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Mental Health in the Digital Age: Comparing AI Counseling with Traditional Counseling among University Students

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Abstract
The field of mental health therapy is going through a transformation due to advancements in AI. Understanding how AI can be utilized in the provision of counseling services and how it can be compared to human counseling is very crucial for shaping the future of mental health-related treatments. This research aimed to conduct a comprehensive comparative analysis of human counseling and AI-based counseling services to unravel the differences in mental health outcomes among university students. Because university life is full of challenges for students, such as academic pressure, social adjustments, and personal issues that affect their academic career and lead to low mental health and well-being. For this purpose, students were divided into two groups: students receiving human counseling and students receiving AI-based counseling. Through a systematic sampling method, approximately 120 university students were selected who required mental health counseling as identified by their mental health counselors. Pre- and post-mental health assessments were conducted through 'WEMWBS'. The results indicate that human counseling is more effective in providing counseling services with greater efficiency in addressing mental health compared to AI-based counseling services.
The study concludes that the wider field of psychology is still in need of mental health counselors, and is not quite ready for the handover of counseling practices into the still-controversial hands of AI. These professionals and their skill sets will not become obsolete in the foreseeable future. A recommendation is given for an effective integrative approach by combining both counseling approaches, AI, and human counseling for comprehensive mental health services.

Keywords: Mental Health, Counseling, University Students, Artificial Intelligence (AI), Traditional Counseling, Counselors

Introduction

In modern years, progressions in Artificial Intelligence (AI) have opened new possibilities for delivering counseling information, raising the question of how these innovative approaches compare to traditional human counseling, particularly among university students. The mental well-being of students is much more important, as they face various personal, academic-related issues, and daily life-related social challenges during their academic journey. University counseling committees or centers play a critical role in providing mental health-related support and intervention for their students' mental health concerns. However, with the advancement of AI-driven platforms providing counseling-related information, there is a growing need to assess the efficacy of these technologies in addressing mental health issues of students and their satisfaction level with such interventions.
Mental health counseling is essential for overall mental health and well-being, aiming to provide individuals with support, guidance, and tools to address multiple issues such as emotional, behavioral, and psychological challenges (Rehman & Sajjad, 2024; Rehman et al., 2023; WHO, 2022). Traditionally, counseling is delivered by trained professionals, such as mental health counselors, psychologists, or other mental health professionals, who possess a deep understanding of psychology and various therapeutic techniques (Cénat et al., 2024). Rehman and Sajjad (2024) mentioned that these mental health counselors build strong therapeutic alliances through active listening, empathy, and personalized strategies. Additionally, they create a safe and secure environment for clients to share their feelings, thoughts, and fears.
Unfortunately, in our country, there is a limited availability of mental health counselors and related resources at university level to meet this growing demand. In this regard, among university students to fulfill their mental health needs, AI-based platforms for counseling purposes are now being used more commonly. Thus, the current research aims to conduct a comprehensive comparative analysis of human counseling and AI-based counseling services to unravel the differences in mental health outcomes among university students.

Research Gap

The integration of AI in mental health counseling holds significant potential, but there is a notable research gap in literature comparing AI-based counseling services to traditional human counseling in terms of mental health outcomes of students. Existing literature was mainly focused on the development and feasibility of AI services rather than their actual impact on students seeking counseling support.

Significance

The research significance lies in its potential to provide valuable insights into the effectiveness and impact of human counseling compared to AI for counseling services. The field of mental health therapy is going through a transformation due to advancements in AI. Understanding how AI can be utilized in the provision of counseling services and how it can be measured up against human counseling, is very crucial for shaping the future of mental health-related treatments. So, the current study intended to conduct a comprehensive comparative analysis of each counseling approach to address the research gap and highlight the strengths and weaknesses of each counseling approach. The research findings could propose crucial directions and guidance for shaping counseling practices to better meet the diverse needs of each student seeking support for mental health issues. Additionally, findings could inform mental health counselors, psychologists, mental health practitioners, stakeholders, policymakers, and technology developers about the potential role of AI in the domain of mental health counseling. The study sought to contribute evidence-based understanding that will ultimately enhance the overall accessibility, efficacy, and student-centered care in mental health counseling.

Literature Review

University life is full of challenges for students such as students face academic related pressure, social adjustments, financial concerns, and personal factors that effect on their academic career and lead to low mental health and well-being. At university level, access to mental health counseling services is crucial for supporting students' mental health and well-being during this transitional period. The mental health counselors within universities utilize their training to identify the root causes of students' issues that impact their academic life and support them in self-discovery and personal growth (see also Sajjad et al., 2023; Rehman et al., 2022; Gonzales, 2022; Voon et al., 2022). Furthermore, they develop tailored intervention plans to address individual needs (Banerjee et al., 2024), fostering trust and understanding in the therapeutic relationship (Tornero-Costa et al., 2023; D'Alfonso et al., 2020).

