



## **Educational Programs Supporting Children With Autism Spectrum Disorder And Their Relationship To Reducing Stereotypical Repetitive Behaviors From The Point Of View Of Their Teachers In The City Of Hail.**

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### **Abstract**

The Autism Spectrum is one of the complex developmental disabilities that affect children in their early childhood. It is a disability that has a comprehensive impact on all aspects of the child's mental, social, emotional, motor, and sensory development. The most obvious deficiency in this disability is the speech aspect and mutual social interaction, as the autistic child is not He is unable to interact socially and form relationships with peers, in addition to his lack of attention and stereotypical behavior, and his interests are restricted or limited. The study aimed to reveal the evaluation of teachers of children with autism spectrum disorder regarding some supportive educational programs in their relationship to reducing stereotypical repetitive behaviors in the city of Hail.

The study consisted of a random sample that included teachers of children with autism spectrum disorder in autism programs in the city of Hail. Their original number reached 180 teachers with various qualifications (bachelor's or postgraduate studies) and with various years of experience, and from government and private sector institutions in the Department of Education in the Makkah Al-Mukarramah region. Their data was identified through a teacher data form designed for this purpose. The study used the descriptive exploratory approach by applying the questionnaire as a tool in collecting data. The study also relied on the differential approach by identifying the extent to which there are differences in the averages of teachers' evaluations of supportive educational programs in their relationship to stereotypical repetitive behaviors. The study consisted of 25 statements distributed over 5 axes related to Educational programs supporting people with autism spectrum disorder and their relationship to reducing stereotypical repetitive behaviors from the point of view of their teachers in the city of Hail.

The results of the study showed that the study consists of five axes: (health services, sensory integration therapy services, occupational therapy services, speech-language services, psychological and counseling services), and each axis consists of 5 statements, as it was found that the first axis is the role of health services and includes Five statements received an average of 2.04, meaning somewhat agreeable to the supportive services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail

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| <p>CC License<br/>CC-BY-NC-SA 4.0</p> | <p>region from the point of view of their teachers. While the average of the second axis, which is related to psychological integration treatment services, was about 2.07, meaning somewhat agreeable. While the average of the third axis, which is related to occupational therapy services, was about 2.04, meaning somewhat agreeable. The average of the fourth axis, which is related to Speech services, was about 2.83, meaning agree. The average of the fifth axis, which is related to psychological and counseling services, was about 2.87, meaning agree. It was also shown that the total number of topics related to supportive services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers obtained an average of about 2.37, i.e. approval of the supportive services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers.</p> <p>The study recommended the necessity of conducting several studies on support service programs for children with autism spectrum disorder, especially in the early intervention stage - generalizing by the Ministry of Health about autism spectrum disorder and ensuring the necessity of health education to detect cases of autism spectrum disorder, and increasing the conduct of autism disorder screening and early screening. The importance of teachers' vision of supportive educational programs to reduce stereotypical repetitive behaviors of students with autism spectrum disorder, and the extent of their role and effectiveness in dealing positively and effectively with many of the behavioral problems that characterize autistic students and not just the problem to be studied.</p> <p><b>Keywords:</b> <i>Repetitive Stereotypical Behavior - Children with Autism Spectrum Disorder - Educational Programs.</i></p> |
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## Introduction:

The Autism Spectrum is one of the complex developmental disabilities that affect children in their early childhood. It is a disability that has a comprehensive impact on all aspects of the child's mental, social, emotional, motor, and sensory development. The most obvious deficiency in this disability is the speech aspect and mutual social interaction, as the autistic child is not He is able to interact socially and form relationships with peers, in addition to his lack of attention and stereotypical behavior, and his interests are restricted or specific (Al Ghurair, 2016, 62). Autism spectrum disorder is considered one of the most mysterious neurodevelopmental disorders because no real causes have been found despite its early discovery on the one hand and the severity of its symptoms and forms on the other hand. It affects children from the first few months, and interest in the category of autism spectrum disorder began as one of the special categories after what was presented by the French doctor. (Leo kanner, 1943) for eleven children in early childhood who, at birth, feel happy and reassured when they are alone and do not make the movements of expectation that a 4-month-old child does, such as recognizing the mother and interacting with babbling. They do not prefer visiting relatives and ignore those around them, and their focus is directed towards certain patterns (Steiner, 2018, 38).

