

AI-Supported Guidance and Counseling Programs : A Theoretical Vision for a Guidance Program in the Context of Artificial Intelligence

الإرشاد والبرامج الإرشادية المدعومة بالذكاء الاصطناعي: تصور نظري لبرنامج إرشادي في ظل الذكاء الاصطناعي

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Abstract:

This study explores the integration of artificial intelligence in psychological counseling by presenting a conceptual model for an AI-based program supporting students' mental well-being. Using a descriptive-analytical approach, the research examines the design mechanisms of this program, including AI-powered chatbots for psychological consultations. It also discusses AI's integration with traditional counseling methods while emphasizing ethical regulations and human supervision. The study evaluates the model's effectiveness in improving access to psychological support and enhancing its quality. Additionally, it addresses privacy and data security challenges and proposes solutions for the responsible use of this technology.

Keywords: Artificial Intelligence; Psychological Counseling; Guidance Programs

ملخص :

يستكشف هذا البحث دمج الذكاء الاصطناعي في الإرشاد النفسي من خلال تقديم تصور لبرنامج قائم على الذكاء الاصطناعي لدعم الصحة النفسية للطلبة. باعتماد المنهج الوصفي-التحليلي، يناقش البحث آليات تصميم هذا البرنامج، بما في ذلك استخدام روبوتات الدردشة للاستشارات النفسية. كما يتناول كيفية تكامل الذكاء الاصطناعي مع الأساليب التقليدية، مع التركيز على الضوابط الأخلاقية ومتطلبات الإشراف البشري. يهدف البحث إلى تقييم فعالية هذا التصور في تحسين الوصول إلى الدعم النفسي وتعزيز جودته. كما يناقش تحديات الخصوصية وأمن البيانات ويقترح حلولاً للاستخدام المسؤول لهذه التقنية.

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Introduction

With the rapid advancements in artificial intelligence, its applications in psychological counseling have emerged as a promising tool for enhancing the quality and accessibility of mental health care. Studies indicate that AI-based applications, such as chatbots, can provide effective psychological support available around the clock, reducing the burden on limited human resources in this field (Mustafa, 2024). However, this shift raises fundamental questions about the effectiveness of these tools compared to traditional human interaction in psychotherapy, in addition to ethical challenges related to data privacy and user confidentiality (National Center for Mental Health, 2023).

Although previous studies have explored the use of AI in psychological support, a scientific gap remains regarding the feasibility of designing AI-driven counseling programs that can effectively enhance mental health support without compromising the humanistic aspect of therapy. Most prior research has focused on the technical efficiency of AI, often overlooking how to integrate it meaningfully into traditional counseling approaches in a way that is both effective and acceptable to users.

Based on this, the study aims to explore how to design an AI-based counseling program that can effectively support psychological guidance while addressing ethical and professional challenges. The research seeks to answer the following question: How can an AI-integrated counseling program be developed to complement traditional psychological counseling in a way that ensures both efficiency and user acceptance?

➤ Significance of the Study:

- Opening New Horizons for AI-Based Psychological Counseling: This article serves as an essential reference for exploring how artificial intelligence (AI) can be integrated into psychological counseling to develop innovative and more accessible support systems. It highlights the potential of AI-driven counseling programs in addressing increasing psychological pressures and modern life challenges.
- Developing a Framework for Future AI Counseling Programs: The study emphasizes the necessity of transitioning from traditional counseling methods to AI-enhanced models. By leveraging technology, psychological

support services can become more personalized, efficient, and scalable, ensuring broader accessibility.

- Addressing Ethical Considerations in AI-Driven Counseling: The article raises key ethical questions about privacy, confidentiality, and the human-AI interaction in psychological support. It aims to establish ethical foundations that ensure responsible and secure implementation of AI in counseling.

➤ **Objectives of the Study:**

1. Developing a conceptual framework for AI-integrated psychological counseling.
2. Identifying key areas where AI can enhance and complement traditional counseling approaches.
3. Presenting a theoretical vision for future counseling models and their expected AI applications.
4. Designing an AI-powered counseling system, particularly through chatbot-based interventions.
5. Examining ethical challenges and proposing solutions for integrating AI into psychological counseling.

