



Telegram Chatbot-Based Counseling Services: A Quantitative Approach for College Students

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Abstract

The increasing use of chatbots in higher education has created new opportunities to support student services, including counseling. However, the practical implementation of Telegram chatbots for student counseling, particularly within Islamic higher education institutions in Indonesia, remains limited. This study examines students' use of Telegram chatbots and their relationship with student counseling services. A quantitative cross-sectional survey design was employed, involving 139 students who had previously used Telegram chatbots. Data were collected using two Likert-scale questionnaires (each comprising 15 items) to measure chatbot usage and counseling services. Both instruments demonstrated excellent internal consistency (Cronbach's α values of 0.943 and 0.971, respectively). Descriptive statistical analysis and simple linear regression were conducted to examine the influence between variables. The results indicate that students rated both Telegram chatbot usage ($M = 3.72$) and counseling services ($M = 3.87$) highly. Regression analysis revealed a significant positive effect of chatbot usage on counseling service scores ($R^2 = 0.508$; $p < 0.001$), indicating that chatbot usage explains 50.8% of the variance in counseling service scores. The novelty of this study lies in its quantitative examination of Telegram chatbot-based counseling services within the context of Indonesian Islamic higher education. Telegram chatbots should be regarded as complementary communication and service-navigation tools rather than substitutes for professional counseling. Telegram chatbots have proven capable of facilitating access and responsiveness in digital counseling.

How to Cite this Article

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INTRODUCTION

Rapid technological advancements have significantly transformed the higher education landscape by enabling digital systems that support various academic, administrative, and student services. Among these innovations, chatbots have garnered considerable attention due to their ability to enable higher education institutions to provide rapid, interactive, and accessible support to students even outside conventional working hours. Recent studies indicate that artificial intelligence (AI)-based chatbots can enhance information delivery, streamline administrative processes, boost student engagement, and reduce institutional workloads (Okonkwo & Ade-Ibijola, 2021). As universities embrace digital transformation, chatbot technology is increasingly viewed as a complementary tool that supports various aspects of student services while simultaneously improving operational efficiency. These findings reflect the outcomes associated with digital counseling services.

Digital channels are used by universities for learning management, administrative communication, and student assistance, among others. In counseling services, the change is significant because students typically require information quickly and discreetly; they require more flexible communication before they can meet a counselor directly. In addition to its technical applications, this is not just an academic problem for Islamic higher education institutions, which include college students. Counseling services are supposed to help students in the academic, psychological, social, and spiritual realms. In this light, Telegram chatbots can be used to provide practical assistance to students to access counseling-related information, learn about the service procedures, and find assistance in a much easier manner.

Student counseling occupies a privileged position in higher education, where it assists students in coping with academic pressure, emotional distress, social adjustment, and personal decision-making. The feeling of emotional exhaustion also often causes effects such as laziness, loss of motivation or desire to do something, and delays in completing tasks, which can result in tasks being delayed or not completed on time (Putri, 2021). Academic development is also tied to student well-being. Loneliness and school connectedness are related to academic self-efficacy, and emotional and social experiences among students should be examined in terms of educational quality (Sani et al., 2026). That is why counseling services should be viewed beyond just the realm of remedial support for students with serious problems. Moreover, they are preventive and developmental services that contribute to resilience, confidence, and adjustment during university life.

Nevertheless, in practice, even when students do need help, they often don't seek out counseling services. The counselor uses various stages and methods to help the client achieve a mindful state that is full of various aspects within it, namely self-awareness of the feelings and thoughts that are present, self-awareness of one's abilities and shortcomings, and self-awareness (Lestari, 2024). Limited service hours, uncertainty

about procedures, lack of information, and reluctance to speak directly with a counselor may discourage students from accessing available support. A Telegram chatbot can reduce part of this distance by providing a familiar entry point. Through automated responses, the chatbot can share service schedules, explain appointment procedures, answer frequently asked questions, and direct students to appropriate counseling channels. Such functions are modest, but they may be useful when students need initial guidance before engaging in direct counseling.

