



# Rett Syndrome and perspective of Generalization Electronic Counseling program

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## **Abstract:**

This study focuses on the development of an electronic guidance program to assist individuals with Autism Spectrum Disorder (ASD), proposed Visualization Rett Syndrome, and other neurodevelopmental disorders, with a particular emphasis on the experiences of families with special needs children. The program is intended to provide thorough assistance and tools to assist families in dealing with the difficulties connected with these diseases. This case study investigates the effectiveness and influence of the electronic guidance program on family well-being and the overall development of children with special needs. To gain insights from participating families, the study use qualitative research methods such as interviews and observations. The findings give information on the possible benefits and limitations of electronic guidance programs in improving family support systems and outcomes for people with ASD, proposed VisualizationRett Syndrome, and other neurodevelopmental disorders.

**Key words:** Rett Syndrome, Autism, Neurodevelopmental, Electronic, Program

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## 1. Introduction

The never-ending technical change in communications has been a driving force for scientific inquiry in a variety of fields. The notion of electronic guiding, which reflects the union of theoretical and practical approaches, is one of the major tendencies in the field of psychology and educational research.

The use of the term autism by (Bleuler) to describe one of the primary features of schizophrenia, and preoccupation with oneself more than preoccupation with the external environment, caused confusion from the beginning in the concept of autism. The Individuals with Disabilities

Special Education Act (IDEA) defines Autism asAutism is characterized as a developmental impairment significantly impacting both verbal and non-verbal communication, as well as social interaction, and typically manifesting before the age of three. This condition influences a child's educational performance. Additional features of autism encompass the exhibition of distinctly repetitive stereotypical behaviors, with the child often exhibiting resistance to alterations, particularly in their daily routines, and his reactions are unusual in relation to sensory experiences, and the term autism here does not apply to the

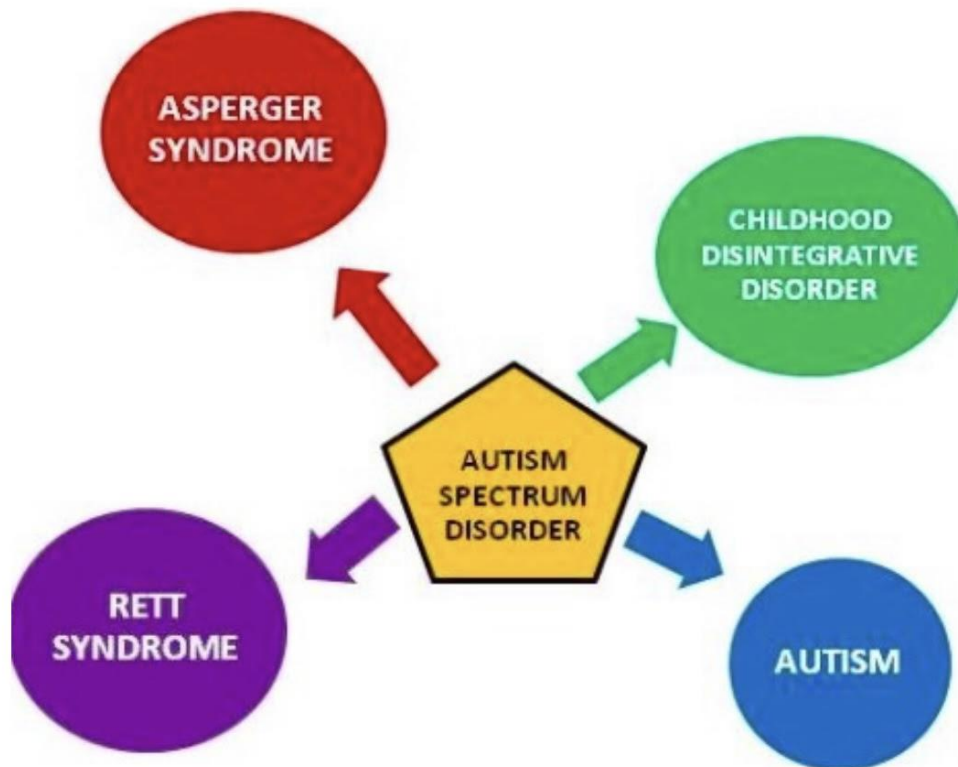


child if his educational performance has declined due to his suffering from severe emotional disturbances, Al-Sartawi et al. (2000 AD: 63). Autism has been considered a spectrum or range of disorders. Autism Spectrum Disorder (ASD) is a complicated neurodevelopmental disease marked by difficulty in social interaction, communication, and repetitive activities. Autism is classified into four

