Security Awareness 2025 untuk Guru dan Siswa SMA/SMK di Kota Semarang*. Kemendikdasmen. <https://pusdatin.kemendikdasmen.go.id/berita/membangun-budaya-aman-di-dunia-digital-security-awareness-2025-untuk-guru-dan-siswa-smasmk-di-kota-semarang>
- Gandhawangi, S. (2021). *Layanan Telemedik Meningkatkan Selama Pandemi Covid-19*. Kompas.Id. <https://www.kompas.id/artikel/halodoc-layanan-telemedik-meningkat-selama-pandemi>
- Gloria. (2022). *Hasil Survei I-NAMHS: Satu dari Tiga Remaja Indonesia Memiliki Masalah Kesehatan Mental*. Ugm.Ac.Id. <https://ugm.ac.id/id/berita/23086-hasil-survei-i-namhs-satu-dari-tiga-remaja-indonesia-memiliki-masalah-kesehatan-mental/>
- Haidar, A. Z. (2024). The Role of Visual Design in Building Brand Image to Increase Consumer Loyalty in the Digital Era. *Side: Scientific Development Journal*, 1(2), 49–53. <https://ojs.arbain.co.id/index.php/side/article/view/58>
- Haryanto, A. T. (2024). *APJII Jumlah Pengguna Internet Indonesia Tembus 221 Juta Orang*. APJII. <https://apjii.or.id/berita/d/apjii-jumlah-pengguna-internet-indonesia-tembus-221-juta-orang>
- Indonesia.go.id. (2022). *Literasi Digital Masyarakat Indonesia Membaik*. Komdigi.Go.Id. <https://www.komdigi.go.id/berita/artikel/detail/literasi-digital-masyarakat-indonesia-membaik>
- Ismail, I. (2025). Tingkat Stres, Sumber Stres, dan Strategi Koping Mahasiswa: Sebuah Analisis Profil di Lingkungan Perguruan Tinggi. *Jurnal Psikologi Talenta Mahasiswa*, 5(2).
- Jain, L., Velez, L., Karlapati, S., Forand, M., Kannali, R., Yousaf, R. A., Ahmed, R., Sarfraz, Z., Sutter, P. A., Tallo, C. A., & Ahmed, S. (2025). Exploring Problematic TikTok Use and Mental Health Issues: A Systematic Review of Empirical Studies. *Journal of Primary Care and Community Health*, 16. <https://doi.org/10.1177/21501319251327303>
- Morais, C., Miranda, L., & Alves, P. (2015). The use of digital educational resources in the support to learning in higher education. *EAI Endorsed Transactions on E-Learning*, 2(5), e5. <https://doi.org/10.4108/el.2.5.e5>
- Mulya, Y., Putriyani, D., & Ardelia, V. (2026). Hubungan Online Disinhibition Effect dengan Self-Disclosure Generasi Z di Media Sosial X. *Character : Jurnal Penelitian Psikologi*, 13(01), 28–40.
- Murima, W. H., Prayogi, A. R. Y., Rahvy, A. P., Djunaedi, N., & Dhamanti, I. (2022). Telemedicine use in health facility during covid-19 pandemic: Literature review. *Indonesian Journal of Health Administration*, 10(2), 251–260. <https://doi.org/10.20473/jaki.v10i2.2022.251-260>
- Pebriani, S., Karim, D., Tri Utami, G., & Studi Keperawatan Fakultas Keperawatan, P. (2020). Hubungan Kecemasan Dengan Efikasi Diri Pada Mahasiswa Baru Fakultas Keperawatan Universitas Riau. *JOM FKP*, 7(2), 72–78.
- Perkasa, D. A., & Setiawan, B. (2024). Measuring Information Security Awareness Level of High School Students. *MALCOM: Indonesian Journal of Machine Learning and Computer Science*, 4(4), 1301–1308. <https://doi.org/10.57152/malcom.v4i4.1461>
- Prasetyoaji, A., Sugiarti, D., Prasetya, D. B., & Suryanti, D. (2026). PENERAPAN KONSELING KELOMPOK UNTUK MENINGKATKAN KETERAMPILAN SOSIAL EMOSIONAL PADA REMAJA AWAL. *Jurnal Mahasiswa BK An-Nur : Berbeda, Bermakna, Mulia*, 12(1), 257–266.