Existing literature has examined the implementation of chatbots across various educational contexts. Most prior studies have focused on academic advising, administrative services, learning support, intelligent tutoring systems, and the automation of frequently asked questions (FAQs). Educational chatbots have been reported to enhance students' learning experiences, provide personalized academic guidance, and facilitate access to institutional information (Okonkwo & Ade-Ibijola, 2021). Despite these promising developments, few studies have specifically investigated the use of chatbots in university counseling services; yet, communication within these services involves sensitive personal issues, psychological well-being, and confidentiality requirements that differ significantly from routine administrative interactions (Wahyuningrum, Ghofur, et al., 2026).

Chatbots have been employed to answer student inquiries, provide academic reminders, assist with registration procedures, and direct students to appropriate university resources. These applications contribute to improved student satisfaction regarding service quality and institutional accessibility (Wahyuningrum, Humaidy, et al., 2026). However, counseling services present unique challenges, as students often require emotional support, privacy, and personalized guidance. Consequently, findings from the implementation of administrative chatbots cannot be directly generalized to the counseling context without further empirical research.

The use of Telegram chatbots in this study refers to how students evaluate accessibility, usefulness, responsiveness, comfort, security, and overall benefit. These dimensions are close to the logic of technology acceptance, where usefulness and ease of use influence whether users are willing to accept a digital system. A multi-institutional study of AI-based chatbot acceptance emphasized that usefulness and ease of use remain important in explaining student acceptance (Espana et al., 2026). The behavioral and technical factors shape the adoption of ChatGPT in higher education (Jain et al., 2026). These studies suggest that students' evaluation of a digital tool is a key condition for its educational or service value.

Another important stream of research concerns digital counseling and online help-seeking behavior. Previous studies suggest that students increasingly prefer online communication channels when seeking psychological information because digital platforms offer greater anonymity, convenience, and flexibility than traditional face-to-face interactions (Gilbertson & Bowers, 2026). Online help-seeking may reduce

psychological barriers associated with stigma and encourage students to access counseling information at an earlier stage of psychological distress. Nevertheless, the effectiveness of technology-assisted counseling largely depends on students' trust in digital systems, ease of interaction, and confidence that their personal information will remain secure. (Ahmad et al., 2024) demonstrated that higher education users are using generative AI chatbots in different profiles, which are influenced by their experience, context, , and demographic characteristics. While largely limited to learning environments, these insights are pertinent because counseling services also rely on interaction, trust, accessibility, and user experience (Amgott & Renfroe, 2025).

For counseling services, chatbot technology is relevant because it can strengthen the first layer of service access. (Rafi, 2026) proposed an AI-supported educational framework in which conversational systems help students retrieve institutional knowledge. Although their work was not designed specifically for counseling, the idea of using conversational technology to connect students with institutional support can be adapted to student counseling services (Wahyuningrum & Hasanah, 2024). For College students, a Telegram chatbot may help students obtain service information, understand the steps for seeking counseling, and move from informal digital inquiry to direct counselor support when needed.

However, we cannot assume of the value of chatbot-based counseling support. Digital literacy, trust, prior exposure, and confidence may differ among students who use automated systems. (Aeni et al., 2025) noted that digital literacy and social factors influence access to higher education opportunities. (Karmakar et al., 2026) Also found that students' use of chatbots is shaped by exposure, and ethical concerns. These findings point to a practical concern: a chatbot may be available, but its contribution to counseling services depends on how students use it.

Although chatbot research has expanded considerably in recent years, several important gaps remain. First, existing studies predominantly examine chatbot implementation in academic administration, learning support, or intelligent tutoring systems, whereas empirical investigations of chatbot-assisted counseling services remain relatively limited. Second, previous studies have mainly focused on general higher education contexts in developed countries, leaving limited evidence on chatbot use in Indonesian universities, particularly within Islamic higher education institutions that integrate educational, psychological, and religious values into student counseling services. Third, previous investigations have largely examined user acceptance or technological performance without specifically exploring how students' perceptions of chatbot utilization relate to their perception of counseling service quality. These limitations indicate the need for additional empirical evidence that reflects diverse institutional and cultural contexts.

This study makes three key contributions to the existing literature. First, theoretically, it extends technology acceptance research into the relatively under-

researched area of digital counseling support in Islamic higher education. Second, empirically, it provides quantitative evidence on Telegram chatbot use within an institutional and cultural context that has received limited academic attention. Third, from a practical perspective, the findings offer evidence-based insights for university counseling centers considering chatbots for service navigation, with the caveat that the study examines chatbot usage rather than objective counseling effectiveness or actual therapeutic outcomes.