Autism spectrum disorder requires continuous supervision and follow-up, and requires various programs, whether therapeutic, counseling, or training. This disorder afflicts some children and makes them unable to form normal social relationships and unable to develop speech skills, so that the autistic child becomes isolated from his social environment, in a closed world characterized by repetitive movements, hyperactivity, and aggression (Al-Batayneh, 2011, 301). Repetitive behaviors are considered one of the most important basic criteria for diagnosing autism spectrum disorder, and are considered one of the early warning signs of this disorder. Therefore, stereotypical behavior is considered an obstacle to growth and abilities and hinders the interaction responsible for exchanging and practicing experiences for the sake of sound psychological and social development. (Goldman, 2015, 82)

Repetitive stereotypical behaviors are among the most indicative signs of autism spectrum disorder, as stereotypical behaviors vary widely among autistic children, and may begin differently, and may differ in terms of the duration they last and their nature, and some may be more repetitive than others, and some are considered basic rituals. Some children with autism spectrum disorder have ways to live, and some of them may cause harm to the child, but most of them do not cause any harm to the child but cause harm to others, and some of them do not cause any harm (Al-Khouli, 2015, 151). Repetitive stereotypical behaviors are also among the distinctive manifestations that many children with autism spectrum disorder display, and they are one of the prominent deficiencies that can be easily noticed by those who deal with these children. The (repetitive stereotypic behaviors) are an essential element in diagnosing autism disorder, and that the behaviors that these children exhibit are often characterized as being restricted and of a narrow range, and are usually represented by some repetitive movements of the body or abnormal movements, whether with the fingers, hands, or otherwise. They hinder the autistic child from interacting with the environment surrounding him and also hinder him in interacting with the people around him, which may lead to arousal of those around them, and it also hinders the child from learning from the surrounding environment and the people around them (Solaiman, 2010).

### ***Study Problem:***

Many literatures, scientific experiments, and research studies have confirmed the importance of direct applied educational programs provided to autistic children in educational institutions, which help improve their condition in the future, and help those around them in how to deal with them. The majority of them have achieved positive results during their application. These are the reported results. Many studies, such as the study of (Sturm and Kasari, 2019; Marilyn, 2000; Al-Ghurair, 2014; Al-Sheikh, 2004) which focused on the importance of early intervention, education, and training in achieving positive outcomes for autistic children in the future, and also pointed to the importance of evaluating programs and services. Children with autism spectrum disorder, such as evaluating the programs provided from the point of view of teachers, the effectiveness of educational plans, the content of these plans, diagnostic methods, the availability of appropriate assessment tools, and the teaching methods used in educating children with autism, in addition to researchers studying and identifying the problems facing teachers, and some of them addressed the conditions of centers that It provides services to children with autism spectrum disorder. The problem of the study becomes clear through the importance of identifying the conditions of autistic children who benefit from the services of educational and training institutions through evaluating the institutions' programs supervised by specialists and teachers trained in the procedures for dealing with autistic children, especially the computer programs and visual and audio aids provided within the educational institutions that It deals with autism spectrum disorder, in addition to the researcher's feeling that there is a level of evaluation for these programs in institutions and to ensure their effectiveness and feasibility and the extent of their impact on the lives of autistic children, especially in how these educational (support) programs deal with one of the behavioral problems that are specific to cases of people with autism. Autism spectrum disorder, such as stereotypical, repetitive behaviors, and their treatment here will be determined through description, review, and evaluation by those responsible for caring for these children in various educational institutions, and not through intervention and experimentation for effectiveness and impact.

