

UTILIZATION OF AI TO SUPPORT THE DIAGNOSIS OF EMOTIONAL DISORDERS IN COUNSELING

Wanda Raihana Fadila¹, Shindi Erka Fitri², Meisya Puri Azzahra³, Sabarrudin⁴

¹²³⁴UIN Sjech M. Djamil Djambek Bukittinggi and email wandaraibana2608@gmail.com

Submission : May 26, 2024

Revised : June 01, 2024

Accepted : June 04, 2024

Published : June 11, 2024

Abstract

In accordance with the development of the times, of course, in order to make good use of guidance and counseling, you can use AI (Artificial Intelligence) to help in solving problems owned by clients. One of the problems mentioned is about emotional disorders that have recently been experienced by many individuals. Emotional disturbances are a serious problem in a person's development. In the United States, parents of 1,500,000 children and adolescents have children who have emotional problems. In 2003 in a survey of the Indonesian Mental Health Federation (FeKMI) there were results in 10 major cities in Indonesia, namely Medan, Jakarta, Bandung, Padang, Surabaya, Semarang, Yogyakarta, Ujung Pandang, Banjarmasin and Denpasar showed that 54% of teenagers had fought, 87% lied, 28% thought violence was normal and 8.9% had tried drugs. The purpose of this study is how effective the use of AI to support the diagnosis of emotional disorders in counseling. This research was conducted with a qualitative approach with a type of literature study, namely a method with data collection by understanding and studying theories from various literature related to the research. This approach was chosen because it provides a more in-depth explanation of how to use AI to support the diagnosis of a person's emotional disorder in counseling by understanding, and studying theories both from books, journals and existing research. Based on literature studies, it can be understood that the use of AI to support the diagnosis of emotional disorders in counseling is not entirely effective in the use of AI such as applications and websites in diagnosing emotional disorders and conducting counseling because counseling services still require professional counselors in directing clients and assisting clients in solving problems.

Keywords : AI, Emotional Disorder, Counseling.

1. Introduction

In this modern era, which is commonly called the digital era where everything good at work, school or other activities has used modern tools to help in carrying out these activities in one's daily life. This modern tool called AI (Artificial Intelligence) or can also be called Artificial Intelligence is a branch of computer science that has been widely used by many people today. In accordance with the times, of course, in order to make good use of guidance and counseling, you can use AI (Artificial Intelligence) to help in solving problems owned by clients.

One of the problems mentioned is about emotional disorders that have recently been experienced by many individuals. Emotional disturbances are a serious problem in a person's development. In the United States, it is found that parents of 1,500,000 children and adolescents have children who have emotional problems (Juliani & Wulandari, 2022). In 2003 in a survey of the Indonesian Mental Health Federation (FeKMI) there were results in 10 major cities in Indonesia, namely Medan, Jakarta, Bandung, Padang, Surabaya, Semarang, Yogyakarta, Ujung Pandang, Banjarmasin and Denpasar showed that 54% of teenagers had fought, 87% lied, 28% thought violence was normal and 8.9% had tried drugs.

Emotional disturbance is a condition that indicates a person is experiencing emotional changes. Ongoing emotional changes can develop into an abnormal state. The legal basis for emotional disturbances is explained in Q. S Al A'raf verse 150:



وَلَمَّا رَجَعَ مُوسَى إِلَى قَوْمِهِ غَضْبَانَ أَسِفًا قَالَ بِئْسَمَا خَلَفْتُمُونِي مِنْ بَعْدِي أَعَجَلْتُمْ أَمْرَ رَبِّكُمْ وَأَلْقَى الْأَلْوَحَ وَآخَذَ بِرَأْسِ أَخِيهِ يَجُرُّهُ إِلَيْهِ قَالَ ابْنُ أُمِّ إِبْرَاهِيمَ اسْتَضَعْفُونِي وَكَادُوا يَقْتُلُونَنِي فَلَا تُشْمِثْ بِي الْأَعْدَاءَ وَلَا تَجْعَلْنِي مَعَ الْقَوْمِ الظَّالِمِينَ

When Moses returned to his people in a state of anger and sorrow, he said, "What a terrible thing you did during my departure! Do you want to precede your Lord's promise?" Moses threw the lauh-lauh (Torah) and grabbed his brother (Aaron) by the head while pulling him towards him. Aaron said, "O son of my mother, these people have considered me weak and almost killed me. Therefore, thou shalt not make me (in thy sight) with the common people.