For this reason, a quantitative regression analysis is appropriate to examine the problem, as it estimates how much students' use of Telegram chatbots predicts their use of counseling services. Regression is a common statistical technique in educational research for understanding relationships among academic, psychological, institutional, and technological variables, as shown in (Bosson-Amedenu et al., 2026), (Gupta et al., 2026), and (Sani et al., 2026). However, researchers must interpret regression result carefully. (Ding, 2026) warns researchers to note that regression is a useful tool for demonstrating predictive associations; however, it cannot provide causal evidence without a stronger research design.

Although chatbots are increasingly used in higher education, few studies focus on learning, academic engagement, medical education, or broader technology adoption (Humaidy et al., 2024). Studies on Telegram chatbots in student counseling services remain limited, especially in Islamic higher education institutions in Indonesia (Wahyuningrum & Aryani, 2026). This leaves a clear gap in Islamic guidance and counseling literature. To address this gap, this study examines the use of Telegram chatbots in counseling services at several Islamic higher education institutions in Indonesia. Rather than evaluating therapeutic effectiveness or counseling outcomes, the study focuses on the chatbot's role as a medium for information and service navigation, as well as its impact on counseling services. This distinction is crucial because the chatbot under study serves as an initial access point, providing information about counseling, facilitating communication, and helping students navigate available services rather than delivering psychological interventions independently.

Thus, the current study examines college students' use of Telegram chatbots and student counseling services. Specifically, it assesses students' use of Telegram chatbots and counseling services, and determines whether chatbot use significantly predicts students' use of counseling services. In theory, the study contributes to the digital counseling discourse in Islamic higher education. In practice, it provides evidence to help shape counseling services that are more accessible, more responsive, and better integrated with students' digital communication habits.

METHOD

This research uses a quantitative design that is both associative and predictive (Wahyuningrum, 2020). The objective is to determine whether one variable predicts

another. Because both variables were measured using numerical survey data, this design was selected to capture their relationship (Ulfah et al., 2022). The independent variable is students' use of Telegram chatbots (X), encompassing accessibility, usability, responsiveness, convenience, security, and benefits. The dependent variable is student counseling services (Y), assessed based on service quality, accessibility, responsiveness, usability, and student support. Each scale consists of 15 items rated on a five-point Likert scale. The study was conducted at the Guidance and Counseling Study Program of an Islamic higher education institution in Indonesia, where a Telegram chatbot had been introduced as a digital communication tool to facilitate access to counseling-related information. The chatbot was designed to provide students with information regarding counseling services, consultation procedures, appointment mechanisms, service schedules, and general guidance resources. It functioned primarily as an information and service-navigation platform rather than an autonomous counseling system. Qualified counselors continued to deliver professional counseling services directly, while the chatbot served as a complementary communication channel that helped students access available counseling resources more efficiently.

The survey was distributed online to students at several Islamic higher education institutions: UIN Madura, UIN Syekh Ali Hasan Padang, UIN Sumatera Utara, UIN Sultanah Nahrasiyah Lhokseumawe, and IAIN Fattahul Muluk. After reviewing responses, we identified 139 valid respondents for analysis. This study rigorously evaluates quantitative survey data and does not access, store, or analyze the textual content of counseling conversations between students and the chatbot. As the research relies entirely on anonymous, aggregated survey metrics, formal institutional ethical approval was not required; nevertheless, all participants provided explicit informed consent before completing the survey, acknowledging that their responses would be used solely for research purposes.

The data were coded and analyzed using descriptive and inferential statistics. Descriptive statistics summarized the achievement levels for each variable (Wahyuningrum, Ghofur, et al., 2026). We assessed internal consistency using Cronbach's alpha. The researchers verified assumptions of linearity, residual normality, homoscedasticity, and residual independence before conducting the regression analysis. Simple linear regression was then implemented to test whether use of Telegram chatbots significantly predicted student counseling services. The level of significance was set at $p < 0.05$. The coefficient of determination (R-Square) was calculated to determine the proportion of variance in student counseling services attributed to chatbot use. These ethical considerations were ensured through voluntary participation, confidentiality of respondents' identities, and the use of data exclusively for academic purposes.