### ***Study questions:***

1. What is the reality of the supportive educational programs provided to children with autism spectrum disorder in educational institutions regarding stereotypical repetitive behaviors in the city of Hail from the point of view of their teachers?
2. Are there statistically significant differences in the averages of teachers' evaluations of the supportive educational programs provided to children with autism spectrum disorder in educational institutions in the city of Hail with regard to stereotypical repetitive behaviors due to the type of institution (governmental, private).
3. Are there statistically significant differences in the averages of teachers' evaluations of the supportive educational programs provided for children with autism spectrum disorder in educational institutions in the city of Hail with regard to stereotypical, repetitive behaviors due to years of experience?
4. Are there statistically significant differences in the averages of teachers' evaluations of the supportive educational programs provided for children with autism spectrum disorder in educational institutions in the city of Hail with regard to stereotypical repetitive behaviors due to academic qualification (Bachelor's, Master's or Doctorate)?

5. Are there statistically significant differences in the averages of teachers' evaluation of the supportive educational programs provided for children with autism spectrum disorder in educational institutions in the city of Hail with regard to stereotyped, repetitive behaviors attributable to the rank of the teacher (practitioner, advanced, expert)?

***Study Purpose:***

The current study aims to reveal the evaluation of teachers of children with autism spectrum disorder regarding some supportive educational programs in their relationship to reducing stereotypical repetitive behaviors in the city of Hail.

***The importance of the study:***

Theoretical importance:

1. Keeping pace with modern trends of the Kingdom of Saudi Arabia's 2030 vision for a renaissance in serving people with autism spectrum disorder.
2. Learning about the reality of educational support programs provided to students with autism spectrum disorder in various educational institutions
3. Administrative support for evaluating educational programs supporting people with autism spectrum disorder, and the vision of decision-makers in this regard.

***Practical importance:***

1. Evaluating the reality of educational programs supporting students with autism spectrum disorder in educational institutions.
2. Enabling students with autism spectrum disorder to achieve the goals of the learning process in an optimal way that suits their abilities and inclinations
3. The existence of appropriate education for all within the educational institution, taking into account individuality and personal differences
4. Involving teachers and faculty in their visions, proposals, and practical visions for the supportive educational programs provided to people with autism spectrum disorder.

***The limitations of the study:***

1. ***Spatial limitations:*** The study was limited to schools that have autism programs affiliated with the General Administration of Education in the city of Hail
2. ***Time limitations:*** Study data were collected during the second and third semester of 2023
3. ***Human limitations:*** The study was limited to teachers of children with autism spectrum disorder affiliated with the General Administration of Education in the Hail region.

***Terminology of study:***

***Supportive educational programmers:***

(Fayed, 2019) defines it as a group of programs that are provided in order to facilitate the learning process for children with special needs. Among the most famous educational programs for children with autism (Teach, 1960), the Autistic Children Project program (Lovaas, 1958), the image analysis speech program, and the Sunrise program, while (Al-Shehri, 2021) defines it as the comprehensive, coordinated process of employing extracurricular activities and psychological, educational, and vocational services to assist the student with autistic disabilities in achieving the maximum possible degree of self- and academic effectiveness, with the aim of developing him in various aspects of growth to enable him to conform to the requirements of his natural, psychological, and educational environment in order to rely on himself and make him an effective member of the society. In the current study, the supportive educational programs, as they are applied within educational institutions in the Education Department in the Makkah Al-Mukarramah region, will be limited to: computer programs and some visual and hearing aid programs and their suitability for dealing with stereotypical repetitive behaviors from the point of view of teachers and faculty dealing with autistic students within these educational institutions.

***Repetitive stereotypical behaviors:***

(Al-Dosari, 2009) defined it as abnormal behavioral manifestations that appear in the form of dissimilar responses in form because they are similar in that they are non-functional, which is a common behavior in autistic children, while (Salem, Mansour, 2013) define it as practicing stereotyped movements repeatedly without purpose, such as Flapping the fingers, bending the torso forward and backward, moving the arms or

hands, or jumping with the feet on the other hand, it may also be a long-term preoccupation with parts, tools or objects while continuing to play with them for a long time, such as a key chain or parts of a flower or plant or a watch bracelet. In the current study, it is determined by the actual score on the questionnaire prepared for teachers dealing with students with autism spectrum disorder in their evaluative vision of this disorder through supportive educational programs.