However, in recent years, advancements in AI have led to the emergence of AI-based platforms that provide counseling services as a potential alternative to mental health counselors (Balcombe & De Leo, 2022; Tong et al., 2022). AI-based counseling is a form of artificial intelligence developed to address the mental health needs and challenges of individual/s (D'Alfonso et al., 2020). These types of computer-generated programs are designed to simulate human-like conversations and interactions. Furthermore, these programs are basically machine learning algorithms to generate appropriate responses, have natural language processing models to be understood by users, and offer psychological or mental health support (see also Banerjee et al., 2024; Holohan, 2023; Tong et al., 2022; D'Alfonso et al., 2020; Card, 2018). AI-based technologies are typically programmed to apply evidence-based therapeutic techniques, which mean they draw on established psychological interventions that have shown effectiveness in helping individuals cope with their mental health challenges (Joyce et al., 2023; Balcombe & De Leo, 2022; Tong et al., 2022; D'Alfonso et al., 2020). These techniques may include, but are not limited to cognitive behavioral strategies, relaxation techniques, mindfulness exercises, and other psycho-education for their mental health conditions. Moreover, AI-based counseling services can be accessed through various platforms, such as mobile applications, websites, or integrated Chatbots, Google Bard, ChatGPT, automated self-help programs, etc. on messaging platforms, where they provide mental health support and guidance to individuals experiencing mental health challenges, such as anxiety, depression, emotional distress, or others (Banerjee et al., 2024; Bantilan et al., 2021; Denecke et al., 2021; Luxton et al., 2016). By engaging with users through voice-based or text-based interactions, AI can provide immediate responses to individuals' problems and guide appropriately with data-based information (Card, 2018; Fitzpatrick et al., 2017). Furthermore, AI can potentially overcome geographical barriers, enabling individuals from remote or underserved areas to access counseling services, rapidly available and accessible (Balcombe & De Leo, 2022; Tong et al., 2022).

On the other hand, there are notable limitations to AI. While these AI-driven technologies can provide general support and information, they lack the human qualities of empathy, intuition, and emotional connection (Fiske et al., 2019; Luxton et al., 2016). Many teams in ICT programming are working together to project a human-like machine that can feel humans' emotions and responses. Humans as mental health counselors can pick up on subtle cues and body language, which AI currently can't do (Fiske et al., 2019). This confines AI's ability to offer personalized counseling, particularly in complicated cases that entail an in-depth understanding of an individual's unique circumstances. Furthermore, AI-based counseling services are not armed to handle emergencies and cannot recognize the severity of certain mental health issues that entail immediate intervention (Balcombe & De Leo, 2022; Fiske et al., 2019). In contrast, mental health counselors are well trained to understand different circumstances of the client, assess him/her according to the need, and respond to emergencies or high-risk situations (Amjad et al., 2024), they provide a safe environment and ensure security, safety, & well-being of their clients/students (Gonzales, 2022; Tong et al., 2022).

The field of mental health counseling is constantly evolving, and the integration of AI has opened new possibilities for delivering counseling services for individuals. AI-based counseling platforms, such as Chatbots, chat-GPT, and other mobile apps, propose potential benefits such as increased accessibility, cost-effectiveness, and 24/7 availability for

individuals seeking support for mental health conditions. However, while AI-based counseling services show potential, its effectiveness and impact compared to traditional human counseling are still not fully understood, especially among university students. Students at the university level face numerous mental health related issues throughout their academic career and they require mental health counselors for their day-to-day stressors.