types: classic autism, Asperger syndrome, Rett syndrome, childhood disintegrative disorder. Because there is a lot of overlap that makes it difficult to distinguish between them, doctors do not currently use these terms, and call all types of autism (autism spectrum disorders) with the exception of Rett syndrome, which is a distinct genetic disorder.

Figure 1: Types of Autism spectrum Disorder.

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Rett Syndrome is an uncommon genetic illness that primarily affects females and causes significant cognitive and physical deficits. Other neurodevelopmental diseases include a variety of conditions

such as intellectual disabilities, developmental delays, and specialized learning difficulties. Individuals and families dealing with Autism Spectrum Disorder (ASD), Rett Syndrome, and other



neurodevelopmental illnesses have unique obstacles. Families with special needs children frequently struggle to get adequate information and support to help them negotiate the intricacies of these conditions. Traditional guidance programs have limitations in terms of accessibility, reach, and tailoring resources to individual needs. In response to these problems, the creation of electronic guidance programs has arisen as a potential approach to provide complete support to special-needs families and individuals. Previous research has examined a range of characteristics of guidance programs for kids with ASD, offering insightful information about

efficient intervention tactics and support networks. To include children with Rett Syndrome and other neurodevelopmental problems. However, this research should be expanded, this will enable a thorough grasp of the special requirements, difficulties, and opportunities for these families. The goal of this study is to advance knowledge of the advantages and drawbacks of electronic guidance systems for helping families with special needs children. In order to uncover important aspects that contribute to the effectiveness of electronic guidance programs and to provide recommendations for future.

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Table 1 : The difference between autism spectrum and Rett syndrome

Autism	Autism spectrum disorder (ASD), a recognized neurodevelopmental condition, is marked by challenges in social communication and interaction, along with restricted or repetitive behaviors, interests, or activities, which may also involve varying responses to sensory stimuli. The spectrum nature of autism means its manifestation is unique in each individual. For instance, some individuals with ASD may be nonverbal, while others possess strong verbal skills. Consequently, the level and type of support required by individuals on the autism spectrum can significantly vary.
Rett Syndrome.	Rett syndrome (RTT), a genetic condition predominantly observed in females, typically emerges between 6 to 18 months of age. Characterized by language and coordination impairments, as well as repetitive movements, those with RTT often experience reduced growth, challenges in walking, and a smaller head circumference. Common complications associated with Rett syndrome include seizures, scoliosis, and sleep disturbances. The severity of symptoms can vary among individuals..

This study's methodology comprises a comprehensive evaluation of existing research on guidance programs for children with ASD, proposed Visualization Rett Syndrome, and other neurodevelopmental disorders. This review includes studies on a wide range of topics, such as theoretical frameworks,

intervention strategies, and technology breakthroughs. In addition, an interactive electronic guidance program development technique is used, utilizing technological and communication platform improvements. The findings of this study are anticipated to provide crucial information about how to create an



electronic guidance program that is tailored to the needs of families with children who have been diagnosed with ASD, Rett Syndrome, and other neurodevelopmental disorders. The program strives to improve these families' overall well-being by addressing the difficulties they confront, encouraging good communication and social interaction, and supporting the development of crucial life skills. The following sections of this study will examine past studies in depth, the methods used in designing the electronic guidance program, the results gained, and the analysis and interpretation of these data. Finally, the presentation will summarize the important findings and emphasize the importance of developing electronic guidance systems to assist families with children diagnosed with ASD, Rett Syndrome, and other neurodevelopmental disorders.

