



Effectiveness of Using the Artificial Intelligence in Behavioral Disorders Management Among the Third-Grade Primary Students

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ABSTRACT

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Purpose: This study aimed to identify both effectiveness of artificial intelligence in treating behavioral disorders among third-grade students, and the differences between males and females in being affected by the effectiveness of artificial intelligence. **Method.** The quantitative data was collected from primary sources and the sample was based on 30 respondents. This research also used t-test and ANOVA method.

Findings. This research concluded there are statistically significant differences between the mean scores of the experimental and control groups after applying the artificial intelligence strategy (posttest) in favor of the experimental group in the post test. It was also found that the artificial intelligence strategy succeeded in reducing the level of behavioral disorders among third-grade students; there were no significant differences between the averages of third grade students at the level of treatment of behavioral disorders that were attributed to the gender variable. **Implications to Research and Practice** This research is significant from both theoretical as well as practical perspective related to the behavioral disorder management.

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Introduction

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Artificial intelligence (AI) plays a key role in the lives of billions of people. Sometimes unnoticed, but often with serious consequences (Mazkour, 2021), it changes our societies and challenges what it means to be human charitable (Al-Khairi, 2021). AI can support millions of students to complete primary education (Lutfi, 2021), most urgently, helping us deal with multiple advantages, and these technologies also generate risks and challenges, deriving from the harmful use of technology or deepening inequalities and divisions (Ali & Al Jawir, 2022). Talking about AI applied to health may seem somewhat futuristic. However, this sophisticated technology is already being successfully applied to help people around the world solve their problems and achieve more accurate diagnostics in less time. AI relies on data collection, analysis and interpretation to find viable solutions to help people who do not have their best moment (Al-Hawamdeh & Abu Nawas, 2020).

There are signs that allow us to predict a potential mental health problem. However, until very recently, they could not be detected, let alone treated for an early diagnosis or viable treatment to help those who experienced these problems. Fortunately, many AI investigations applied to mental health show that this tool brings many benefits in combating an increasingly visible problem in our society. Hence, the need to go into this kind of progress, applying thriving technology to make life a little easier for those who need it. No doubt, the students are also social beings. This is why it is not surprising that some research on artificial intelligence and mental health has focused, for example, on developing algorithms to determine suicidal tendencies in social networks and how to get the help they need from those who show them (Al Shanjiti, 2022).

The AI and mental health go hand in hand in creating chatbots designed to help people who need specialized help in a personalized way (Al-Enaquei, 2020). Such services are available 24x7, offering solutions and simultaneously analyzing interactions to assess whether the situation requires the participation of a specialist as a matter of urgency. Moreover, knowing the possibilities of AI in mental health problems is necessary to provide the best application of this technology. It is necessary because the existing body of literature is silent about these factors that are addressed by this research work.

Based on the foregoing, the main question of the study was: what is the effectiveness of AI in treating behavioral disorders in elementary third graders? The objective of this research is divided into four folds. The first is to recognize the effectiveness of AI in treating behavioral disorders in third grade primary students. Secondly, this research is designed to recognize differences between males and females in the effectiveness of AI in the treatment of behavioral disorders in third grade primary students. Thirdly, this research is initiated to measure the discrepancies in educational attainment level of impact on the effectiveness of AI in the treatment of behavioral disorders in third grade primary students. Finally, this research is designed to recognize the impact of AI exposure in the treatment of behavioral disorders in third grade primary students.

This research is significant because artificial intelligence has long left the specter of science fiction to infiltrate our lives, and although it is still at a very early stage, it is called to the star in a revolution like that created by the internet. Its applications in multiple sectors - such as health, finance, transport or

education, among others - prompted the European Union to develop its own robotics laws. Furthermore, this severe interruption of artificial intelligence and robotics in our society has led international organizations to consider the need to regulate their use and employment, thereby avoiding potential problems that may arise in the future.

Accordingly, this research is important as it identifies risk indicators in the development of the most important behavioral disorders to establish sufficient vigilance about the appearance of early symptoms. There is a clear gap in the literature because the earlier studies had not tested this phenomenon in research. Moreover, differentiation between typical behaviors of a child's evolutionary development and those indicating a disorder to implement an early diagnosis approach. In the same way, this study has used useful questionnaires as screening tools or to supplement information from clinical interview. Finally, this research is conducted to implement an appropriate initial treatment approach in practice.