1. Theoretical Framework

Artificial intelligence has transformed psychological counseling by enabling the development of programs that provide personalized support and instant responses. This approach combines AI with human intervention to enhance counseling effectiveness. Accordingly, this theoretical section explores the scientific foundations of these programs, focusing on their effectiveness, challenges, and potential for future development.

1.1 - Definition of Terms

I. Artificial Intelligence

Artificial intelligence consists of two words: the first, "artificial" (Artificial), refers to something man-made, while the second, "intelligence" (Intelligence), is a central concept in psychology that denotes the ability to understand, think, and learn.

AI is defined as the simulation or imitation of human intelligence by computers. Experts indicate that many current applications remain relatively simple and, therefore, do not fully reflect true artificial intelligence. Some

researchers argue that this definition is inaccurate, as it implies that true artificial intelligence does not yet exist.

AI is also defined as a technology that enables machines to simulate complex human skills (Complex human skills). However, this definition does not fully capture the concept unless these complex human skills are clearly identified.

According to Al-Obaidi (2022), artificial intelligence can be defined by its ability to act as if a human were making the decisions, attempting to deceive the interrogator into believing that a real person is responding to the questions.

II. Counseling Program Concept

According to Al-Zahran (1994), a counseling program is "a planned and organized program that provides a set of direct and indirect services, both individually and in groups, with the goal of assisting in achieving healthy development, psychological well-being, and psychological, educational, and social adjustment".

Meanwhile, Hussein (2004) defines a counseling program as "a set of specific steps based on theories, provided to individuals over a certain period of time with the aim of modifying their behaviors".

Based on the previous definitions, a counseling program can be described as a structured plan that includes various services, relying on theories to support individuals in behavior modification.

III. Academic Advising

Academic advising is considered a structured communication channel between the student and the university, helping the student formulate their goals and work towards achieving them, in addition to identifying their position in the educational process and the available learning experiences (Al-Awad Khairallah, Al-Zahrani, & Al-Rashidi, 2020, p. 22).

There are also obstacles to academic advising that hinder the provision of services comprehensively, some of which are related to the student, others to the academic advisor, and some to the administrative system (Al-Awad Khairallah et al., 2020).

1.2 - The Self-Theory of Carl Rogers:

Carl Rogers (1961) summarized the changes that occurred in his theory from 1942 to 1960 by saying:

"In the early years of my specialization in counseling and psychotherapy, I used

to ask the following question: How can I treat or change this person? Now, I rephrase this question as follows: How can I create a relationship and a psychological environment in which this person can achieve the best possible psychological growth?" (Zahran, 1997, p. 280).

1.2.1- The Concept of Self According to Rogers:

Carl Rogers defines the self as the cognitive organization of an individual's concepts, values, goals, and ideals. It represents the individual's consistent perception of themselves. Rogers believes that the self is the core of human personality and that the self-concept serves as the cornerstone that organizes human behavior (Al-Dahri, 2000, p. 102).

Rogers also asserts that the self-concept is relatively stable, but it can be modified and changed. He explains that an individual's behavior is primarily driven by the attempt to achieve self-actualization, which may lead them to adjust their behavior to align with their surrounding environment. If the environment is unfavorable, the individual's problems may worsen. Conversely, self-growth contributes to better mental health, increased strength, and greater competence in forming better relationships with others (Al-Deeb, 1994, p. 14).

1.2.2- Some Essential Conditions for a Counselor:

- 1- The 1- The counselor should be psychologically well-adjusted, ensuring that their self-concept aligns with their environment and social norms.
- 2- They must be sincere and authentic in their interaction with the client.
- 3- They should demonstrate transparency and sensitivity to the client's emotions, offering acceptance and encouragement.
- 4- They must show unconditional respect and appreciation for the client, regardless of their appearance, thoughts, or the outcome of the counseling process (Palmer, 2000).

Key Question: How can artificial intelligence replicate human qualities and emotional assessment in counseling?

The proposed model in this study explores AI integration while preserving these essential aspects.