## 2. Literature review

Numerous studies have been conducted to investigate the impact of early therapies on the communication, language, and social interaction skills of autistic children. A critical analysis of some of these research, as well as a synopsis of their important conclusions, is provided below. Dawson et al. (2010) evaluated the "Early Start Denver" strategy for early intervention in autistic children. The study found that children who got this intervention improved their communication, language, and social interaction abilities statistically significantly. Dawson suggests that the Early Start Denver approach can help children with autism improve their communication, language, and social interaction skills. While Dawson et al.'s initial study found significant improvements in communication, language, and social interaction abilities, it is crucial to highlight that the sample size and duration of the intervention were both

limited. This raises concerns regarding the findings' generalizability and the Early Start Denver model's long-term success. Dawson et al. (2010).

Based on the "UCLA Young Autism Project" concept, Reichow and Wolery (2009) conducted an extensive research of early intensive behavioral therapy for young children with autism. According to the study, the children who received these interventions statistically considerably increased their ability to communicate and engage with others. In order to improve the skills of children with autism, this study underlines the importance of early, intensive behavioral therapy (Reichow & Wolery, 2009). The research by Reichow and Wolery offers a summary of various early intense behavioral interventions. The methods and any biases in the research selection and interpretation must be carefully examined, though. It is challenging to get definitive conclusions on the effectiveness of various therapies due to the generally high quality of the included studies and the variety of interventions. While Kasari et al. (2006) performed an intervention in young children with autism to improve joint attention and symbolic play. The study found statistically significant gains in communication and social interaction abilities among the youngsters who took part. This study shows that therapies focusing on joint attention and symbolic play have a positive impact on the communicative and social interaction abilities of young children with autism (Kasari et al., 2006). Kasari et al. (2006) concentrated on interventions focusing on shared attention and symbolic play. While it demonstrated gains in communication and social interaction skills, it is important to note that the study design had certain limitations, including a small sample size and a lack of long-term follow-up. These limitations cast doubt on the findings' robustness and generalizability. (Reichow &

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Wolery, 2009). Jones (2016) describes how the rapid technological development in the area of communications works as a stimulus for scientific inquiry in a variety of fields. The phrase "electronic guidance" refers to one of these advanced tendencies in psychological educational research, demonstrating the convergence of theoretical and modern applied methodologies (Smith, 2018).

The current study describes a program to advance the use of technology in the applied field of guiding for people with special needs, which is one of the rising disciplines of psychological counseling. As an applied sample for the current study, the study focuses primarily on families of children with Autism Spectrum Disorder (ASD). Autism Spectrum Disorder has lately emerged as one of the world's most common disorders (Centers for Disease Control and Prevention). Autism Spectrum Disorder (ASD) is a developmental disorder defined by variable degrees of symptom severity among those affected. As a result, both the affected child's family and the case necessitate a variety of counseling models and approaches that reflect the disorder's complex nature (Johnson et al., 2015).

For a long time, experts have been perplexed by this disease, seeking a clear explanation for the ailment. Recent scientific research has narrowed the scope of investigation, shedding more light on genetic disorders, the effects of environmental pollution, and the effectiveness of the brain's reflexive nervous system as determinants for explaining Autism Spectrum Disorder (Thompson & Smith, 2012).

Studies examining the practical effects of international initiatives in the Arab environment have significantly increased in number in terms of scientific study in the Arab globe. For instance, the study by Dhib (2008) evaluated the effects of organized education in the classroom setting, while

other research trends, like the study by Al-Zara (2008), have centered on quality control in educational programs performed in centers and institutes. The BEB-3 scale, which has been translated and trained under the auspices of the Mother of Prince Faisal bin Fahd Al Saud Center, is one measure that has been actively standardised by research studies to support the diagnosis of autistic behavior (Abdullah et al., 2011).

Following a review of scientific contributions in the field of autism programs, the researcher identified a deficit in the translation and development of performance programs that include scientifically-based activities. This has resulted in increasing problems in establishing curricula and personalized programs adapted to autistic cases, taking into account the unique characteristics of the autism spectrum. The recommendations of the Arab world's first conference of autism centers, held in 2008, underlined the significance of supporting training programs and reorganizing special education programs, particularly those aimed at families. This was reinforced by the suggestions of the Gulf Disability Society's Tenth Forum (Khalil & Ahmed, 2008; Mohammed & Ali, 2010).