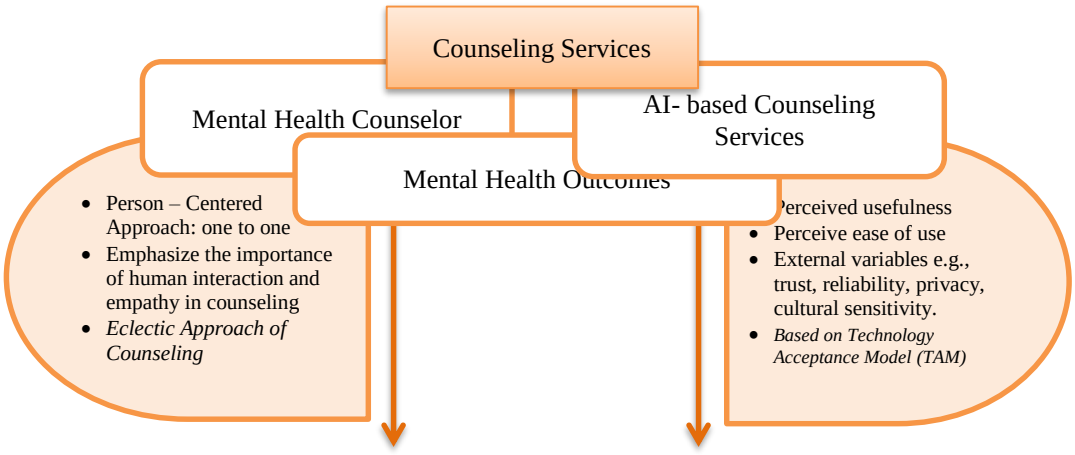
Theoretical Framework for the Study

The integration of AI in mental health counseling is welcomed as a drastic and revolutionary change, due to its accessibility and efficacy in mental health care. Figure 1 illustrates the key components of two widely favored counseling approaches, the 'Person-Centered Theory' and the 'Eclectic Approach', regarding the integration of AI in counseling using Technology Acceptance Model (TAM).

The study focuses on empathy, active listening, and unconditional positive regard in human counseling that are the main ingredients of person-centered theory. The TAM analyzed the acceptance and use of AI-based counseling by assessing perceived usefulness and ease of use in counseling. The eclectic approach highlights the combination of different elements from various therapeutic models to tailor interventions based on clients' and students' needs.

Figure 01

Theoretical Framework



Note. This theoretical framework highlights the key components of theories for human counseling (person-centered and elective approach) and AI-based counseling services (technology acceptance model). (Source: author).

Research Methodology

This comparative study used a quasi-experimental approach that examines the impact of an intervention **without random assignment** of participants to groups and establishes **cause-and-effect relationships**. In this study participants were divided into two groups — students receiving human counseling and students receiving AI-based counseling.

Underlying this study, Positivism research philosophy is employed which was used effectively for objective measurements, statistical analysis, utilizing structured methodologies, and appropriate for testing hypotheses and comparing outcomes quantitatively.

Sampling Technique

The study population included university students seeking mental health counseling for various issues with diverse backgrounds and demographics. The study population parameters were: 120 university students seeking mental health support or guidance (identified by mental health counselors, university psychologists, or other professionals) and universities in Karachi City.

For this study, six large universities were randomly selected that were located on or near University Road, Karachi. Subsequently, a systematic sampling method was used to select a sample of approximately 120 university students, comprising 20 students from each university, who were seeking mental health counseling for their various mental health issues as identified by mental health counselors or psychologists. For this purpose, 20 students from each university were selected systematically. Their mental health assessments were conducted through Warwick Edinburgh Mental Well-Being Scale (WEMWBS), to determine their eligibility to participate in this study. Students with good WEMWBS scores

and those students who have severe mental health-related issues or psychotic disorders were excluded. There were no age limits and gender criteria for selecting the sample.

To ensure systematic selection, a list of students from each university was obtained with the help of university counselors assessing students with mental health issues. Starting from a randomly chosen point in the list, every 7th student was selected. This selection was based on the total number needed from each university. Each university has more than 150 students seeking mental health support as described by university counselors. Accordingly, every 7th student was selected from the randomly ordered list to ensure systematic and unbiased selection and ensure that each student in the list has an equal chance of being selected (150/20=7.5 calculated intervals). Thus, 120 students were selected, 60 students for human counseling and 60 for AI-based counseling services. Table 1 illustrates the demographic characteristics of students with respect to both groups.

Table 1.
Demographic Characteristics of Students

		Human-based counseling			AI-based counseling		
		N (60)	**M**	**SD**	**N (60)**	**M**	**SD**
Gender	Male	30 (50%)	1.50	.504	22 (36.7%)	1.63	.486
	Female	30 (50%)			38 (63.3%)		
Age	18 – 21	40 (66.7%)	1.43	.745	36 (60%)	1.55	.832
	22 – 25	17 (28.3%)			19 (31.7%)		
	26 – 29	0			1 (1.7%)		
	30 or above	3 (5%)			4 (6.7%)		

The outcomes of the Shapiro-Wilk normality test conducted on a dataset comprising 120 participants, where 41 were male and 79 were female participants (see Table 2). The results from the test show that the data follows a normal distribution, given that all values obtained were greater than the significance value ($p > 0.05$) which is the threshold for normality. Specifically, the test indicated a score of 0.072 for the female dataset and 0.596 for the male dataset, suggesting adherence to a normal distribution.