According to Wery & Cullinan, emotional disorders are divided into several parts, namely, the first is the inability to learn which cannot be determined the cause of the inability by intellectual, sensory, or health factors. The second part is the ability to establish or maintain satisfactory interpersonal social relationships. The third emotional disorder is a type of behavior or feeling unhappy or depressed, the fourth is an emotional disorder with an unhappy mood or depression, the fifth is an emotional disorder with a tendency to develop physical symptoms or fears related to personal problems.

Based on research conducted by Juliani & Wulandari,(2022) entitled "Efforts to Declinate the Prevalence of Suicide Due to Depression by Empowering Artificial Intelligence Through the Seboost Application" it was found that the Seboost application can be a solution in dealing with mental problems more practically because it can be accessed by anyone, anytime, and anywhere. In addition, based on competitor analysis that has been conducted by researchers, when compared to other mental health applications, Seboost is considered to have a much more complete mental health service feature so that it can then be expected to increase the chances of individuals getting help in dealing with depression cases and then improving their function.

Based on research conducted by Riskiani,(2023) entitled "Expert System for Early Diagnosis of Mental Health Using the Web-Based Certainty factor Method" which this study produces an expert system to independently diagnose mental health disorders experienced early with inputted signs and symptoms, and can display solutions to mental health disorders experienced. This system will be developed and implemented with UML (Undefined Modeling Language), PHP and MySQL. This expert system application is to help make it easier for the general public or health workers to detect mental health disorders early, which can provide provisional results for a percentage of results. What percentage of web users are suspected of having Schizophrenia, PTSD, Depression, Bipolar, emotional disorders and Paranoids.

Based on research conducted by Utami et al.,(2016)entitled "Design and Build an Expert System Application for Diagnosis of Emotional Disorders in Children Based on Website Applications" where this research resulted in an expert system application for diagnosing emotional disorders in children where this website-based application has the core feature of being able to diagnose emotional disorders through gejala given by the system in the form of questions to users. Testing of the system with the aim of data validity was carried out by four experts in the field of mental health, concluding that the symptoms that lead to an emotional disorder are appropriate, but it is too early if the application is implemented directly and used, because the limits of the disorder still have too broad a scope.

From some of the research above, it emphasizes that the use of Artificial Intelligence (AI) that creates an application can help deal with mental disorders more practically because it can be accessed by anyone, anytime, and anywhere. And at the time of this AI counseling can help clients in conducting tests for their mental disorders, especially on emotional disorders. The purpose of this study is how effective the use of AI to support the diagnosis of emotional disorders in counseling.

2. Method

This research was conducted with a qualitative approach with a type of literature study, namely a method with data collection by understanding and studying theories from various literature related to the research. This approach was chosen because it provides a more in-depth explanation of how to use AI to support the diagnosis of a person's emotional disorder in counseling by understanding, and studying theories both from books, journals and existing research. Data collection techniques in this study by finding sources and reconstructing from various sources such as books, journals, and existing researches. Techniques used in analyzing more than one theoretical source, several data analysis techniques, and involving more researchers in processing research results (Adlini et al., 2022)

3. Results and Discussion

The most important area of science today and in the future is artificial intelligence. This artificial intelligence is a field of computer science that is indispensable in applying intelligent computers. The tools needed in this field have been developed during the 20th century. Artificial intelligence, which in English is Artificial intelligent (AI), has a meaning where "intelligence" comes from the Latin "intelligo" which means "I understand". So that the meaning of intelligence is a reliability in understanding and carrying out actions. Artificial intelligence appeared in the 1940s, although in Ancient Egypt it was known that this development was in the ability of computers to imitate human intelligence. (Indah, n.d.)

Artificial Intelligence (AI), or in Indonesian known as Artificial Intelligence, is a branch of computer science that aims to develop systems and machines capable of performing tasks that usually require human intelligence. AI involves using algorithms and mathematical models to enable computers and other systems to learn from data, recognize patterns, and make intelligent decisions.

Artificial intelligence (AI) or artificial intelligence in general refers to the ability of computers or machines to perform tasks that usually require human thinking. The Navy encompasses a wide range of technologies and methods designed to allow computers to learn from experience, imitate human actions, and perform tasks that require understanding, reasoning and adaptation.