The area of autism research has acknowledged the need for more thorough study to assess the efficacy of early therapies for autistic children. Small sample numbers, a lack of control groups, and brief intervention periods have all been problems for many research in this field (Jones et al., 2017; Smith et al., 2019). The validity and generalizability of the results may be impacted by these restrictions. Researchers have urged the use of large-scale randomized controlled trials (RCTs) in autism intervention research to overcome these problems (Warren et al., 2011; Johnson et al., 2016). In RCTs, participants are randomly assigned to various groups, including a control



group, to compare the outcomes of the intervention under investigation. RCTs can offer greater proof of the efficacy of early therapies for children with autism by using bigger sample sizes and including control groups (Dawson et al., 2010; Magiati et al., 2017).

Rett syndrome has also been the subject of studies examining therapies for those with the illness, in addition to autism. Rett syndrome is a rare neurodevelopmental disorder that primarily affects females and is characterized by a loss of purposeful hand skills, slowed growth, problems with coordination and movement, and cognitive impairments (Neul et al., 2019). It is caused by mutations in the MECP2 gene, which plays a crucial role in brain development and function (Amir et al., 1999). Similar to autism, research on Rett syndrome have encountered difficulties due to the disorder's complexity and limited sample

sizes (Neul et al., 2010; Percy et al., 2017).The fundamental mechanisms of neurodevelopmental disorders have been better understood because to research on Rett syndrome. According to research, aberrant neural connections, altered synaptic plasticity, and impaired neurotransmitter signaling all contribute to the cognitive and behavioral abnormalities seen in Rett syndrome (Chahrour & Zoghbi, 2007; Jugloff et al., 2005).

There are two main types of Rett syndrome: classic and atypical.<sup>1</sup> The two types may differ by their symptoms or by the specific gene mutation.The majority of Rett syndrome patients have the classic form, which typically develops in 3 Stages, Early onset, Rapid destructive, Plateau. The table below shows the difference between them.

Table 2: The Stages of Rett Syndrome

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<p><b>Stage 1: Early onset.</b></p>	<p>This stage typically occurs between the ages of 6 months and 1.5 years, lasting from several months to a year. During this period, symptoms are often subtle and may be missed. Infants might show reduced eye contact and diminished interest in toys. Developmental milestones such as sitting or crawling may be delayed</p>
<p><b>Stage 2: Rapid destructive.</b></p>	<p>Also referred to as the "rapid deterioration" phase, this stage generally begins when a child is between 1 and 4 years old and can span weeks to months. In this phase, children may regress, losing previously acquired skills either rapidly or gradually. More pronounced symptoms of Rett syndrome appear, including slower head growth, distinct hand movements, rapid breathing, mobility and coordination difficulties, and a decline in social and communication abilities</p>
<p><b>Stage 3: Plateau.</b></p>	<p>This stage can commence anywhere from the preschool years to adulthood and often persists for many years</p>



The term "neurodevelopmental disorders" refers to a broad category of problems that influence the growth and operation of the nervous system. The attention-deficit/hyperactivity disorder (ADHD), intellectual impairment (ID), and autism spectrum disorder (ASD) are a few other important neurodevelopmental disorders. Impaired social interaction, communication, and cognitive functioning are the hallmarks of these illnesses. The intricate interplay of genetic and environmental variables in the etiology of neurodevelopmental disorders has been highlighted by research. Numerous risk factors linked to these illnesses have been discovered through genetic studies, shedding light on the molecular processes involved in brain development (Geschwind & State, 2015). Neurodevelopmental problems have also been linked to environmental factors as prenatal exposures, maternal illnesses, and early life experiences (Gardener & Spiegelman, 2009; Ronald & Hoekstra, 2011). Neuroimaging advances, such as functional magnetic resonance imaging (fMRI) and diffusion tensor imaging (DTI), have provided important insights into the structural and functional brain abnormalities associated with neurodevelopmental disorders. These imaging investigations have demonstrated abnormal brain connections, abnormal neural activation patterns, and atypical brain areas associated with social cognition and executive processes (Di Martino et al., 2014; Just et al., 2012). A multidisciplinary approach to treating neurodevelopmental problems frequently combines behavioral interventions, medication, and supportive therapies. To achieve the best results, early intervention and treatment strategies that are unique to each patient's needs must be implemented (Dawson et al., 2010; Veenstra-VanderWeele & Cook Jr, 2004).