Table 2.
Normality Test

		Shapiro - Wilk			*Kolmogorov - Smirnov*[a]		
		Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
WEMWBS	Female	. 971	79	.072	. 102	79	.040
	Male	. 978	41	. 596	. 084	41	. 200*

*. Lower bound of true significance
a. Lilliefors Significance Correction

Research Instrument

To measure mental health, the Warwick Edinburgh Mental Well-Being Scale (WEMWBS) was utilized. This tool is freely available by the developers on different websites. The reliability of WEMWBS was very strong, with a Cronbach's alpha of 0.87. This 14-item scale proposes a straightforward scoring method, achieved by summing each of the 14 items' scores. However, each item's score ranges from 1 to 5, resulting in a score range of 14 to 70. Higher scores indicate better mental health and well-being, while lower scores indicate poorer mental well-being. Specifically, scores 41 to 44 suggest potential or mild depression and scores below 41 indicate possible signs of clinical depression (Warwick Medical School, 2023). All items in the scale are positively phrased, addressing emotional experiences and functional aspects of mental well-being to enhance its clarity.

Data Collection and Analysis

At the initial phase of data collection, students signed a consent form before data collection, indicating their agreement to participate in the research study and ensuring data privacy. The mental health assessment was initially conducted using the 'WEMWBS' scale, focusing on students exhibiting lower mental health scores. This approach allowed for a targeted examination of mental well-being among university students facing mental health issues and challenges. The process of data collection occurred at the same place, through conducting counseling sessions of students by the students' counselors within their universities (10 from each university). The remaining half of the participants were introduced to AI-based platforms for their mental health guidance. After a month, the students who were taking counseling services from AI-based platforms were assessed for their mental health and well-being with the WEMWBS tool. The data was analyzed

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using the statistical software Statistical Package for the Social Sciences (SPSS), calculating both descriptive and inferential statistics (Paired and Independent sample *t*-test and regression analyses) to compare mental health outcomes between both counseling services.

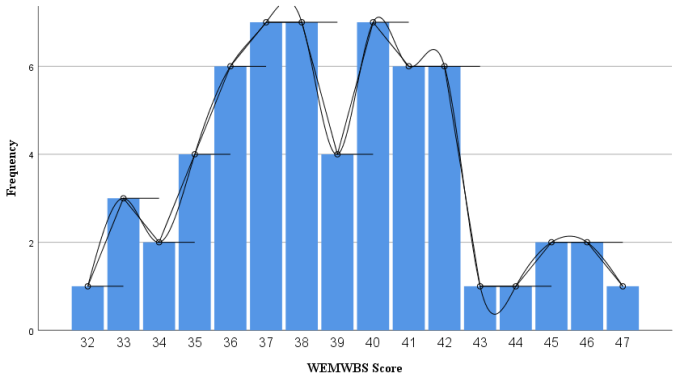
Findings

Human Counseling Services

Mental Health before Counseling: The mental health assessment was conducted before receiving any mental health counseling from mental health counselors by using WEMWBS scale. The results revealed that the majority of students (46.19%) reported experiencing mental health issues "some of the time," followed by 33.93% indicating "rarely," and 14.16% reporting "often" experiencing these challenges in their life and personality. Figure 2 illustrates the distribution of WEMWBS scores among university students. It reveals that the most observed range of scores falls between 33 to 42. According to the tool's calculating system, scores below 41 suggest lower levels of mental well-being, potentially indicating signs of clinical depression in students.

Figure 02.

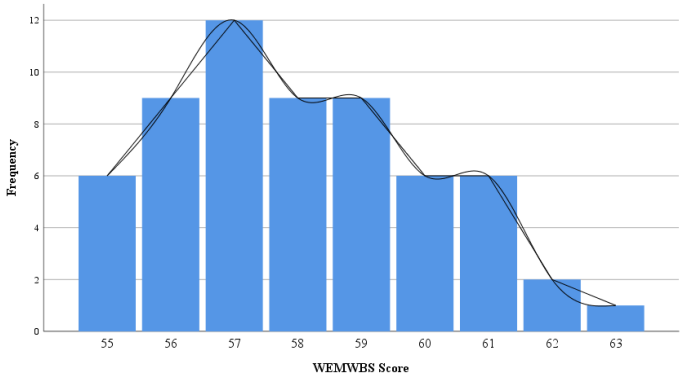
Scores of WEMWBS of University Students before Counseling Sessions



Mental Health after Counseling: The data reveals a significant shift in WEMWBS scores post-counseling session, indicating considerable improvement among students in handling and managing their mental health-related concerns. The findings illustrate that the majority of students (48.21%) stated that they were experiencing mental health issues ‘often’, followed by 33.45% indicating 'all of the time,' and 17.97% reporting 'some of the time' experiencing these challenges in their daily routine. However, the overall mean score on the WEMWBS tool was M=4.14 (SD=0.688). The data demonstrates noticeable changes in students' mental health across several aspects. Most conspicuously, there is a shift from lower to higher scores in several dimensions of the WEMWBS, indicating enhanced positivity and functionality post-counseling sessions. Figure 3 shows the distribution of WEMWBS scores among university students subsequent to counseling sessions facilitated by university students’ counselors. However, scores below 44 suggest mild to clinical depression, yet after counseling, the observed scores remarkably shifted to 55 and above, reflecting positive mental well-being among the students.