Literature Review

The subject of artificial intelligence is expanding quickly and has the potential to completely change how behavioral problems are treated. Existing literature looked into the use of AI for a number of management strategies for behavioral disorders, including diagnosis, therapy, and monitoring (Noorbakhsh-Sabet et al., 2019). One area where AI has potential is diagnosis. Machine learning algorithms can be trained to recognize behavioral data patterns that point to illnesses. In places with a shortage of qualified mental health experts, the application of AI in diagnosis has the potential to speed up and improve the precision of diagnoses (Miller & Brown, 2018). The area where AI is being investigated is treatment.

AI algorithms can be used to personalize treatment regimens for specific individuals and predict the effectiveness of various behavioral disorder treatments. The most efficient therapies for depression and other mental health issues can be found by using AI algorithms to examine patterns in patient data (Siontis et al., 2021). AI in healthcare has the potential to greatly enhance patient outcomes while cutting down on the time and expense of traditional trial-and-error methods of therapy. Another area where AI has the potential to have a big influence on the management of behavioral disorders is monitoring. AI algorithms can be used to keep an eye on patients for symptoms that may be emerging or signals of relapse (Contreras & Vehi, 2018).

In order to identify early indicators of a depressive relapse, wearable device data obtained from patients is also analyzed using AI. By enabling early intervention, the application of AI in monitoring has the potential to enhance patient outcomes while also lowering the cost and resources needed for continued observation (Bi et al., 2019). The treating of behavioral problems with AI is a rapidly expanding field that has a lot of potential. The preliminary results are promising, even though there is still more to be done to fully realize AI's promise in this area. It is anticipated that AI will play a bigger part in the detection, management, and monitoring of behavioral problems as AI technology develops (Guo et al., 2020).

According to Mazkour (2021) AI has become an integral part of human life. It can

be said that it is the next reality that will shape the future and radically change human life, which will undoubtedly have implications and repercussions for education in all its stages. This leads us to pose the following problems: how can AI research data be leveraged to establish a smarter future education? and how can technology be transformed from being a demolition breadwinner for education and education, transformed into a tool for developing the mind, not for its comfort and laziness, and what challenges will education face in the future in the light of AI research and knowledge society?

Al-Khairi (2021) uncovered that the most prominent theories and ethical trends interpreted for AI ethics, and then describing the Islamic foundations of AI ethics and contemporary applications - and using the documentary descriptive curriculum (analytical) - among its most notable findings. AI is a milestone in civilization and a need to keep abreast of cultural development. AI has great advantages and contributions in helping people in various fields, most urgent and needy, such as health, medicine, education, security, and industry. Furthermore, contemporary philosophical vision dealt with ethics associated with science and artificial intelligence, based on the philosophy of virtue morality, utility morality or duty morality, and was based on arguments that attempted to neutralize religion as a component of ethics and science.

In its ethical framework, the Islamic perception of artificial intelligence is based on doctrine, sharia and morality as the basis of science and its cultural outcomes. The ethics of artificial intelligence in the Islamic vision as defined in this study reflects the principles and premises that govern the course of human behavior and define the ethical frameworks and references of science and civilization, religiously, values and civilization, and are based on faith in God and observance of the legitimate purposes of Islam's religion, and the consideration of higher human and civilizational values for the preservation of human dignity. Furthermore, it promotes values related to regulating its uses, including God's strength, human dignity and privacy, honesty and transparency, justice and equity, and responsibility and accountability.

Mengi and Malhotra (2022) reported a subtype of developmental neurological disorders (Ndes) characterized by social and behavioral distortions, virtual knowledge, biological understanding and advanced tools are all from Western countries. Many research have been carried out that examined the accuracy of the performance of traditional social and behavioral disorders (SBD) tools developed in Western culture. However, little information is available on low- and middle-income countries. In middle-income countries such as India, there is a lack of resources and trained professionals and a lack of knowledge regarding the effective tools of a particular target group because most cases are not detected and diagnosed until adolescence. Furthermore, this research work explains the systematic study and analysis of various traditional and hazy-based expert systems introduced between 1925-2021. By this study, PRISMA guidelines were used to select articles published on Science Network, SCOPUS, and EMBASE to identify relevant Indian studies. A total of 148 sheets are considered influential to anticipate SBD using traditional or mysterious-based techniques. This survey discussed the work done by different researchers, highlighting limitations in current literature, and comparing the

performance of tools based on different criteria such as accuracy, sensitivity, quality, and target audience, along with their pros and cons. Some investigations are designed, and solutions are explored. The results of this study indicated that most validated SBD tools offer many barriers for use in the Indian population.