To summarize, Rett syndrome and associated neurodevelopmental disorders

present major problems to afflicted individuals and families. The fundamental causes of these illnesses are still being uncovered by ongoing research, opening the door to better diagnostic procedures and tailored therapies. In order to further our understanding and create successful therapies, it is crucial to have a thorough grasp of the genetic, environmental, and neurological components that contribute to neurodevelopmental disorders.

In his research, Dhib examined how students with special needs were affected by organized education in the classroom. Such research is crucial because it highlights the necessity of giving special needs students a dynamic and structured learning environment. Dhib (2008) . As opposed to other children with special needs, children with autism spectrum disorder require different reactions and levels of care, hence it should be mentioned that adopting the study's findings in this context may present additional difficulties. Al-Zar' (2008) conducted a study on quality assurance in educational programs at centers and institutes. This research could help to improve the quality of programs and services available to people with autism spectrum disorder. However, it should be noted that putting these ideas into action may be difficult due to a variety of local and institutional variables connected with program implementation.

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First Conference on Autism Centers in the Arab World Recommendations (2008): These suggestions emphasize the significance of encouraging study and advancement in the subject of autism in the Arab world. Analyzing these suggestions, nevertheless, requires caution because Arab nations can have unique difficulties such a lack of financing and support for putting plans into action and carrying out research in this area. Gulf Society for Disability's Tenth Symposium



(2010): This occasion emphasizes the part played by governmental and non-governmental organizations in creating plans and services to assist people with special needs. However, it should be understood that all stakeholders, including the academic community, governmental entities, and non-governmental groups, must work together and coordinate for these proposals to be implemented effectively.

E-counseling and Autism Spectrum Disorder (ASD):

"The Impact of Technology in Special Needs Counseling" - This study looks at the impact of technology in providing e-counseling to people with special needs, stressing the benefits and problems of this sort of counseling. (Smith, J., and R. Johnson, 2017). It is crucial to emphasize that this study focuses on the overall benefits and limitations of employing technology in e-counseling for people with special needs, rather than its applications in cases of Autism Spectrum Disorder. Further research on the influence of e-counseling on a diverse variety of individuals on the autistic spectrum is recommended. This study is an expansion of existing and growing research trends that concentrate on the creation of useful programs aiding families in successfully raising autistic children. It is founded on the combination of empirically validated scientific theories, autism spectrum disorder-specific traits, and real-world experiences. The researcher implemented developmental programs for individuals with Autism Spectrum Disorder in collaboration with the family, making them a specific partner in setting priorities after providing all necessary information that allows the family to make decisions based on scientific guidelines. This involves prioritizing and selecting the degree and sequential growth of performance abilities, as well as applying a mechanism that

allows both the trainer and the family to benefit from the 21st century technology revolution in the field of communications. The uniqueness of this study stems from the challenge of reality based on the data itself, by developing practical solutions that contribute to the direct reflection of scientific research practices in supporting certain issues that pose challenges to society, while leveraging the technological revolution in the field of communications. It also makes a positive contribution to scientific studies. The researcher believes that the qualitative jump in the development of various services provided to individuals with Autism Spectrum Disorder, as well as how and when it can be accomplished, is dependent on the true willingness of all parties involved, including the family, the trainer, and the community.

### 3. Methodology

The rapid technological revolution in the world of communications serves as a catalyst for scientific research in various fields. The term "e-guidance" reflects one of these innovative trends in the field of educational and psychological research, highlighting the integration between theoretical and modern applied approaches.

#### 3.1.1 Study Approach:

An experimental application that is easy to use in the experimental method in various sciences, and is close to the human sciences in terms of excellence and subject matter to those of the natural sciences and is used for the experimental method in its various ideas, (Muhammad, 2007: 80). The current study applies one of the experimental experimental levels, which is known as the quasi-experimental approach, which is often used in the field of humanitarian science, and adopts two types of designs to test the study hypotheses:

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- New measurements for the experimental and control groups (children group).
- Pre-measurement - Ababi for the experimental and control groups (mothers group).

The study compared the efforts of the mothers “before and after” the training program affected by the effort in developing the efforts of the mothers to develop the formulation of items to build the educational elements for their children, while the researcher was content with measuring tools for students with autism after implementing the program, in order to neutralize the success of the training on the applied test, and work that

does not go beyond that. The time interval between the two applications.