Figure 03.

Scores of WEMWBS 0f University Students after Counseling Sessions by Mental Health Counselors



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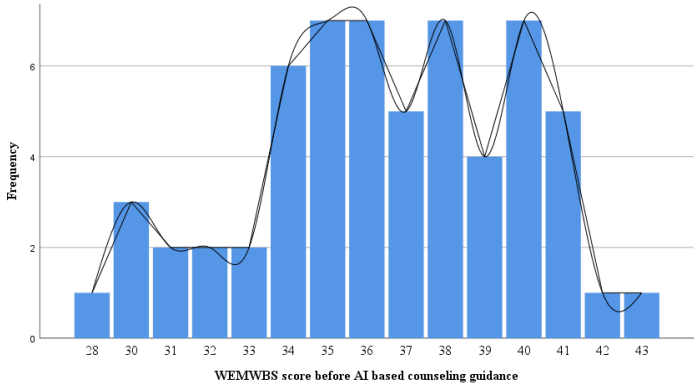
AI-based Counseling Services

Mental Health before AI-Based counseling services: The WEMWBS results of the mental health condition of students prior to receiving any guidance or counseling services from AI-based platforms indicated that a majority of university students (46.66%) reported experiencing mental health related issues "rarely," followed by 39.16% indicating "some of the time," and only 9.28% reporting "often" experiencing these challenges in their life. The highest mean score was observed for item number 9, "feeling close to people" (M=2.87, SD=.873), followed by item 11, "making up their mind about new things" (M=2.77, SD=.810). The overall mean score was observed M=2.61 with SD=0.765. Figure 4 shows the distribution of WEMWBS scores among university students before receiving counseling guidance from AI-based platforms indicating the lower levels of mental health and well-being, suggesting signs of clinical depression.

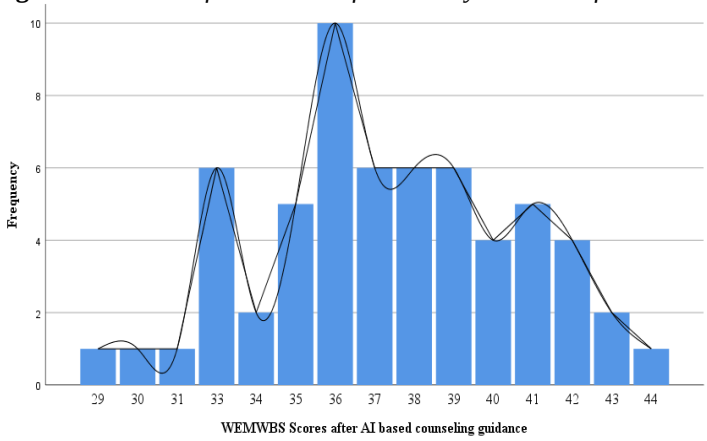
Figure 04.
Scores of WEMWBS of University Students before Counseling Sessions by AI



The most common range of scores lies between 34 to 41. As per assessment criteria of tool, scores below 41 suggest lower levels of mental health & well-being, potentially indicating signs of clinical depression.

Mental Health after AI-Based Counseling Services: The findings indicate that a majority of students (45.47%) still experienced mental health issues "rarely," followed by 42.73% indicating "some of the time," and 9.28% reporting "often" facing these challenges in their life despite seeking guidance for their mental health related issues. However, the highest mean score was observed for item number 9, "feeling close to people" (M=2.90, SD=.858), followed by item 13, "interested in new things" (M=2.82, SD=.770). Overall mean of WEMWBS was calculated as M=2.87 with SD=0.873. However, there's minimal disparity in the mental health outcomes of students before and after receiving guidance from AI-based platforms. Figure 5 highlights the predominant range of scores that falls between 33 to 42. Scores propose that students continued to face mental health related issues even after receiving counseling services from AI.

Figure 05. *Scores of WEMWBS of University Students after Counseling from AI*



RQ1: How do the mental health outcomes differ between students who receive AI-based counseling service and those who receive human counseling for mental health issues?