Abd-Alrazaq et al. (2022) research successfully exploited in the diagnosis of many psychiatric disorders. Many systematic reviews summarize evidence of the accuracy of AI models in diagnosing various psychiatric disorders. This comprehensive review aims to compile the results of previous systematic reviews of the performance of AI models in the diagnosis of psychiatric disorders. To determine the relevant methodological reviews, the researchers searched 11 electronic databases, checked the references list for the included reviews, and examined the reviews that cited the included reviews. Also, two auditors independently selected the relevant audits, extracted the data from them and valued their quality.

This research compiled the data extracted using the narrative approach. This research has included 15 systematic reviews of 852 citations identified. In accordance, reviews covered assessed the performance of AI models in diagnosis of Alzheimer's disease (n = 7), mild cognitive impairment (n = 6), schizophrenia (n = 3), bipolar disease (n = 2), autism spectrum disorder (n = 1), OCD (n = 1), and psychotic disorders (The performance of AI models in diagnosing these psychiatric disorders ranged from 21% to 100%. AI technologies offer great promise in the diagnosis of mental health disorders. Accordingly, the studies reported performance measures paint a vivid picture of a bright future for AI in this area. Also, healthcare professionals in this area should begin with caution and awareness in exploring the opportunities of AI-based tools for their daily routines. It will also be encouraging to see more descriptive analyses and more systematic reviews of the performance of AI models in diagnosing other common psychiatric disorders such as depression and anxiety.

Ćosić et al. (2020) reported that AI in predicting mental health disorders caused by the COVID-19 pandemic among health care workers, the 2019 coronavirus pandemic (COVID-19) and its immediate consequences pose a serious threat to the mental health of health care workers (HCWs), who may develop high rates of anxiety and depression. Therefore, the aim of this published work was to address the problem of prevention of mental health disorders experienced by health care workers by early prediction of individuals at risk of developing chronic mental health disorders later due to severe distress during the COVID-19 pandemic. The work proposed a methodology for predicting mental health disorders caused by the epidemic, which includes; objective assessment of the severity of HCWs' exposure to stress, based on information from hospital archives and clinical records, self-assessment of stress during the COVID-19 pandemic suffered by health care workers and their related psychological characteristics, design and develop multimedia stimulation models suitable for optimally developing specific neurophysiological reactions, objective measurement and calculation of relevant neurophysiological prediction features based on health-care workers' interactions; and phase, and statistical analysis and machine learning of highly heterogeneous data sets obtained at previous stages. The proposed methodology aimed to expand the self-report predictions traditionally used

for mental health disorders by more objective measures, which are in line with recent literature on AI-based predictive modeling. This approach generally applies to all those who have experienced high levels of stress during the COVID-19 pandemic and may help mental health practitioners make diagnoses faster and more accurately.

The results of intervention reports contain many elements of information that need to be extracted and are expressed in a very variable and special language used in research reports to transmit information, making it impractical to develop algorithms to extract all information with near-complete accuracy. However, statistical matching algorithms along with advanced machine learning approaches created reasonably accurate predictions of results from incomplete data. The findings augur well for AI to achieve the goal of predicting the outcomes of behavior change interventions, based on information that is automatically extracted from intervention assessment reports. In this way, this information can be used to train knowledge systems using machine learning and inference algorithms.

The above discussed studies will change the world's artificial intelligence, but it remains a mystery to many people. Artificial intelligence is a technology so broad and revolutionary that it is difficult to give an accurate definition. It can be considered a branch of computing field, whose goal is to create machines capable of performing tasks that require traditional human intelligence. However, AI is a multidisciplinary science with multiple approaches. The study [Mac Aonghusa and Michie \(2020\)](#) agreed that machine learning and deep learning are methods used in different social institutions in the future.