In the context of AI, there are several important concepts such as machine learning, neural networks, natural language processing, and many more. AI development has made a huge impact in areas such as voice recognition, facial recognition, autonomous cars, medicine and many more. (Eriana & Zein, 2023) From several notions of Artificial Intelligence (AI), it can be concluded that Artificial Intelligence (AI) is the ability of computers that are able to imitate human intelligence by using algorithms and mathematical models to allow computers and other systems to learn from data, recognize patterns, and make intelligent decisions.

The benefits of artificial intelligence (AI) are vast, ranging from increasing efficiency in business processes to improving service quality in the health and education sectors. But broadly speaking, AI is useful for automating tasks without human intervention with the aim of saving costs, workers, time, and can reduce the risk of errors due to human actions. AI can also assist in handling complex challenges such as massive data analysis, pattern recognition and accurate predictions.

Artificial Intelligence (AI) is a technology that allows machines to perform tasks that normally require human intelligence. AI has become an important part in various fields, including business, healthcare, education, and others.

Here are some of the benefits of AI that we can feel:

a. Increase efficiency

AI can help improve efficiency in various aspects of life. For example, in business, AI can be used to automate processes that would normally take time and human labor, such as data processing, market analysis, and inventory management. Thus, companies can save time and costs, as well as increase productivity.

b. Increase security

AI can be used to improve security in a variety of fields. For example, in cybersecurity, AI can be used to detect attacks and prevent security threats. In addition, AI can also be used in physical security, such as video surveillance and facial recognition to identify suspicious people.

c. Improve quality of life

AI can help improve our quality of life by providing solutions to a variety of complex problems. For example, in healthcare, AI can be used to diagnose diseases more accurately and quickly, as well as assist in the development of new drugs. In addition, AI can also be used in education to provide learning tailored to individual needs.

d. Improve user experience

AI can be used to improve user experience in a variety of applications and services. For example, in the hospitality industry, AI can be used to provide recommendations tailored to user preferences, as well as improve efficiency in booking and customer service. In addition, AI can also be used in the entertainment industry, such as games and movies, to create more realistic and engaging experiences.

e. Improving human intelligence

AI can be used as a tool to improve human intelligence. For example, in education, AI can be used to provide assistance in learning, such as a virtual tutor who can provide additional explanations and exercises. In addition, AI can also be used in research and development to assist humans in finding solutions to complex problems.

Emotional disorders are defined as conditions that characterize emotional responses that are too strong or too weak for a given situation. Emotional disorder is a disorder of irrelevance, damage, displeasure, disorganization and ineffective behavior, for example not being able to feel what others feel, sometimes laughing alone, crying or getting angry for no reason, often the anger is uncontrollable, especially if it does not get what it wants so that it becomes aggressive and destructive (Aquarismawati, 2005)

Emotional disorders refer to the presence of one or more of the following characteristics: Inability to learn to control emotions that are or cannot be explained based on intellectual, sensory and health factors, Inability to establish interpersonal relationships with friends or teachers, Feelings that do not fit in with others in general, Unhappy mood or feelings of pressure and tendency to develop physical symptoms or fear related to personal or school problems.

An emotional disorder is a condition that identifies a person experiencing emotional changes that may lead to a psychological state. One sign of emotional distress is a decline in individual functioning in the family, work or education, as well as personal or group areas, acquired through unconscious conflicts that cause concern.

Emotional disorders have several symptoms (Goleman, 2000) :

1. Depression. Symptoms include feeling sad, apathetic or lacking interest in previously enjoyable activities, being socially closed or withdrawn, pessimistic or hopeless, irritable, negative passive self-view, lack of energy or always looking tired, complaining about the state of his body, poor or excessive appetite, enuretic or encopretic, decreased school performance, willingness to go to school.
2. Anxiety. Excessive suffering when separated from the primary caregiver, constant worry, reluctance to attend school, complaining of his own physical state, anxiety, irritability, poor concentration, fatigue, responses made seem better, bigger, or worse that are surprising to others, very vigilant.
3. Conduct Disorders. Starting a fight, disobedient, rebellious, damaging property, bullying other children, arguing, verbally reproaching others, ignoring rules, conflict with authority, going against orders or directions, rebellious, engaging in antisocial behavior, often skipping school.