RESULTS AND DISCUSSION

Respondent Profile

This study analyzed 139 valid responses. Respondents represented different genders, semesters, faculties, and study programs, although the sample was heavily

concentrated in the 6th Semester. Most respondents also reported previous experience using a Telegram chatbot.

Table 1. Respondent Profile

Category	Group	Frequency
Gender	Female	100
	Male	39
Semester	2 nd Semester	11
	4 th Semester	11
	6 th Semester	117

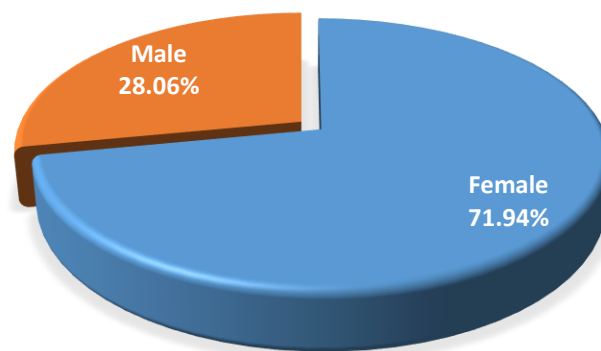


Figure 1. Respondent Profile by Gender

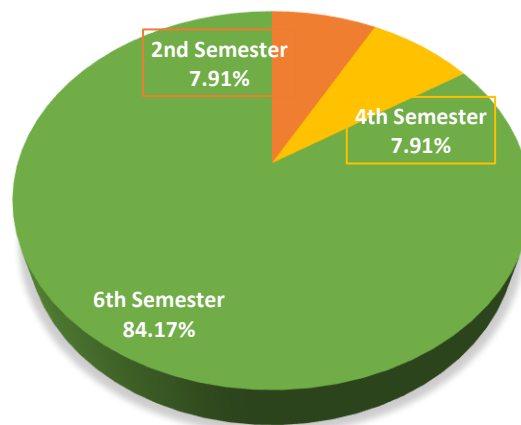


Figure 2. Respondent Profile by Semester

The respondent profile shows that female students dominated the sample in the 6th Semester. Consider this composition when interpreting the findings, as the results mainly reflect this group's views rather than the college's entire student population.

Descriptive Statistics and Reliability

Descriptive statistics answered the first and second research questions. The first variable, use of Telegram chatbots, was measured with 15 items. The second variable,

student counseling services, was also measured with 15 items. Both variables used a five-point Likert scale.

Table 2. Descriptive Statistics and Reliability

Variable	Number of Items	Mean	SD	Minimum	Maximum	Cronbach's Alpha	Interpretation
Use of Telegram chatbots	15	3.72	0.60	1.00	4.80	0.943	High, highly reliable
Student counseling services	15	3.87	0.66	1.00	5.00	0.971	High, highly reliable

The mean score for use of Telegram chatbots was 3.72, which indicates a high level of student satisfaction. The mean score for student counseling services was 3.87, also in the high category. Reliability testing produced Cronbach's alpha values of 0.943 and 0.971. These values indicate very strong internal consistency for both scales.

Level of Each Variable

To make the descriptive findings easier to interpret, we grouped the mean scores into five categories: very low, low, moderate, high, and very high.

Table 3. Category Distribution of Research Variables

Variable	Category	Frequency	Percentage
use of Telegram chatbots	Very low	1	0.7%
	Low	7	5.0%
	Moderate	25	18.0%
	High	88	63.3%
	Very high	18	12.9%
Student counseling services	Very low	3	2.2%
	Low	4	2.9%
	Moderate	14	10.1%
	High	92	66.2%
	Very high	26	18.7%

Most respondents placed both variables in the high category. In other words, students generally regarded Telegram chatbots as useful and accessible, and they also evaluated counseling services as helpful and supportive. This pattern suggests that students' experience with digital access may relate to their perceptions of counseling service quality.