Theoretical Framework of the Study

The diagnosis of behavioral disorders is one of the many problems that hampers society's ability to cope with these disorders: diagnosis of these health problems requires specialists who are widely available around the world. The development of machine learning methodology to facilitate the assessment of children's mental health in the third grade of primary school can provide additional much needed means to help detect, prevent and treat these health problems ([Al-Najjar, 2019](#)).

To develop AI models sensitive to mental health, it was through the presence of data on personal conditions and habits, sleep duration and physical activity. Specifically for this study, these questionnaires also include social, demographic and behavioral data, such as individuals' mood and feelings, and biological data include MRI images to scan participants' brain ([Milbari, 2017](#)). The artificial intelligence can provide much-needed assessment tools ([Noir, 2022](#)), human interaction will remain necessary, and that mental health professionals will have to carefully interpret and contextualize the results of assessments - a case-by-case basis and through social interaction, whether obtained through machine learning ([Tiagi, 2018](#)). One type of AI is the systems that think like humans, and they automate activities such as decision-making, problem-solving, and learning. An example is synthetic neural networks ([Bakr, 2019](#)). Accordingly, AI systems are those which try to mimic human behavior rationally, such as artificial intelligence ([Darlington, 2022](#)).

Behavioral disorders attract increased interest in pediatric medicine due to their high frequency and the importance of early diagnosis ([Aziz, 2009](#)). In addition to

behavioral symptoms, it refers to dysfunction in some of the child's contextual areas: school, family and social. Although, there are many circumstances that can produce disruptive behaviors, in this review only cases that are expressed about the diagnoses identified in the international classifications of psychiatric disorders are considered.

Children sometimes argue, act aggressive, act angrily or defiantly with adults. [Al-Khalidi and Al-Omran \(2022\)](#) reported behavior disorder can be diagnosed when such disruptive behaviors are unusual for the child's current age, persist over time, or are severe. Since, behavioral disorders involve misconduct and acting in undesirable ways with other people, they are sometimes called external disorders.

Behavior disorder is diagnosed when a child exhibits a persistent pattern of aggression towards others, and serious violations of social norms and norms at home, school and with peers ([Abdul Hamid, 2013](#)). These violations may involve a breach of the law and, as a result, they are arrested. Children with behavioral disorder are more susceptible and may have difficulty getting along with their peers.

The reasons for of behavioral disorders are poorly defined because there are multiple accident factors. The most studied are mood, sex, genetic factors, social and family variables. Pathogenesis depends on multiple variables that converge, interact and reinforce each other ([Idris, 2016](#)). Some depend on the internal factors or biological variables of the individual and others on the external characteristics or social or family context. Mood is considered as the underlying factors that shape the child's or adolescent's personality. Some mood properties, such as high or low friendly interaction, can help develop behavior disorders. Furthermore, inheritance is considered as the high-inheritance behavioral disorders. No gene has been identified with direct effect; therefore, the effect is likely to appear due to the interaction of many genes with each other and their interaction with environmental factors. Accordingly, social and family variables are important to have a pathogenic effect of parental antisocial or perverse behavior, cruel or inconsistent family discipline, drug use by friends or sexual abuse.

The diagnosis for behavioral disorder is basically clinical. Diagnostic standards for ODD and DD are found in major international classification systems. Some tests and questionnaires can help identify existing symptoms. To determine the diagnosis, it is necessary that the symptoms presented by the patient correspond to the symptoms identified in an international classification of psychiatric disorders. The two most important classifications are: the International Classification of Diseases, in its tenth version (ICD-10), and the Diagnostic and Statistical Manual of Mental Disorders, in its tenth revised version (DSM-IV-TR).

It is important that the treatment starts early ([Ibrahim, 2018](#)). Treatment is more effective if it is tailored to the needs of both the child and the family. The first step in treatment is to speak with a healthcare provider ([Ahmed, 2016](#)). A comprehensive assessment by a mental health professional may be needed to determine the correct diagnosis ([Kadim, 2016](#)). Some signs of behavioral problems - such as not following the rules at school - may be associated with learning problems that may require additional intervention. For young children [Al-Enezi, Al-Saeed, and Al-Jasser \(2019\)](#) reported that treatment with the strongest scientific evidence is parental training in

behavioral therapy. In this training, the therapist helps parents learn effective ways to respond to their children's behavior and strengthen the relationship between parents and children. For school-age children and adolescents, effective treatment that is often used is a combination of training and treatment that includes the child, family, and school.