There's a noticeable discrepancy in the mean scores between both counseling services. Prior to counseling by mental health counselors, the mean score of WEMWBS for students' mental health was observed at 2.77, which was significantly improved to 4.14 post-counseling, as shown in Table 3. Conversely, the mental health state of students before receiving guidance services from AI-based platforms rested at M=2.61, displaying only a slight shift to M=2.665 post-guidance. These results strongly suggest that human-based counseling exhibits greater efficacy in enhancing mental well-being compared to counseling services received from AI-based platforms.

Table 3.

Descriptive Statistics of WEMWBS of Students before and after Receiving Counseling

	Before (Pre-test)		After (Post-test)		Post-Pre-Test	
	M	**SD**	**M**	**SD**	**M**	**SD**
Human Counseling	2.77	0.78	4.14	.688	1.371	.735
AI-based	2.61	.765	2.665	.7255	.055	.746

Research Hypothesis (H_1): A noticeable disparity is found in the mental health outcomes between students who receive counseling services from AI and those who receive guidance from mental health counselors.

Null Hypothesis (H_o): There is no difference found in the mental health outcomes between students who receive counseling services from AI and those who receive guidance from mental health counselors.

Differences in WEMWBS scores before and after human counseling exhibited a substantial mean change of 1.371, indicating significant improvement, with a corresponding t-value of 14.45 (see Table 4). In contrast, the mean change for AI-based counseling services was negligible (0.055), suggesting less noticeable alterations, with a t-value of 0.57. However, the notable difference of 1.316 in paired means between the two approaches highlights the effectiveness disparity favoring human counseling. The *p*-values (Sig. 2-tailed) of 0.000 underscore the statistical significance, emphasizing the distinct impact of each approach on students' mental health outcomes. Thus, the null hypothesis is rejected, and the research hypothesis is accepted: a noticeable disparity is found in the mental health outcomes between students who receive counseling services from AI and those who receive guidance from mental health counselors.

Table 4.

Paired Sample t-test for Pre and Post-Test for the WEMWBS Scores of Students

		Pair 1	***Pair 2***	***Pair 3***
WEMWBS		*Post-Pre*	*Post-Pre*	
Paired Differences		Human Counseling	AI-based	Human vs. AI
t		14.45	.57	13.77
df		59	59	59
sig. (2-tailed)		.000	.000	.000
Mean		1.371	.055	1.316
Std. Deviation		.735	.746	.741
Std. Error Mean		.095	.096	.096
95% Confidence Interval	Lower	1.080	-.138	1.125
	Upper	1.561	.248	1.507

Statistical analysis performed on independent samples t-test involved two sets of data: the differences between pre- and post-counseling scores for human counseling and AI-based counseling (see Table 5). For the human counseling approach, Levene's test for equality of variance assumed equal variances with an F-value of 0.038 with $p = .847$ ($p>.05$) showed no substantial difference in variances. The t-test resulted in a t-value of 3.350 with 28 degrees of freedom, yielding a significant p-value of .002 ($p<.05$). The mean difference between pre- and post-counseling scores for human counseling was 5.360, suggesting a notable increase in scores post-counseling, and this change was statistically significant with 95% confidence interval ranged from 2.082 to 8.638. However, counseling services received from AI-based platforms indicated no significant difference in variances between pre- and post-counseling scores (p=.391, F-value=0.760). Assuming equal variances, the t-test yielded a t-value of -0.231 with 28 degrees of freedom, resulting in a non-significant *p*-value of .819 ($p>.05$). The results show that there is a significant increase in scores of post-counseling for human-based counseling, whereas there is no significant change in scores between post- and pre-counseling sessions of counseling services received from AI-based platforms based on the independent samples t-test.

Table 5.
Independent Sample t-test for the Pre and Post Counseling

			***Post-Pre*. Human Counseling**	***Post-Pre*. AI-based**
Levene's Test Equale Variances	F		.038	.760
	Sig.		.847	.391
t-test for Equality of Means	t		3.350	-.231
	df		28	28
	Sig. (2-tailed)		.002	.819
	Mean Difference		5.36025	-.09938
	95% Confidence Interval	Lower	2.08242	-.98066
		Upper	8.63807	.78190

The objective was based on the comparison of mental health outcomes of university students seeking counseling therapy for addressing mental health issues between human counseling and AI-based counseling services. The results demonstrate significant improvement in mental health outcomes post-counseling compared to pre-counseling with human counseling when compared to AI-based counseling services. The comparative analysis between both approaches shows that human counseling was significantly more effective compared with AI-based counseling services. Although the results, the paired-sample t-test confirmed that the difference in effectiveness levels between human counseling and AI-based counseling was statistically significant, which was further supported by the independent-sample t-test. Therefore, it was concluded that human counseling is more effective in providing counseling services and greater efficiency in addressing mental health and improving mental health outcomes compared to AI-based counseling services. The research hypothesis that a noticeable disparity existed in mental health outcomes between human and AI-based counseling was accepted.