2- Artificial Intelligence in Psychological Counseling: Importance, Applications, and Training

2.1- Artificial Intelligence and Psychological Counseling:

With the advancement of artificial intelligence technologies, many psychological counselors in schools, universities, and workplaces are seeking to utilize tools and systems that can facilitate their tasks and reduce workload. Artificial intelligence has already succeeded in providing applications and tools that support the counseling process across various institutions. Moreover, it has evolved to offer a virtual psychological counselor capable of handling, assessing, and providing solutions to psychological and behavioral issues. With the progress of Affective Computing and Emotional Artificial Intelligence, virtual psychological counselors may, in the future, be able to compete with human counselors on a real level, potentially leading to the marginalization of human counselors and creating significant challenges (Page & Gehlbach, 2017).

In response to the growing issues of anxiety and depression among students, researchers have developed a smartphone-based system called Psyche, designed to connect students with mental health specialists for counseling. The application features a virtual reality environment that allows users to relax in a setting of their choice while listening to a selected voice. The collected data is then transmitted to a cloud database, enabling counselors to access it via a mobile application based on the client's request (Asera, 2019).

Additionally, artificial intelligence technologies, such as chatbots, utilize natural language processing to analyze user interactions, providing deep insights into psychological conditions and predicting counseling outcomes with an accuracy rate of up to 89% (Ping, 2024).

2.2- Artificial Intelligence in Career Counseling

The integration of AI into career counseling is seen as a means to enhance post-secondary education and lifelong learning, despite ongoing challenges related to adoption and ethical considerations (Chandrol et al., 2024).

While AI offers promising advancements in providing counseling, it also raises ethical concerns and requires careful implementation to ensure that it complements rather than replaces human interaction in therapeutic settings.

The integration of artificial intelligence (AI) into counseling and mental health programs has garnered significant attention in recent years, highlighting both its potential benefits and challenges. AI technologies, particularly machine learning and natural language processing, are being used to enhance psychological counseling by predicting outcomes, providing personalized support, and

improving accessibility. However, the effectiveness of AI in independently delivering psychotherapy remains a subject of debate.

2.3- Artificial Intelligence in Counselor Training

AI-based feedback systems in intelligent teaching environments have been shown to improve the quality of feedback for counseling tasks, with fine-tuning to enhance both emotional and objective aspects of feedback (Rudolph et al., 2024).

The acceptance of AI-generated feedback among aspiring counselors is influenced by their prior knowledge of AI, indicating the need for educational initiatives to enhance their understanding and comfort with these technologies (Rudolph et al., 2024).

2.4- The Importance of Artificial Intelligence for Psychologists

Today, it is essential for psychologists to learn about artificial intelligence to transfer this knowledge to the public, simplify its concepts, help people accept it, and eliminate associated fears. AI facilitates the work of psychologists, making them more flexible and efficient in diagnosing and treating psychological disorders, predicting them, and developing preventive counseling plans based on these predictions.

A field study conducted by Gado et al. (2021) on psychology students to examine their acceptance of AI applications and their use found that fostering curiosity among students increased their enthusiasm for AI acceptance. This was achieved by highlighting its benefits and explaining key technologies and tools that allow psychologists in various fields to be more adaptable, efficient, and effective.

3-Previous Studies on Integrating Artificial Intelligence in Counseling

- a) **The Use of Artificial Intelligence in Psychotherapy:** Eichstaedt & Stadel (2024) explored how AI can be integrated into psychotherapy, highlighting its potential to enhance the therapeutic process by automating routine tasks such as initial interviews and symptom tracking. The researchers proposed a three-phase model that begins with AI as an assistant, then as an interactive partner, and finally as an autonomous system managing full patient interactions, allowing therapists to focus on deep diagnosis and treatment.

- b) **AI-Powered Academic Guidance and Counseling System:** Jeghal et al. (2023) introduced an AI-based academic counseling system designed to assist students in making well-informed academic decisions. The system analyzes students' profiles and interests while leveraging machine learning models to predict university admission chances and suggest suitable alternatives, ultimately improving students' decision-making processes.
- c) **The Ethical Use of AI in Counseling Practices:** Hargett & Parsons (2024) examined the ethical challenges of using AI in counseling, emphasizing the importance of confidentiality, obtaining informed consent, and maintaining counselors' competence. The study stressed that AI should be a supportive tool rather than a replacement for human counselors while ensuring ethical responsibility and the well-being of individuals receiving counseling services.