Methodology

- *Research Design*

This study relied on the experimental curriculum in a pilot and control group manner by comparing the grades of the study tool "measure of behavioral disorders of children" before and after the application of the AI strategy, and by using statistical methods and methods to reach results through which the study's objectives could be achieved.

- *Sampling and Population*

This study has been applied to a group of public and private schools - Eastern Region. As a result of the difficulty in conducting a comprehensive survey of all members of the school community, the study used the sampling method to collect study data by selecting a simple random sample of students (30 students) and divided them into two groups (control, experimental).

- *Instrument and Procedure*

The study used a measure of children's behavioral disorders (Abdul Hamid, 2013) as a study tool that includes this test (69 paragraphs). For each position, three alternatives, of which the child chooses only one alternative (what it actually does). The alternative that expresses highly disturbed behavior gives three degrees and the alternative that expresses disturbed behavior is two degrees, whereas the alternative that expresses evident behavior gives one degree, so the higher the scale, the more behavioral disorders there are and the overall mark of the test ranges from (69 - 207) degree the scale consists of four dimensions (aggressive behaviour, 36 paragraphs and withdrawal behaviour, 13 paragraphs and intransigence, 11 paragraphs and theft, 9 paragraphs).

- *Data Analysis*

This study used the SPSS statistical package program to analyze the data obtained through the study tool using alpha coefficient, t test and ANOVA. The reliability of internal consistency was calculated to ascertain the sincerity of the study tool used using the Pearson correlation coefficient, and it was found that all correlation transactions for all study tool questions were statistically significant at a morale level (0.01) that means the tool has the sincerity of internal consistency and is valid for study purposes.

Results and Discussion

- *Characteristics of study sample*

The characteristics of the research sample are reported in Table 1. This table also includes the educational attainment, frequency and gender of the total sample size

consisting of a number of 30 respondents.

Table 1

Distribution of sample study personnel according to their characteristics

Percentage	Frequency	Characteristics	Variable
50	15	Male	Gender
50	15	Female	
33.3	10	High	Educational attainment
33.3	10	Intermediate	
33.3	10	Low	

First Hypothesis: There is a positive impact of AI exposure in the treatment of behavioral disorders in elementary third grade students. To test the validity of the study's first sub-imposition, calculation of the calculation of the calculation averages and standard deviations of the scores of the study sample responses on the scale of behavioral disorders of children (see Table 2). The results are as follows:

Table 2

Computational averages and standard deviations of the scores of the study sample responses on the scale of children's behavioral disorders before applying AI strategy

Standard Deviation	Mean	Dimension of children's behavioral disorder scale
7.326	96.667	Aggressive Behaviour
3.047	35.000	Withdrawal Behaviour
2.204	29.000	Stubbornness
2.282	23.933	Theft
14.647	184.600	Total Degree

Table 3 shows the high level of behavioral disorders among third-grade primary students, which illustrates the importance of the topic addressed in the study, namely the use of AI strategy in the treatment of behavioral disorders in third-grade primary students.

Table 3

Computational averages and standard deviations of study sample response scores on the scale of children's behavioral disorders after applying AI strategy

Standard Deviation	Mean	Dimension of children's behavioral disorder scale
6.988	47.400	Aggressive Behaviour
3.047	17.000	Withdrawal Behaviour
2.204	15.000	Stubbornness
2.282	12.067	Theft
14.272	91.467	Total Degree

Table 3 shows the decrease in the level of behavioral disorders of third-grade primary students after the application of the AI strategy, which shows the effectiveness of using the AI strategy and the existence of a positive impact of the

degree of exposure to AI in the treatment of behavioral disorders of third-grade primary students, which shows the validity of the study's first sub-imposition.

Main Hypothesis: There is a statistically significant effect of using AI strategy on the treatment of behavioral disorders in third grade primary students. In order to test the imposition of the main study, the research used the experimental design known as "tribal dimensional design using two equal sets, one experimental and the other control", which was in the light of the nature of the current research, as well as similar previous research, and the research divided the research sample into two groups: the first group (experimental group) and the second group (control group).