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Discussion

The current research findings strongly suggest that human counseling exhibits greater efficacy in enhancing mental well-being compared to counseling services received from AI-based platforms among university students. However, AI-based counseling is less effective for mental health support, university students reported mixed opinions on AI-based counseling services. They appreciated that AI is accessible and 24/7 available, which allowed them to access support on demand for relieving stress, anxiety, or any kind of depression, while mental health counselors are not available 24/7 but are much more effective in mental health counseling. Previous studies support these findings, indicating that AI algorithms and machine learning utilization for counseling cannot effectively address daily life stresses, anxiety, and depression as mental health counselors do (see Rehman et al., 2024; Lin, 2024; Kuhail et al., 2022). Furthermore, few studies like Fulmer et al. (2018) demonstrated that AI Chatbots delivering behavioral therapies significantly reduced symptoms of stress, anxiety, and depression. Additionally, Torous (2020) and his team found that AI-based mobile applications and Chatbots could effectively provide real-time interventions, monitor mood, and promote self-management skills but cannot provide the emotional attachment that humans can.

However, many research studies suggest that AI is playing a vital role in the mental health field. Similar to mental health counselors, it has also emerged as a significant facilitator in addressing mental health-related issues. AI technologies offer innovative ways and ideas to meet mental health needs through machine learning algorithms, natural language processing, and conversational agents. These AI-based platforms provide real-time support, deliver personalized interventions, and analyze vast amounts of data to identify patterns from previous studies, researches, and theories. For example, AI-powered Chatbots that offer immediate assistance by delivering therapeutic content and help to potentially increase access to mental health resources for underserved populations (see Rehman et al., 2024; Torous et al., 2020). Meanwhile, these AI-based applications or Chatbots offer limited support as compared to mental health counselors. AI applications cannot provide immediate support for severe cases such as suicide attempts or homicidal thoughts. These issues cannot be adequately addressed by AI-based counseling services; they require the immediate support of a counselor who can interact with patients face-to-face and stop them from having negative thoughts through different activities. Figure 6 demonstrates a chat with a Chatbot (counselor) from a student experiencing issues with his parents resulting in isolation and unfulfilled desires impacting his educational performance, leading to thoughts of suicide. The conversation with the Chatbot indicates that this student needs to visit a mental health counselor for immediate support. AI doesn't have the ability to deal with these types of severity in patients or clients. This issue was observed and reported by the majority of students who were taking sessions from AI-based counseling services.

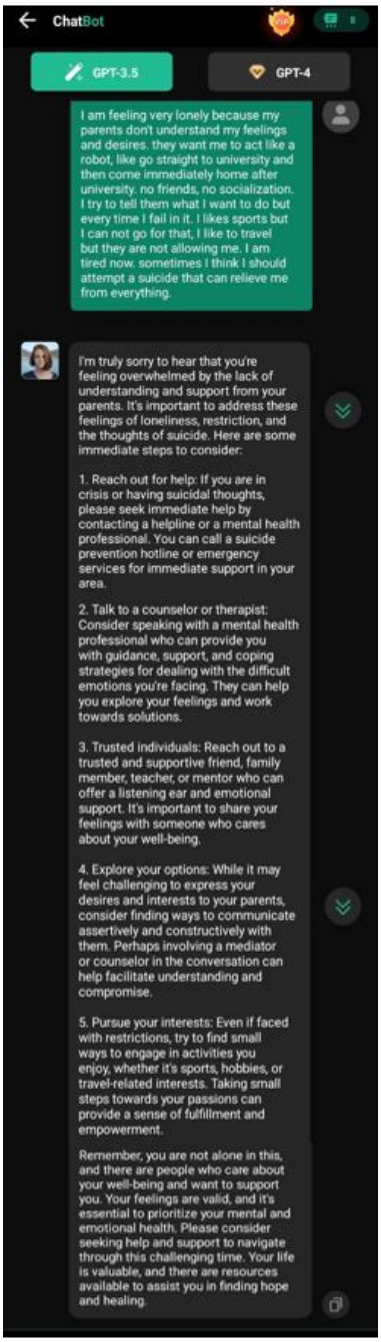

Figure 6

Communication between the Chatbot counselor and student with mental health issues

However, AI has a deep understanding of theories and therapeutic approaches but lacks emotional and real-time experiences, and individual differences. On the other hand, the depth of understanding that mental health counselors have is rooted in their training and practices. Together with students/clients, mental health counselors explore underlying issues, provide insights, and help them to navigate their emotional and behavioral concerns in a meaningful way. They create an environment to foster reality-based applications, which facilitate a deep human connection and share personal experiences with clients.