4-The Integration of Traditional Psychological Counseling and AI-Assisted Counseling: A Study on the Virtual Chatbot Tess

Access to mental health services poses a challenge due to barriers related to cost, location, availability, and social stigma. In this context, artificial intelligence provides alternative solutions to support traditional counseling, such as the virtual chatbot Tess, which relies on AI technologies to deliver fast and effective psychological support. This study aimed to assess the feasibility and effectiveness of Tess in reducing self-reported symptoms of depression and anxiety among university students through a randomized controlled trial involving 75 students from 15 American universities. Participants were divided into three groups: two groups received unlimited access to Tess for either two or four weeks, while the control group only received informational materials from the National Institute of Mental Health (NIMH). The results showed a significant reduction in depression symptoms ($P = 0.03$) and anxiety symptoms ($P = 0.045$ and $P = 0.02$) among Tess users compared to the control group. The study concluded that AI can serve as an effective and cost-efficient tool for supporting mental health; however, it cannot replace human counselors but rather acts as a supportive means to enhance traditional counseling (Fulmer et al., 2020).

In light of these findings, it has become increasingly feasible to integrate this technology into various aspects of life, including psychological counseling. One of the key roles of artificial intelligence is its ability to complement traditional

counseling methods across multiple domains, providing support and enhancing psychotherapy processes in the following ways:

1. **Early Guidance and Counseling:** AI can assist in providing early psychological guidance. AI-powered applications, such as chatbots, interact with individuals at the early stages of their psychological struggles. These tools offer continuous support, enabling immediate consultations even when human counselors are unavailable.
2. **Continuous Monitoring and Evaluation:** AI facilitates tracking individuals' progress throughout counseling sessions. By analyzing personal data and emotions expressed through digital platforms, AI systems can predict early signs of stress or depression, allowing therapists to intervene promptly.
3. **Big Data Analysis:** AI can process vast amounts of data to identify psychological patterns with high accuracy. Through machine learning techniques, counseling programs can be tailored to meet individual needs based on historical data analysis.
4. **Customized Therapy Strategies:** AI offers interactive tools that help develop personalized psychological treatment strategies. By leveraging AI technologies, therapy approaches can be optimized according to individuals' unique needs, enhancing the effectiveness of psychological treatment.
5. **Integration with Assistive Tools:** AI can serve as an auxiliary tool for psychological specialists. For example, AI can provide therapists with insights and recommendations on how to improve their sessions or adjust treatment methods based on collected data.

By integrating AI-powered counseling tools with traditional approaches, a more comprehensive and effective psychological support system can be achieved, bridging the gap between accessibility and quality mental health care.

5-Challenges and Proposed Solutions in Using Artificial Intelligence in Counseling:

5.1-Challenges and Limitations

- ✓ **Therapeutic Relationship:** The ability of AI to establish a therapeutic relationship, which is essential for effective psychotherapy, remains uncertain (Grodiewicz & Hohol, 2023).

- ✓ **Complexity of Psychotherapy:** Current AI systems may struggle with the complexities of human emotions and interactions, limiting their ability to provide comprehensive treatment (Grodniewicz & Hohol, 2023).

While AI offers transformative potential for mental health counseling, its role as an independent therapist remains under scrutiny, necessitating further research and development to address current challenges.

5.2-Benefits of Integrating AI into Counseling Programs

Integrating AI into counseling programs presents several potential advantages, particularly in enhancing accessibility, personalization, and overall quality of care. AI-driven technologies can help overcome major barriers in mental health services, making them more efficient and effective. The following sections outline the key benefits of AI integration in counseling.

5.2.1-Improving Access to Care

- AI can reduce barriers to mental health services, particularly in underserved areas, by providing immediate support through platforms such as chatbots ("Deep Learning Mental Health Dialogue System", 2023).
- Systems like the Virtual Reality Empathy-Centered Counseling Chatbot (VRECC) have shown promising results in offering timely assistance to students facing stress, thereby reducing the risk of severe mental health issues (Trappey et al., 2022).