• **Experimental design used in research**

- 1- Apply research tools in advance to the two groups before conducting the experiment.
- 2- Subjecting (experimental group) only to the independent variable (AI strategy) while (control group) was not subjected to this test.
- 3- Apply research tools remotely to both groups.

• **Verification of parametric statistical requirements**

1. Sample size is large: The size of the study sample is made up of 30 students divided into two groups: experimental and control, including the first condition of parameter.
2. The level of measurement of variables in the form of numbers: All the data of the study variables in the form of numbers, this achieves the second condition of the parameter.
3. Moderate sample distribution.

To verify the moderate distribution of the sample, a test (Kolmogorov-Smirnov - Shapiro-Wilk test) was used to test the hypothesis that the data came from a natural distribution. The results of the two tests were:

Table 4

Normality Test

		Normality Test				
Kolmogorov-Smirnova		Shapiro-Wilk				
Stat.	Frequency	Significance	Stat.	Frequency	Significance	
0.400	15	0.190	0.919	15	0.215	Control Group
0.320	15	0.270	0.907	15	0.295	Experimental Group

Table 4 shows that both Kolmogorov-Smirnova-Shapiro-Wilk are not statistical at 0.05, and this confirms that the data are moderate, and that the data come from a natural distribution, including the moderation requirement .Therefore, from the foregoing, we can conclude that the requirements for parametric data statistics have been met.

Furthermore, findings related to the imposition of the main study, which states: "There is a statistically significant impact of the use of AI strategy on the treatment of

behavioral disorders in third grade students ".To verify the validity of this assignment, the T test was used to compare the experimental and control groups in applying the AI strategy prior to the trial (tribal test) and after the trial (remote test). The results were as follows:

Table 5

Comparison of experimental and control groups before application of AI strategy (tribal testing)

P value	Tcalc	Mean	Frequency	
0.19	1.142	184.600	15	Control Group
		186.400	15	Experimental Group

Table 5 shows no statistically significant discrepancies between the average scores of the experimental and control groups before applying the AI strategy (Tribal test) where the indicator level was equal to (0.190), a value greater than (0.05), indicating that there were no statistically significant differences between the averages of the experimental and control groups before the application of the AI strategy, which shows that there was parity between the two groups before the experiment was conducted, as seen in Table 6.

Table 6

Comparison between experimental and control groups after application of AI strategy (remote testing)

P value	Tcalc	Mean	Frequency	
0.000	17.638**	184.600	15	Control Group
		91.467	15	Experimental Group

Table 6 shows statistically significant differences between the average scores of the experimental and control groups after the application of the AI strategy. Dimensional test where the indicator level was equal to (0.000) which is less than (0.05) indicating that there were statistically significant differences and this difference was in favor of the experimental group with an average grade of (91.467) versus an average rank for the control group of (184.600) from which we conclude that there are statistically significant differences between the averages of the scores of the experimental and control groups after the application of the AI strategy. The AI strategy succeeded in reducing the level of behavioral disorders of third-grade primary students, which demonstrates the validity of the main study imposition stating that "there is a statistically significant effect of using the AI strategy to treat behavioral disorders of third-grade primary students". This demonstrates the effectiveness and success of using the AI strategy in reducing and treating behavioral disorders in third grade primary students.

Second hypothesis: There are statistically significant differences at the level (0.05) between males and females in AI-influenced treatment of behavioral disorders in elementary third graders. To test the validity of the second sub-imposition, the T test was used to compare students in the third-grade primary at the level of treatment of behavioral disorders that attribute to the sex variant. The results are as follows:

Table 7

Comparison of third-grade primary students at the level of treatment of behavioral disorders attributable to the sex variable

P value	Tcalc	Mean	Frequency	Gender
0.581	-0.558	132.933	15	Male
		143.133	15	Female

Table 7 shows that there are no statistically significant differences between the average grades of third grade students in the level of treatment of behavioral disorders attributable to the sex variable, where the level of indication is equal (0.581), which is greater than (0.05), indicating that there are no statistically significant differences between third grade students' averages in the level of treatment of behavioral disorders attributable to the sex change than is. ($p= 0.05$). Among males and females affected by AI in the treatment of behavioral disorders in students in the third-grade primary, which shows that there is parity between the two groups (male and female) in the level of behavioral disorders.