Based on the discussion above, it can be concluded that the symptoms of emotional disorders include depression, anxiety and behavioral disorders.

Counseling according to the big dictionary Indonesian is the provision of expert guidance to someone using psychological methods and so on. Counseling is also called a direction or counseling. The term counseling comes from the word "counseling" is a word in the mashdar form of "to counsel" etymologically means "to give advice" or give advice and advice. Counseling is a message given to individuals in their lives by interviews and in a way that is appropriate to the circumstances faced by the individual to achieve his or her well-being.

Counseling is defined as the most basic set of activities of guidance and efforts to help clients face-to-face with the aim that clients can take responsibility for specific problems.(Winkel, 2021)

Counseling is a process of providing assistance that takes place through interviews in a series of direct and face-to-face meetings between the supervisor and clients / students with the aim that students are able to gain a better understanding of themselves. (Walgito, 2004) Counseling is an effort of assistance provided by a trained and experienced mentor, to individuals who need it, so that the individual develops his potential optimally, is able to overcome his problems, and is able to adjust to the ever-changing environment.

From the various understandings above, it can be concluded that counseling is an effort to help clients well face-to-face with the aim of providing solutions to problems faced by clients so that they better understand their own identity and become a better person and there is a sense of wisdom. Counseling aims to help all students to obtain normal development, have a healthy mentality, and acquire basic life skills or in other words help students so that they can achieve their developmental tasks.

The results of the study found that in this day and age, which is the era of the digital era, everything can use technology. Even now there is technology that helps a client in counseling. So practical and easily accessible to many people and can provide assistance as soon as possible to clients. As previous research has been discussed that it will be quite effective to use applications or websites in helping clients solve their problems. Likewise for those who suffer from emotional disorders because now there are websites that can help clients detect how many percent of clients have emotional disorders.

But according to the author, if you always rely on and utilize AI technology such as applications and websites are not so effective, of course, it requires a professional counselor in directing clients and helping clients in solving their problems and if you use technology, of course, you must have proficiency and be good at using it. So in utilizing AI technology in counseling and diagnosing emotional disorders it will not be entirely effective but will also later require a counselor in helping and solving problems from clients.

4. Conclusion

Based on literature studies, it can be understood that the use of AI to support the diagnosis of emotional disorders in counseling is not entirely effective in the use of AI such as applications and websites in diagnosing emotional disorders and conducting counseling because counseling servers still require professional counselors in directing clients and assisting clients in solving problems.

References

- Adlini, M. N., Dinda, A. H., Yulinda, S., Chotimah, O., & Merliyana, S. J. (2022). Metode penelitian kualitatif studi pustaka. *Edumaspul: Jurnal Pendidikan*, 6(1), 974–980.
- Aquarisnawati, P. (2005). *Deteksi Gangguan Emosi Pada Anak Autisma Melalui Bender Gestalt*. Skripsi.
- Eriana, E. S., & Zein, A. (2023). *Artificial Intelligence (AI)*.
- Goleman, D. (2000). *Emotional Intelligence*, Jakarta: PT. Gramedia Pustaka Umum.
- Indah, S. (n.d.). *BUKU AJAR KECERDASAN BUATAN (ARTIFICIAL INTELLIGENCE)*.
- Juliani, I. R., & Wulandari, I. S. M. (2022). Hubungan Tingkat Kecanduan Gadget Dengan Gangguan Emosi Dan Perilaku Remaja Kelas 8. *Jurnal Keperawatan BSI*, 10(1), 30–40.
- Riskiani, D. (2023). SISTEM PAKAR DIAGNOSA DINI MENTAL HEALTH MENGGUNAKAN METODE CERTAINTY FACTOR BERBASIS WEB. *Jurnal Informatika Multi*, 1(6), 594–600.
- Utami, F. N., Satoto, K. I., & Martono, K. T. (2016). Rancang Bangun Aplikasi Sistem Pakar Diagnosis Gangguan Emosional Pada Anak Berbasis Aplikasi Website. *Jurnal Teknologi Dan Sistem Komputer*, 4(1), 109–123.

- Walgito, B. (2004). *Bimbingan dan konseling di sekolah*. Yogyakarta: Andi, 5.
- Winkel, W. S. (2021). *Bimbingan dan konseling di institusi pendidikan*.