Assumption Testing

We examined several assumptions before interpreting the regression model. The tests included linearity, residual normality, homoscedasticity, and residual independence. The assumption tests showed that the linear specification was acceptable and that residual independence was within an acceptable range. However, the residuals were normally distributed, and heteroscedasticity was indicated. For the Shapiro–Wilk test, SPSS reports $p = 0.200$ as the largest available significance value, indicating $p \geq 0.200$. For this reason, we interpreted the regression coefficients cautiously and reported robust standard errors to strengthen the analysis.

Table 4. Regression Assumption Testing

Assumption	Test	Result	Interpretation
Linearity	Ramsey RESET	$F = 0.262, p = 0.609$	Linear model specification is acceptable
Normality of residuals	Shapiro-Wilk	$W = 0.983, p = 0.200$	Residuals are normally distributed
Homoscedasticity	Breusch-Pagan	$\chi^2 = 18.874, p < 0.001$	Heteroscedasticity is indicated
Independence of residuals	Durbin-Watson	1.792	Residual independence is acceptable

Correlation Analysis

We conducted a person correlation analysis to assess the association between Telegram chatbot use and student counseling services.

Table 5. Correlation between Variables

Variables	Pearson r	p-value	Interpretation
The use of Telegram chatbots and student counseling services	0.713	$p < 0.001$	Strong positive relationship

The correlation coefficient was 0.713, with a p -value < 0.001 . This result indicates a strong, positive, and statistically significant relationship. Students who rated Telegram chatbot use more positively also tended to rate student counseling services more positively.

Regression Analysis

We conducted a simple linear regression to examine whether use predicted student counseling services use.

Table 6. Robust Linear Regression Estimates (HC3 Robust Standard Errors)

Model	R	R Square	Adjusted R Square	Standard Error of Estimate	F	p-value
use of Telegram chatbots → Student counseling services	0.713	0.508	0.505	0.462	141.625	$p < 0.001$

Simple linear regression indicates a statistically significant positive relationship between Telegram chatbot use and student counseling service use ($R = 0.713$, $R^2 = 0.508$, Adjusted $R^2 = 0.505$, $F(1,137) = 141.625$, $p < 0.001$). The model explains 50.8% of the variance in counseling service scores. We estimated regression coefficients using ordinary least squares (OLS), and calculated statistical inference (standard errors, t -values, confidence intervals, and p -values) using heteroskedasticity-consistent (HC3) robust standard errors.

Table 7. Regression Coefficients

Predictor	B	Robust SE	t	p-value	95% CI
Constant	0.960	0.464	2.069	0.040	0.042 to 1.877
use of Telegram chatbots	0.784	0.117	6.676	p < 0.001	0.552 to 1.016

The regression equation is:

$$\hat{Y} = 0.960 + 0.784X \quad (1)$$

The regression coefficient indicates that a one-point increase in Telegram chatbot use was associated with a 0.784-point increase in student counseling service scores. The predictor remained statistically significant after applying robust standard errors. Thus, the use of Telegram chatbots is significantly associated with counseling service scores in this sample.

Regression Graph

Figure 3 presents the relationship between perceived use of Telegram chatbots and student counseling services. The scatter plot shows a positive linear pattern, indicating that higher perceived use of Telegram chatbots is associated with more positive evaluations of student counseling services.