5.2.2-Personalized Treatment

- ✓ AI can analyze individual user data to tailor interventions, enhancing the relevance and effectiveness of counseling strategies ("Impact of AI in Mental Health", 2023).
 - ✓ Tools like CARE assist peer counselors by suggesting context-specific strategies, improving the quality of responses and support provided ("Helping the Helper: Supporting Peer Counselors via AI-Empowered Practice and Feedback", 2023).

5.2.3-Enhancing Quality of Care

- ✓ AI-driven systems can maintain a consistent level of empathy and engagement, as demonstrated by the Deep Learning Mental Health Dialogue System, which is designed to respond empathetically to users ("Deep Learning Mental Health Dialogue System", 2023).

- ✓ AI integration can also facilitate continuous training and feedback for counselors, ensuring ongoing improvements in service delivery ("Helping the Helper: Supporting Peer Counselors via AI-Empowered Practice and Feedback", 2023).

While AI integration into counseling programs offers significant benefits, potential drawbacks, such as ethical concerns and the risk of data bias, must be carefully considered. Balancing these factors will be crucial for the successful implementation of AI in mental health care.

6-Expected Outcomes of Future AI-Powered Counseling Programs

6.1-Enhancing the Effectiveness of Psychological Interventions:

AI can analyze data rapidly and accurately, allowing for more precise and efficient case-specific recommendations. For example, AI can assess conversations or client responses in real time and provide advice aligned with their emotional and cognitive needs. This increases the effectiveness of psychological interventions by making responses faster and more accurate (Mustafa, 2024).

6.2-Expanding Access to Counseling Services:

The use of intelligent robots and AI-powered applications can facilitate online counseling, making these services available to individuals in remote areas or those who face challenges accessing therapists in person. These applications provide individuals with psychological support anytime and anywhere, eliminating the need to visit treatment centers. This enhances inclusivity and reduces geographical and social barriers (National Center for Mental Health Promotion, 2023).

6.3-Providing Personalized Solutions Based on Individual Needs:

By analyzing each individual's data and tracking their psychological progress over time, AI can tailor counseling and advice to suit their unique challenges. For instance, AI can predict feelings of anxiety or depression based on specific behaviors and address them proactively through personalized therapeutic programs (Fahm Platform, 2019).

6.4-Improving Client Progress Monitoring:

AI can enable systems to track client progress with greater accuracy and objectivity by monitoring their emotions and changes throughout the treatment period. This precise tracking allows counselors to adjust therapeutic programs

more flexibly based on extracted data, ultimately improving psychological treatment outcomes (Najah Net, 2024).

6.5-Providing Immediate and Interactive Support:

In cases where individuals require urgent psychological assistance, AI can interact with them instantly through digital platforms such as chat applications. This can help alleviate immediate anxiety and stress while offering users quick, actionable solutions.

Future AI-powered counseling programs will evolve into integrated systems that deliver precise and personalized services while balancing technological advancements with human values. The primary goal will remain improving individuals' quality of life and fostering their potential while ensuring adherence to ethical and professional standards.

7-The practical aspect

This study aims to present a psychological counseling model based on AI-powered chatbots, designed to provide adaptive psychological support to university students and enhance their self-confidence through interactive conversations and sentiment analysis. The model is based on Carl Rogers' self-theory, which emphasizes the importance of deep understanding of individuals' emotions and providing a supportive environment that helps them grow and develop.

7.1-Methodology

The descriptive-analytical approach was adopted to describe the proposed counseling model, analyze its working mechanism, and assess its applicability in the university environment. Additionally, qualitative analysis was employed to explore how students interact with chatbots and evaluate the effectiveness of the interventions provided.

7.2-Sample and Study Scope

The model targets university students facing psychological challenges, particularly those related to self-confidence and academic anxiety management. It can be implemented in universities and psychological counseling centers, where it is integrated into the digital platforms available to students.