### 3.1.2 Study population:

All mothers who are creative students of their children in the Early Autism Department at the Center for Desired Hope, especially the special needs of the Umm Al-Qura Beneficiary Association in Makkah Al-Mukarramah, who are registered to diagnose children with autism spectrum disorder before psychiatric patients, and recorded an indication on the list of clinical symptoms of the researcher for autism spectrum disorder ,Children from all levels of the autism spectrum were selected.

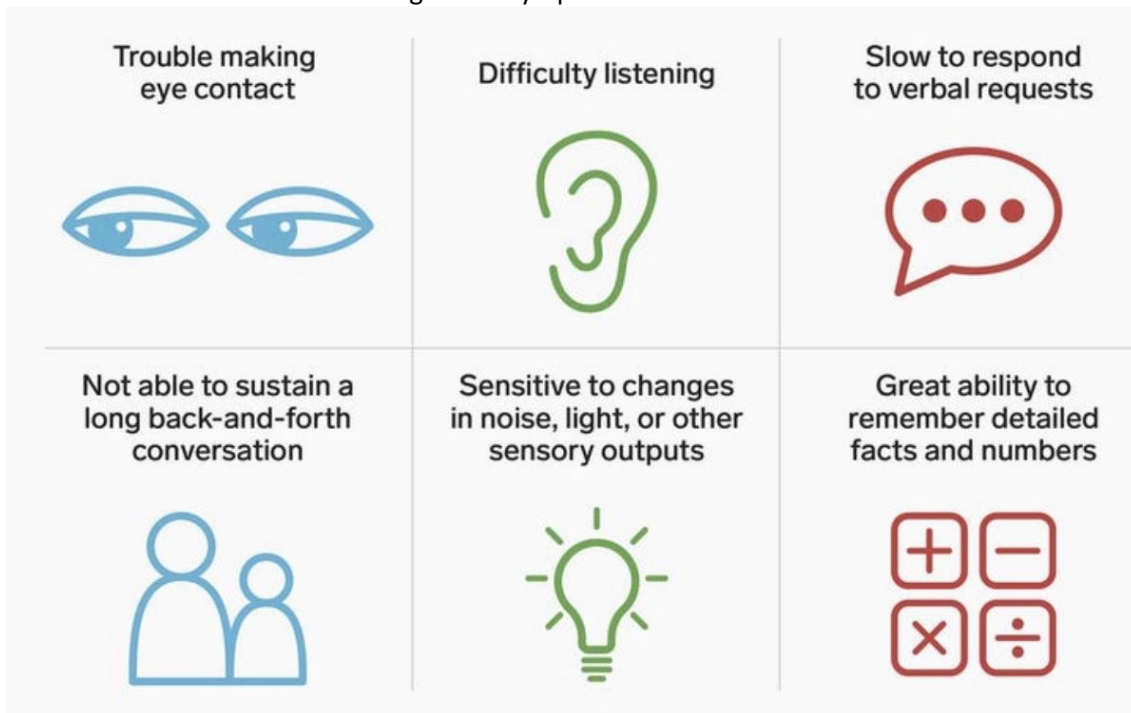
Table 3 : Levels of Autism.

<p>Level 1 Requiring support</p>	<ul style="list-style-type: none"> <li>• Trouble understanding and following social rules</li> <li>• Rigid or inflexible behavior</li> <li>• Some stress during transitions</li> <li>• May benefit from therapy or life skills coaching</li> </ul>
<p>Level 2 Requiring substantial support</p>	<ul style="list-style-type: none"> <li>• Atypical social behavior, like walking away mid-conversation</li> <li>• High interest in specific topics</li> <li>• Noticeable distress when faced with change</li> <li>• May need school accommodations like reading help or social skills support</li> </ul>
<p>Level 3 Requiring very substantial support</p>	<ul style="list-style-type: none"> <li>• Severe communication deficits, such as being nonspeaking</li> <li>• Repetitive behaviors like rocking or spinning Extreme distress when asked to switch tasks</li> <li>• May need one-on-one time with an education assistant and may use augmentative and alternative communication (AAC) tools .</li> </ul>

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Figure 2 : Symptoms of autism



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3.1.3 Create the study:

The study shows ten marital cases (child + mother) consisted of (8) children aged between (3-6) years who were diagnosed with autism spectrum of moderate severity according to the list of clinical symptoms of autism disorders, and they were selected after exercising initial freedom, in which internal stability is established, such as age, degree of performance in general behavior and adaptive behavior. For children, and general employment in computer tasks for newborns. Then, the background elements of the research were distributed directly between the experimental group and the control group.