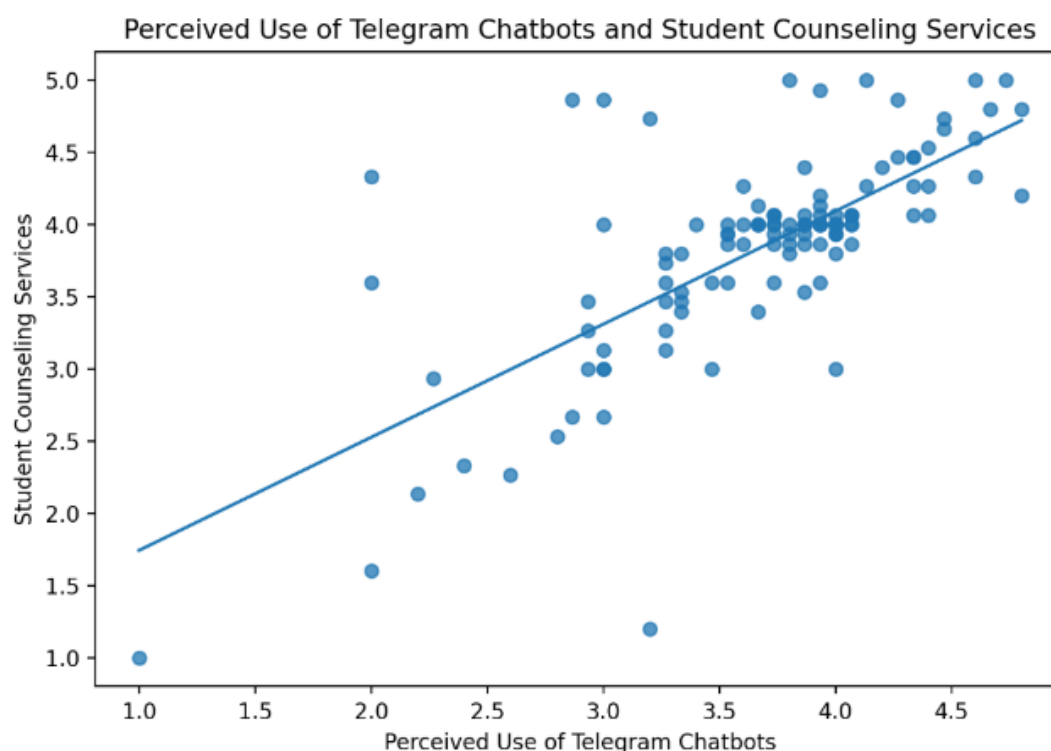


Figure 3. Scatter Plot of Perceived Use of Telegram Chatbots and Student Counseling Services

Figure 4 presents the residuals versus fitted values for the regression model. The residual plot serves as an additional diagnostic tool by showing the distribution of residuals around the zero line.

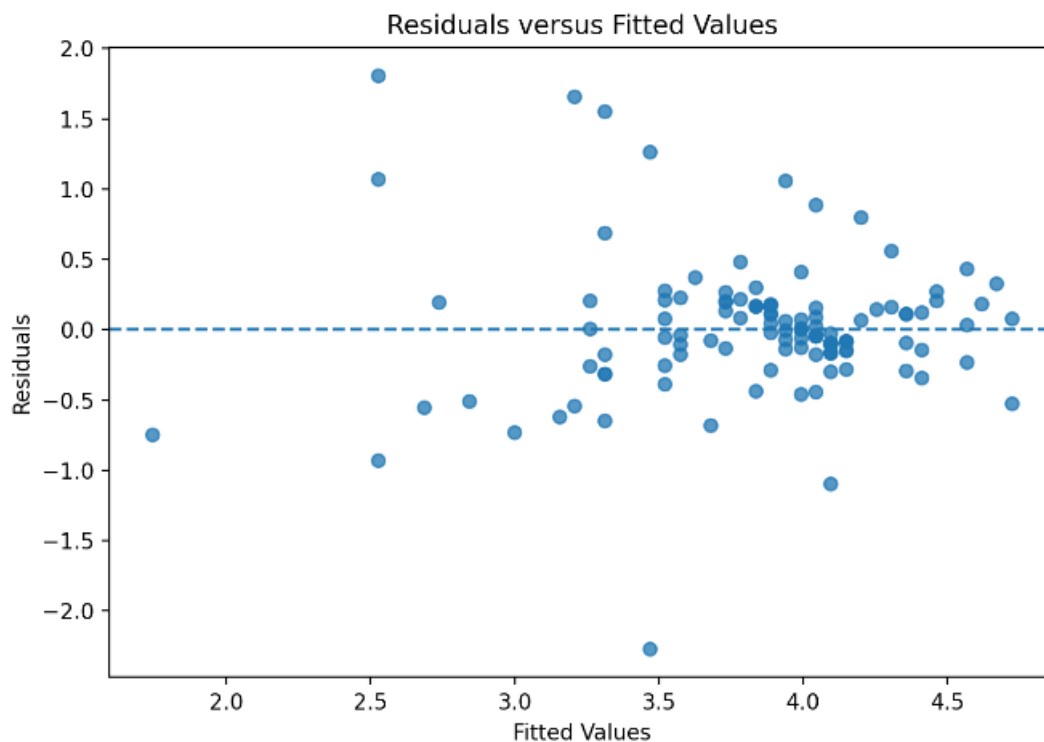


Figure 4. Residuals versus Fitted Values for the Regression Model

The results answer the research questions in three ways. First, college students used Telegram chatbots frequently. Second, students also used counseling services frequently. Third, Telegram chatbot use significantly predicted students' use of counseling services, with the model explaining 50.8% of the variance.