Third hypothesis: There are statistically significant differences at the level (0.05) of educational attainment when influenced by artificial intelligence in the treatment of behavioral disorders in elementary third graders. To test the validity of the third sub-imposition, the ANOVA test was used to compare students of the third-grade primary in the level of behavioral disorders that attribute to the educational attainment variable (see Table 8). The results are as follows:

Table 8

Third grade primary students at the level of treatment of behavioural disorders that comfort the educational attainment variable

P value	F _{calc}	Mean	Frequency	Group
0.933	0.096	138.000	10	High
		138.300	10	Intermediate
		137.800	10	Low

Table 8 shows that there are no statistically significant differences between the average grades of third grade students in the level of treatment of behavioral disorders attributable to the educational attainment variable. The level of indication is equal to (0.933), which is greater than (0.05). This indicates that there are no statistically significant differences between the average grades of third grade students in the level of treatment of behavioral disorders attributable to the variable s third sub-imposition, which states that there are statistically significant differences at the level of ($p= 0.05$) in the level of educational attainment when influenced by AI in the treatment of behavioral disorders of third-grade primary students.

Conclusion

The effectiveness of using the AI strategy and having a positive impact on the degree of exposure to AI in the treatment of behavioral disorders in third grade students, which shows the validity of the study's first sub-imposition. Statistically significant differences between the averages of the pilot and control groups after the

application of the AI strategy. The AI strategy succeeded in reducing the level of behavioral disorders of third-grade primary students, demonstrating the validity of the main study imposition, which states that "There is a statistically significant impact of the use of AI strategy on the treatment of behavioral disorders in elementary third graders". This demonstrates the effectiveness and success of using the AI strategy in reducing and treating behavioral disorders in third grade primary students.

There are no statistically significant differences between the median of the third-grade primary students in the level of treatment of behavioral disorders that are attributable to the sex variable, resulting in the invalidity of the second sub-hypothesis, which states that there are statistically significant differences at the level of the (0.05). Among males and females affected by AI in the treatment of behavioral disorders in students in the third-grade primary, which shows that there is parity between the two groups (male and female) in the level of behavioral disorders.

There are no statistically significant differences between the average grades of third-grade primary students in the level of treatment of behavioral disorders attributable to the educational attainment variable, which shows that there is parity between the educational attainment groups at the level of behavioral disorders, as evidenced by the earlier invalidity of the study's third sub-hypothesis, which states that there are statistically significant differences at the level of behavioral disorders. Furthermore, in the level of educational attainment when influenced by AI in the treatment of behavioral disorders of third-grade primary students.

This study is significant both theoretically and practically. This research is significant because AI has long left the specter of science fiction to infiltrate our lives, and although it is still at a very early stage, it is called to the star in a revolution similar to that created by the internet. This factor was not reported by the earlier studies. Accordingly, its applications in multiple sectors - such as health, finance, transport or education, among others - prompted the European Union to develop its own robotics laws. Furthermore, this severe interruption of AI and robotics in our society has led international organizations to consider the need to regulate their use and employment, thereby avoiding potential problems that may arise in the future. Consequently, this research is theoretically and practically important as it identifies risk indicators in the development of the most important behavioral disorders to establish sufficient vigilance about the appearance of early symptoms. There was a clear gap in the literature because the earlier studies had not tested this phenomenon in research. Moreover, in implications, this research reported differentiation between typical behaviors of a child's evolutionary development and those indicating a disorder in order to implement an early diagnosis approach. Lastly, this research is conducted to practically implement an appropriate initial treatment approach. This research practically emphasizes on the effective use of psychoactive drugs when behavioral strategies do not reduce symptoms.

The studies in future are required to conduct research with longitudinal data for research findings because the behavior of the students is required to be observed by the significant findings. Furthermore, the role of effective treatment for mental disorder also should be measured by the studies in future. Accordingly, the studies in future are required to develop a framework for understanding the relationship between effective AI and its positive impact to assist the doctors for clinical treatment

of children's.

From these results, discussion and interpretation of the present study, some recommendations have been formulated as follows:

- 1- Systematic utilization of AI applications at all levels of pre-university education.
- 2- Utilize artificial intelligence in intervention to solve all psychiatric disorders of the child.
- 3- Development of school programmes in different educational stages.

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