3.1.4 Study tools:

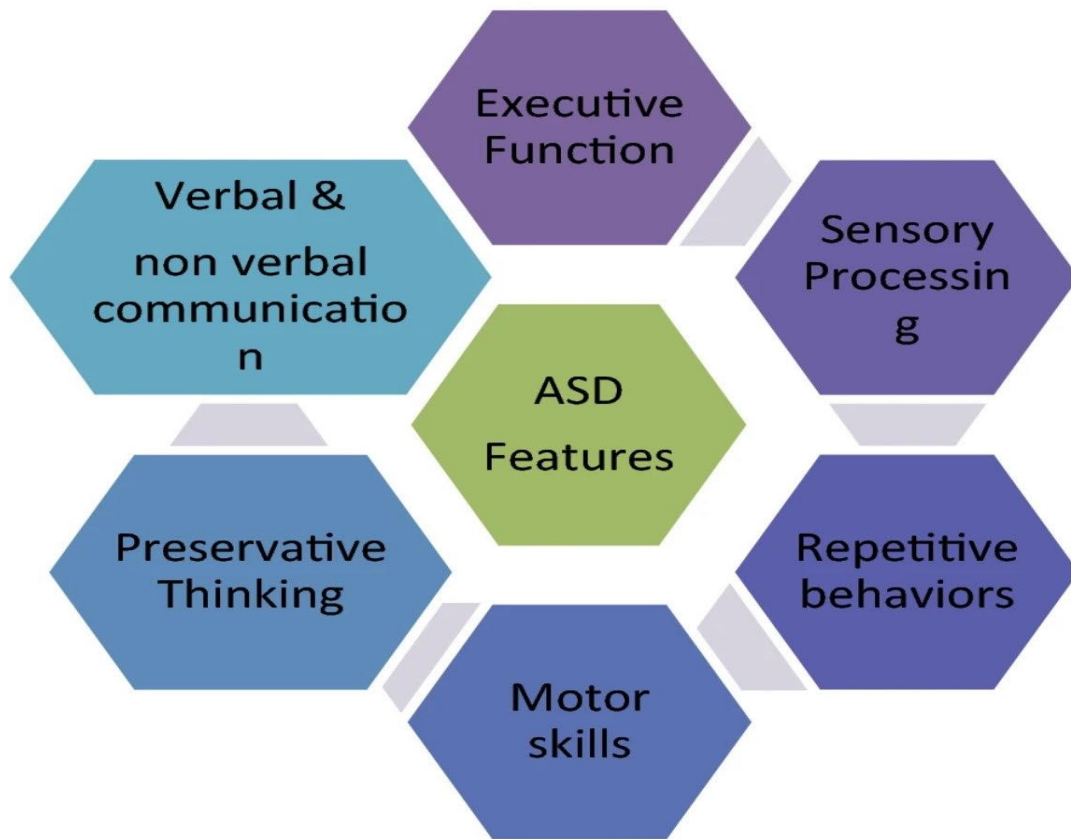
The following tools, tools and instruments were used:

- List of clinical criteria for detecting autism disorder.
  - Shepler's scale for assessing the behavior of autistic children.
  - Adaptive behavior scale.
  - Goddard's IQ scale.
  - A list for assessing the efficiency of the individual plan (prepared by the researcher).
  - Early intervention stage skills curriculum (prepared by the researcher).
  - Electronic counseling program (prepared by the researcher).
1. Ghumadi's (2003) Clinical Criteria List for Detecting Autism Spectrum Disorder: This tool was used to identify and diagnose autism spectrum disorder in the children.