- Putri, A. K., & Prasetyoaji, A. (2025). PENGARUH TUNTUTAN AKADEMIK DAN BEBAN KERJA TERHADAP KESEHATAN MENTAL MAHASISWA PRODI BIMBINGAN DAN KONSELING UNIVERSITAS TEKNOLOGI YOGYAKARTA. *Jurnal Mahasiswa BK An-Nur : Berbeda, Bermakna, Mulia*, 11(2), 28–40. <https://doi.org/10.31602/jmbkan.v11i2.15056>
- Rahman Nur, D., Widodo, P., & Putro, N. H. P. S. (2023). Digital Natives Generation Enjoyment Using Online Resources as Virtual Learning Environment in Learning English Speaking. *International Journal of Language Education*, 7(4), 602–614. <https://doi.org/10.26858/ijole.v7i4.44573>
- Saaduddin, N. S. (2024). Sinergitas Kompetensi Dosen Terhadap Pembentukan Self-Disclosure Mahasiswa Tingkat Awal. *Jurnal Edu Research Indonesian Institute For Corporate Learning And Studies (IICLS)*, 4(4), 243.
- Santos, M., & Faure, A. (2018). Affordance is Power: Contradictions Between Communicational and Technical Dimensions of WhatsApp's End-to-End Encryption. *Social Media and Society*, 4(3). <https://doi.org/10.1177/2056305118795876>
- Setyasri, A. S., Putri, G. A., & Malik, C. (2025). Praktik Telekonseling Berbasis Teknologi Digital : Studi Kualitatif Layanan Kesehatan Mental di Indonesia. *Jurnal Bimbingan Konseling Islam Dan Psikosufistik*, 1(1), 54–64.
- Sholikhin, S., & Muniroh, S. M. (2023). Counseling Empathy in the Digital Era: Building Emotional Connections with Elementary School Students. *Journal of Digital Learning and Education*, 3(3), 226–232. <https://doi.org/10.52562/jdle.v3i3.877>
- Siregar, A. A. H., Apriliani, R. R., & Nurhasanah, N. (2025). Analisis Korelasi Statistik Antara Populasi Jumlah Penduduk dan Pengguna Internet Di Indonesia. *RIGGS: Journal of Artificial Intelligence and Digital Business*, 4(3), 4776–4781. <https://doi.org/10.31004/riggs.v4i3.2684>

- Siregar, R., & Sarah, Y. (2025). Interpersonal Communication between Children and Parents: A Study of Gender, Education, and Region Dimensions and Its Contribution to Guidance and Counseling. *G-Couns: Jurnal Bimbingan Dan Konseling*, 10(01), 281–301. <https://doi.org/10.31316/g-couns.v10i01.8438>
- Srijundaree, P., Yurayat, P., & Nipanan, P. (2024). Factors Influencing Acceptance and Use of Online Counseling Technology among Thai Psychologists and Mental Health Counsellors. *Islamic Guidance and Counseling Journal*, 7(1), 1–20. <https://doi.org/10.25217/0020247451200>
- Suherman, M. M., Alawiyah, T., & Zakiah, L. N. (2026). Transformation of Student Interpersonal Communication Through Digital Media in Higher Education. *G-COUNS: Jurnal Bimbingan Dan Konseling*, 10(01), 487–499. <https://doi.org/10.31316/g-couns.v10i01.8343>
- Sumbodo, Yama. p, Marzuki, Yudhantara, M., & Widiastuti. (2024). Metode Penelitian: Panduan Lengkap untuk Penelitian Kuantatif, Kualitatif dan Campuran. In *Metode Penelitian Kualitatif* (Vol. 1).
- Widyawati. (2021). *Kemenkes Beberkan Masalah Permasalahan Kesehatan Jiwa di Indonesia*. Kemenkes. <https://kemkes.go.id/id/kemenkes-beberkan-masalah-permasalahan-kesehatan-jiwa-di-indonesia>
- Zulkifli, H. (2026). Hubungan Antara Kesadaran Privasi dan Perilaku Aman Mahasiswa di Media Sosial. *Modem : Jurnal Informatika Dan Sains Teknologi*, 4(1), 58–64. <https://doi.org/10.62951/modem.v4i1.742>