Mental health counselors use flexible approaches to tailor the specific circumstances and personality of each client. This adaptability in counseling approaches enables counselors to address nuanced issues effectively with guidelines and helps

in offering personalized support that can evolve over time. Furthermore, they have the ability to read non-verbal cues that enrich the therapeutic engagement for more precise and responsive interventions such as facial expressions, body language, and movements (see similar findings by Lin, 2024; Norcross & Wampold, 2018). These non-verbal cues are very helpful to judge the client's/student's false statements and the level of severity.

Meanwhile, AI doesn't have the ability to judge the verbal or non-verbal cues of the clients/students. But it can personalize the therapeutic experience through a wide variety of data analysis techniques and offer tailored interventions based on user responses. Torous et al. (2020) cited that AI as a data-driven approach allows for timely and targeted mental health support for clients, which can provide insights into patterns and trends. Hence, the findings from the current and previous studies suggest that AI can personalize content to some extent based on the severity of the cases, it can provide only initial guidelines and support with non-judgmental statements, but it lacks immediate assistance to severe mental health-related issues.

In terms of accessibility and cost, AI-based counseling services offer notable benefits but their effectiveness and usefulness for mental health support can vary from case to case. It has been observed that AI may struggle with more complex cases such as requiring emotional understanding and immediate concerns, but it has an ability to deliver standardized and evidence-based theoretical interventions for common mental health issues. Conversely, mental health counselors often excel in handling complex mental health cases or situations or nuanced circumstances with effectiveness due to their excellence in adaptability, flexibility, and responding to individual needs. But these mental health counselors are not easily available for mental health counseling. Besides this, the counseling service by mental health counselors within university premises is free from any charges but outside they are costlier than AI.

In traditional counseling, AI can create a barrier because AI is available 24/7 to all, which can be beneficial for individuals who live in remote areas and have limited or no access to mental health-related support. Numerous studies support the finding that AI is generally more affordable and accessible compared to mental health counselors (see also Bendig et al., 2022; Torous et al., 2020). Additionally, AI ensures consistency in delivering evidence-based interventions and treatment, provides mental health support, and makes it more accessible to a broader population. Similar to human counseling, some students faced various challenges in the utilization of AI in mental health counseling, such as technical difficulties in adapting to digital platforms, electricity or internet issues, and repetition of suggestions in therapy. Similar findings were sustained in a previous study which reported that these AI challenges might impact the overall experience of clients (Smith et al., 2024).

Both counseling services: mental health counselors and AI raise important concerns of data-privacy and ethics in counseling procedures. AI-based counseling services not only ensure the confidentiality and secure handling of sensitive mental health data which are crucial to maintaining user trust (Torous et al., 2020), but also rely on collecting and analyzing data and pose risks related to its security and privacy. However, mental health counselors typically adhere to the ethical guidelines and professional standards to protect client confidentiality and ensure ethical practice in mental health counseling (see similar findings by Lin, 2024; Flückiger et al., 2018).

Conclusion

The study concludes that the wider field of psychology is still in need of mental health counselors, and is not quite ready for the handover of counseling practices into the hands of AI, which remain controversial. These professionals and their skill sets will not be going obsolete in the foreseeable future, and the ideal approach for the implementation of AI in counseling today should be to combine human and artificial strengths. Apart from the technical reasons and insufficiently-developed technology, we must also acknowledge that the average client needing mental health counseling is not yet ready to rely on AI, and a gradual transition is needed to ensure they receive comprehensive and personalized support tailored to their unique needs and are able to lead satisfying and meaningful lives. The study highlights the unique strengths and weaknesses of each approach. The recommendation is made for an effective integrative approach by combining both counseling approaches; AI and mental health counselors for comprehensive mental health services. As a complementary tool alongside traditional counseling, AI-assisted counseling can enhance mental health support for individuals and students with mental health issues. For this purpose, advanced AI training should be provided to human counselors for improved therapeutic outcomes. Moreover, awareness programs should be arranged for students and the younger generation for the potential use and misuse of AI in counseling.

Ethical Consideration

The researcher strictly follows the ethical guidelines on human research for the current study by ensuring that all participants provided informed consent prior to enrolling in the study and the purpose and potential risks of the study were disclosed to the participants. The participants were guaranteed that they could withdraw from the study at any point during the study.

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