Overall, the findings suggest that students who perceive Telegram chatbots as accessible, useful, responsive, and comfortable tend to evaluate counseling services more positively. Because the study used cross-sectional survey data, interpret this finding as a predictive association rather as evidence of a direct causal effect.

Discussion

The results show that college students generally used Telegram chatbots frequently. In other words, students considered the chatbot accessible, useful, responsive, and relevant to counseling-related concerns. This finding aligns with higher education findings on digital technology uptake, where adoption depends on usefulness, ease of use, responsiveness, and confidence in the system (Ahmad et al., 2024); (Maulana, 2025).

This favorable opinion also aligns with the communication style of modern university students. Most students are already using messaging apps and expect campus services to be accessible digitally. In this context, a Telegram chatbot may serve as an initial access point for students who need counseling information, appointment guidance, or basic service navigation. The chatbot does not replace counselors, but it can reduce the first barrier between students and formal counseling services.

The second result indicated that student also rated counseling services highly. Students also reported that these services were helpful. Support programs benefit higher

ed because students face academic, emotional, social, and personal struggles. (Yundianto et al., 2023) report that loneliness and school connectedness are correlated with academic self-efficacy. This aligns with the idea that students' psychological and social experiences strongly influence their academic lives.

The main empirical finding is a significant positive relationship between chatbot use and counseling service use. By means of the Pearson correlation coefficient (0.713, we show that students who had higher levels of use of the Telegram chatbot tended to possess higher levels of use of counseling services too. This reinforces the notion that digital access can shape students' experience of a service, particularly when the tool is seen as helpful, familiar, and user-friendly.

The regression result further strengthens this interpretation. use of Telegram chatbots significantly predicted student counseling services and explained 50.8% of the variance. This value suggests that chatbots play a significant role in the data. If the chatbot is accessible, responsive, and beneficial, students are more likely to rate counseling services favorably.

These findings align with previous research showing that digital platforms can enhance student engagement and the institutional service experience when designed around user needs. (Riwukore et al., 2021) found that students' attitudes toward digital learning platforms depend on their effectiveness and engagement. (Zhou & Chiu, 2025) Moreover, (Yoshida et al., 2026) also pointed to the evolving contribution of AI-supported interaction in educational settings. While those studies did not focus on counseling, they support for the idea that digital systems can shape students' experiences of educational support.

In Islamic guidance and counseling, these implications matter. Counseling is grounded in care, responsibility, ethical awareness, and holistic support for students. A Telegram chatbot can support these purposes by providing appropriate services (service information, psychoeducational messages, initial guidance, and referrals to counselors). Because counseling involves empathy, ethical judgment, contextual understanding, and human sensitivity, it should not be used as an automated substitute for professional counseling.

The findings also indicate a need for digital literacy. Digital literacy and social factors influence access to higher education opportunities (Sergianni & Iodice, 2025). This matters because not every student can use or feel confident with chatbot-based services. Counseling units should therefore offer simple instructions, alternative access channels, and user-friendly chatbot designs to prevent unintentional exclusion of students with lower digital readiness.

There is also a need for ethical and technical readiness. Exposure and ethical implications shape the use of AI techniques and chatbots (Abdullah et al., 2025). These considerations become even more sensitive in counseling services, where students may speak openly about personal issues or their emotional state. When the matter calls for professional help, a chatbot should provide accurate information, avoid psychological diagnosis, protect confidentiality, and clearly direct students to human counselors.

Methodologically, this study proves the value of regression analyses in examining digital counseling services. Nevertheless, interpretation requires caution. Key point: regression can show predictive relationships but cannot prove causation (Ding, 2026). Because current study used survey data and measured both variables through surveys, the results should be understood as evidence of a meaningful predictive relationship, not proof that chatbot use alone improves counseling services.