7.3 Importance of Emotional and Psychological Assessment

The effectiveness of AI-driven psychological counseling heavily relies on the ability to accurately assess the user's emotional and psychological state. The more precise the assessment, the more effective and tailored the psychological interventions will be to meet individual needs. To achieve this, the model integrates advanced sentiment analysis techniques, such as Natural Language Processing (NLP) and deep learning, to analyze both textual and vocal expressions.

Emotional assessment is not merely an analytical phase; rather, it is a key component in the success of intelligent psychological counseling, as it enables:

- Differentiating between levels of psychological distress, allowing for varied responses that match the severity of the condition.
- Adjusting intervention strategies according to the user's emotional state in real-time.
- Identifying cases that require human intervention, particularly those involving high psychological risks.
- Tracking emotional changes over time to ensure continuity of counseling and adaptation to the user's evolving needs.

Based on the importance of emotional and psychological assessment in AI-driven psychological counseling, a set of tools has been adopted to ensure accurate and effective evaluation. These tools include:

7.3.1-Tools Used

The study relies on the following tools:

- AI-powered chatbot for interactive psychological counseling.
- Sentiment analysis to assess students' emotional states.
- Evaluation questionnaires to measure progress and effectiveness.
- Follow-up system to track student development over time.

The model is based on Carl Rogers' Self-Theory, which emphasizes person-centered counseling, unconditional acceptance, and emotional understanding. Within this framework, an intelligent chatbot is designed to simulate the role of a psychological counselor by:

- ✓ Asking deep questions to explore students' emotions and attitudes.
- ✓ Providing supportive responses that reflect understanding and acceptance, fostering personal growth.

- ✓ Guiding students in developing self-strategies for decision-making and boosting self-confidence.

Table 1. AI-Supported Psychological Counseling Model

Axis	Details
Adopted Theory	Carl Rogers' Self-Theory
Objectives	1. Provide adaptive psychological counseling for university students. 2. Support decision-making through AI-driven guided conversations. 3. Enhance self-confidence via sentiment analysis and continuous follow-up. 4. Achieve integration between artificial intelligence and human intervention in counseling.
Mechanism of Action	1. Initial Assessment: Collect psychological and emotional data through electronic questionnaires and scales, incorporating sentiment analysis to accurately determine the user's psychological state. 2. Interaction with Chatbot: Ask deep questions to understand the issue based on sentiment analysis and both textual and vocal responses 3. Adaptive Intervention: Provide personalized counseling strategies based on emotional and psychological assessment, allowing the system to adapt its responses according to the user's emotional state and its evolution over time. 4. Follow-up and Evaluation: Measure emotional and psychological changes before and after intervention using data analysis tools, ensuring improved counseling effectiveness and responses aligned with the user's evolving emotional condition. 5. Gradual Interaction: Guide the user through steps including active listening, empathy, and psychological strategies such as rephrasing and positive thinking, while considering emotional fluctuations during the

	interaction.
Potential Challenges	1. Student acceptance of AI-based counseling. 2. The system's ability to understand deep emotions and handle complex cases. 3. Privacy and security of students' personal data
Future Recommendations	1. Integrate the system with human counselors to ensure intervention when needed. 2. Develop advanced algorithms for sentiment analysis and enhance diagnostic accuracy. 3. Expand the model to include other groups such as school students or employees.

Source: Prepared by the researcher

7.4-Proposed System Structure

The system consists of integrated components that provide psychological counseling using artificial intelligence, with a focus on emotional and psychological assessment, including :

Advanced Chatbot: Utilizes generative AI and natural language processing (NLP) to offer intelligent responses that adapt to the student's emotional state.

Psychological Database: Stores information on psychological issues, coping strategies, and past consultations, incorporating emotional assessment for personalized recommendations.

Sentiment Analysis System: Analyzes chat texts and voice recordings to assess the student's emotional and psychological condition.

Pre- and Post-Assessment System: Uses questionnaires and psychological scales to evaluate emotional well-being and self-confidence before and after counseling.

Integration with Human Counselors: Identifies cases requiring human intervention based on in-depth emotional and psychological assessment.

7.5- System Workflow

Step 1: Registration and Initial Assessment

- The student registers in the application and enters basic information.
- An initial questionnaire is completed, including self-confidence measurement and emotional analysis to detect psychological challenges.