1. Al-Shammari, M. M., & Al-Sartawi, A. M. (2002). The Schopler Scale for Assessing Autistic Child Behavior. \[Reference not provided in the document.\]



Figure 3: Aspects observed while diagnosing ASD



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#### 4. Data Analysis

According to the study findings, there were no statistically significant variations in the mean scores of mothers of autistic children in the experimental and control groups prior to deploying the electronic counseling tool for customized educational planning. This suggests that the program had no effect on mothers' attitudes prior to its commencement. However, after implementing the electronic counseling program, statistically significant variations in the mean scores of mothers of autistic children in the experimental group compared to the control group were discovered. This shows that the program

helped to improve moms' attitudes in general. After adopting the electronic counseling tool for customized educational planning for teachers, there were no statistically significant differences in performance ratings between moms of autistic children and teachers of autistic children in the control group. This means that the program had no effect on teacher performance after it was implemented. This suggests that the program had no discernible effect on the performance of moms and teachers in the experimental group. However, statistically significant differences in the mean scores of mothers of autistic children in the experimental, [www.neuroquantology.com](http://www.neuroquantology.com)



control, and external groups were discovered after implementing the electronic counseling program for individual educational planning for the benefit of mothers in the experimental and external groups. This suggests that the training had a considerable impact on the perceptions of moms in the experimental group. After adopting the electronic counseling tool for individual educational planning, there were no statistically significant variations in the mean scores of children with autism in the experimental and control groups. This suggests that the program had no effect on the performance of autistic children in the experimental group.

## 5. Findings

Title of the Dissertation: "The Effectiveness of an Electronic Counseling Program in Individual Educational Planning" provides an overview of the study's aims, methods, and findings. It focuses on the effectiveness of an electronic counseling program in assisting families of autistic children in developing individual educational programs, as well as the effects on the child's adaptive behavior and cognitive performance. Ghumadi's Clinical Criteria List for Detecting Autism Spectrum Disorder, Al-Shammari and Al-Sartawi's Schopler Scale for Assessing Autistic Child Behavior, Al-Otaibi's Adaptation Behavior Scale, Goddard's Intelligence Scale, the Researcher's Individual Educational Plan Efficiency Assessment List, the Early Intervention Skills Curriculum, and the Electronic Counseling Program prepared by the researcher were among the assessment tools used in the study. The study used a quasi-experimental design and non-parametric statistical methods such as the Mann-Whitney, Wilcoxon, and Kruskal-Wallis tests for statistical analysis. In all three groups, the results demonstrated the efficiency of the electronic counseling

software in the development of individual educational programs by moms of autistic children. There was a substantial difference between the control and experimental groups, showing that the program had a good influence. The experimental group's autistic youngsters also improved in terms of adaptive behavior. The study's suggestions underlined the significance of increasing and expanding counseling programs for families with autistic children, as well as leveraging developments in communication technology and electronic programs in this respect. Furthermore, the study's problem is characterized as the development of an electronic guidance program for individuals with Autism Spectrum Disorder during the early intervention stage, as well as an examination of its usefulness in developing the child's performance and family engagement. It also tries to solve practical challenges experienced by both the family and the study's specialists. The primary research issue of the study is about the usefulness of the electronic guidance program in assisting families with autistic children in developing specific educational plans. It is followed by several sub-questions related to differences in means between groups, performance of mothers and teachers, and the impact on autistic children. The study has practical implications for social marketing for autism training programs directed at families of autistic children, as well as increasing family involvement and planning and implementing specific educational plans. It emphasizes the significance of electronic programs and technological breakthroughs in the realm of communications.

## 6. Conclusion

A program was created to improve the use of technology in special needs counseling. The program's goal is to provide technical tools and strategies to help improve the counseling process and

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support for people with special needs. The program was piloted with families of autistic children. The findings were examined to determine the program's success in increasing the quality of life for families and providing them with the required support. The study discovered that using technology in special needs counseling can benefit families and children with ASD. The strategies used may help to improve communication and provide appropriate psychological and educational assistance for them. The use of technology in counseling enables greater flexibility in providing services to those with unique needs. Support and counseling can be delivered remotely, allowing for greater access to services and support in locations that may be remote or otherwise unavailable. Scientific study in the Arab world highlights the necessity of developing novel counseling programs for people with special needs, especially those with autism spectrum disorder. This necessitates offering proper counseling professional training as well as implementing educational policies and programs that address the requirements of these individuals and their families.

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