The assumption testing supports this cautious interpretation. The model met the linearity and independence assumptions; however, it did not fully meet the assumptions of residual normality and homoscedasticity. Thus, we used robust standard errors when reporting the coefficients. The predictor remained significant, strengthening confidence in the relationship, but interpretation still requires caution.

The reliability findings further indicate internal consistency between the two instruments. Cronbach's alpha was 0.943 for Telegram chatbot use and 0.971 for student counseling services. These values indicate excellent reliability. However, very high alpha values may also suggest item overlap. Future research could investigate the scale structure through exploratory or confirmatory factor analysis to identify whether the dimensions are distinct.

The study's empirical findings further strengthen Islamic counseling and recommendations by integrating the effects of chatbot access and counseling with counseling services. Prior chatbot studies focus largely on learning, medical education, and technology acceptance. Thus, this study will highlight student counseling in the Islamic higher education context, and the development of digital innovation must preserve its interrelationships with ethical, human-centered, and spiritually sensitive service principles.

On the practice side, college students and similar institutions may use Telegram chatbots to innovate counseling services. The system can provide counseling schedules, service types, appointment procedures, FAQs, self-help resources, and referral pathways. For the chatbot to work, however, it has to be simple, accurate, confidential, and integrated with the counseling unit. It ought to also inform students that it offers initial support and service navigation, not full counseling intervention.

The study has limitations. Because the sample consisted largely of 6th Semester student participants, its generalizability to all College students is limited. Also, this study was based not on objectively recorded usage records or counseling outcomes, but on self-reports of s. Additionally, the model used one key predictor. Potential themes of future research could include digital literacy, counseling stigma, help-seeking attitudes, trust in technology, confidentiality, and satisfaction with counseling services.

In general, the use of Telegram chatbots is positively and significantly related to student counseling services among college students. The results also indicate that chatbot-based online platforms can support both access and responsiveness for students as long as they are deemed useful and reliable. However in Islamic counseling practice, chatbots should always work alongside professional guidance and not detract from confidentiality, ethical responsibility, empathy, and human-centered service principles.

CONCLUSION

This study examines the relationship between Telegram chatbot use and counseling services at several Islamic higher education institutions in Indonesia. The findings indicate that respondent rated both Telegram chatbot use and counseling services positively. Furthermore, statistical analysis revealed a significant positive relationship between the two variables, with Telegram chatbot usage accounting for approximately 50.8% of the variance in counseling service ratings. These findings suggest that students who view chatbot usage more positively also rate counseling services more favorably.

The study shows a link between students' chatbot use and their assessment of counseling services. Therefore, chatbot technology should be viewed as a complementary tool for communication and service navigation, helping students access counseling-related information rather than as a substitute for professional counseling practice.

This research contributes to the growing literature on AI-driven student support services by providing empirical evidence from Islamic higher education in Indonesia, where research on chatbot-based counseling remains limited. From a practical perspective, these findings offer preliminary insights for university counseling units considering implementing chatbot technology to facilitate information dissemination and enhance communication with students. However, successful implementation must be supported by appropriate institutional policies on privacy, confidentiality, transparency, ethical AI governance, and professional counselors supervision.

DECLARATION OF AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this manuscript, the authors used AI-assisted tools, including ChatGPT, Grammarly, and QuillBot, to support language editing and improve grammatical accuracy. The authors carefully reviewed and edited the output generated by these tools and take full responsibility for the manuscript's content.

AUTHOR CONTRIBUTION STATEMENT

S.R.W. contributed to conceptualization, research design, instrument development, data collection, statistical analysis, and initial manuscript preparation. A.G. contributed to the conceptual development, methodological refinement, interpretation of the findings, critical review, and revision of the manuscript. A.H.F. contributed to data collection, data organization, and manuscript preparation. All authors contributed to interpreting the results, reviewed the final version of the manuscript, and approved it for publication.

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DATA AVAILABILITY STATEMENT

The data supporting the findings of this study are not publicly available because they contain information collected from research participants and are subject to ethical and confidentiality considerations. However, the corresponding author may make anonymized data available upon reasonable request, subject to applicable ethical and institutional requirements.

DECLARATION OF INTERESTS

The authors declare that they have no financial, personal, professional, or other competing interests that could have influenced the research, analysis, interpretation of the findings, or preparation of this manuscript.

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