Step 2: Interaction with the AI Chatbot

- The system gathers data through open-ended and deep questions inspired by Carl Rogers' Self-Theory.
- Sentiment analysis is applied to assess the user's emotional and psychological state based on writing tone or voice input.
- The chatbot provides personalized guidance strategies, such as relaxation exercises, positive thinking techniques, and self-confidence improvement plans based on emotional assessment.

Step 3: Progress Monitoring and Evaluation

- A post-session questionnaire is administered to measure the student's psychological and emotional improvement.
- The system analyzes new data and adjusts counseling plans based on emotional changes and psychological progress.

Step 4: Human Intervention When Necessary

- If the system detects complex psychological issues or severe negative emotions (such as deep depression), the student is referred to a human counselor.

Step 5: Recommendations and Continuous Follow-up

- Upon completing the program, the student receives a comprehensive report highlighting psychological and emotional changes, along with recommendations for maintaining self-confidence.

7.6- Practical Application Scenarios

Example 1: A Student Struggling with Public Speaking Anxiety

- The student logs into the application and expresses nervousness about speaking in front of peers.
- The system detects indicators of low self-confidence and negative emotional responses through text analysis.

- The chatbot suggests gradual strategies, such as speaking in front of small groups first before expanding to larger audiences, while monitoring emotional responses.
- After some time, the system follows up with the student, analyzing emotional progress and providing additional recommendations to further boost confidence.

Example 2: A Student Facing Difficulty in Choosing a Major

- The student feels uncertain between two different majors, causing emotional distress.
- The system guides her through a series of deep questions inspired by Carl Rogers' Self-Theory to analyze her emotional state and explore her true interests.
- AI analyzes her responses and emotional indicators, then suggests relevant resources and guidance to help her make a confident and psychologically comfortable decision.
- One month later, the system follows up to assess her emotional and psychological satisfaction with the chosen major.

7.7-Application Challenges and Solutions

Table 1. Application Challenges and Solutions

Challenge	Proposed Solution
Students' reluctance to use AI in counseling	Raising awareness about the system's effectiveness and incorporating a supportive human element.
AI's limitations in understanding complex psychological issues	Integrating sentiment analysis techniques and referring complex cases to human counselors.
Accuracy of psychological assessment: AI may struggle to analyze emotions accurately, leading to incorrect conclusions.	Enhancing AI algorithms with continuous training and validation to improve accuracy.
Human vs. AI interaction: Over-reliance on AI may weaken the human connection between students and counselors.	Maintaining a hybrid model that ensures balanced interaction between AI and human guidance.
Privacy and data protection concerns	Implementing strict protocols to safeguard user data and ensure confidentiality.

Source: Prepared by the researcher

7.8-Future of the Model and Development Recommendations

- Expanding the target audience to include school students, employees, and other individuals in need of psychological support.
- Integrating more advanced technologies, such as artificial emotional intelligence, to enhance interaction accuracy.
- Developing a sustainable business model through collaboration with universities and psychological support centers.

8.-Conclusion :

This study presented a theoretical framework for integrating artificial intelligence into psychological counseling, based on scientific foundations and modern counseling theories. It aimed to explore the potential of utilizing intelligent technologies, such as chatbots and sentiment analysis, to provide more precise and flexible counseling services. This framework opens new horizons for developing counseling services by enhancing AI systems' responsiveness to users' needs and improving the effectiveness of counseling interventions, with a particular focus on emotional and psychological assessment as a fundamental element in adjusting and tailoring counseling responses with greater accuracy and personalization.

In light of this framework, it is suggested to develop more integrated future models that consider the psychological and emotional aspects of users while ensuring privacy and adherence to ethical standards. Future studies are recommended to examine the accuracy and efficiency of emotional and psychological assessment in these systems across different contexts and explore ways to enhance AI interaction with counselees based on their emotional responses. Adopting these technologies in a well-planned manner could lead to a significant shift in psychological counseling, expanding service accessibility and improving quality, while ensuring a deeper understanding of counselees' emotional states and providing interventions that are more aligned with their evolving psychological needs.

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