#### ***Autism spectrum disorder:***

It is a developmental disorder that has multiple effects on children at an early age, and is evident in the emotional, social, and mental development aspects. When you meet a child suffering from autism face to face, you will have a clear feeling that you are facing a person lost in this world, immersed in his own world, unable to communicate emotionally (Reid, 2012, 13), while the (Fifth Diagnostic and Statistical Manual of Mental Disorders, 2014) defined it as a disorder characterized by a deficit in two basic dimensions: a deficit in speech and social interaction, and limited behavioral patterns and activities. It includes 3 levels, provided that they appear Symptoms occur in an early developmental period and cause severe stress in social and occupational functioning (American Psychiatric Association, 2014, 809).

#### ***Educational programs:***

There are many special educational programs that suit the needs of each group, and because the autism spectrum has become one of the disabilities that has preoccupied researchers and scholars, many programs have been developed that concern them, especially in developing speech, social, and behavioral skills (Zuraikat, 2004, 431). By reviewing the educational programs provided for children on the autism spectrum, we find that they are numerous and differ from each other based on the theories explaining autism spectrum disorder, and the different visions of those caring for these children vary regarding the feasibility and effectiveness of these programs in improving undesirable behaviors (Jessica, 2010).

#### ***Visual and audio aids:***

Visual and audio aids provided to students with autism spectrum disorder are important for direct application in various educational institutions, as they are a system that includes a set of media (sound - written texts - sound effects - line drawings - animation - digital video clips) in which Integration and interaction between them through a computer program (Mansour, 2020, 212). The importance of these aids is to provide excitement and excitement for students in this category, develop life skills to help them confront the problems they encounter, and develop social skills such as cooperation, participation, taking responsibility, and reducing their undesirable behaviors (Al-Rubaie, 2012).

#### ***Literature Review:***

Over the past years ago, many studies utilized the Behavioral problems of students with autism spectrum disorder from the point of view of teachers; this section is overviews the recent empirical analyses on the Behavioral problems of students with autism spectrum disorder in general or from the point of view of teachers. The study of (Conroy, et al., 2005) studied the incidence of children identified as having autism spectrum disorders (ASD) is increasing. The study obtained that the many of these children are enrolled in general education settings, posing an ever-growing challenge for the teachers in those settings. The study said there was a critical need to develop interventions for students with ASD that can be used in general education classrooms. This study addressed this issue by implementing and evaluating the effectiveness of an antecedent-based intervention on the stereotypic behavior of a student with ASD who was fully included in a kindergarten classroom. The functional analysis of this study indicating that the stereotypic behavior was maintained by automatic reinforcement, an antecedent intervention was designed that included the use of visual cues to indicate activity times when it was acceptable and when it was not acceptable for the student to engage in stereotypic behavior. The Effectiveness of the intervention was examined using an alternating treatment design (Barlow & Hayes, 1979). The study showed that the implementation of the intervention, the student's stereotypic behavior decreased during the times indicated by the visual cue that it was unacceptable to engage in stereotypy, a replication was conducted transferring the implementation of the intervention to the teacher's assistant in the classroom.

(Ruble, 2010) aimed to reveal the quality of individual educational programs based on the standards of the IDEA law, which is the law (the right to education for all) in general education schools in addition to the Center for Research on Children on the Autism Spectrum ICR. The Validity and reliability tests were tested on a survey sample consisting of 35 students from 35 classes in order to study the relationship between the quality of the individual educational program and the characteristics of the school, the teacher, and the child.

The results proved that a good individual educational program is the only program that works to develop the skills of autistic children in all fields by relying on the IDEA and ICR standards. The results also showed no statistically significant differences between the variables of the school, the teacher, and the child with the quality of the program.

(Hamidi, 2013) aimed to identify the degree of application of the individual educational plan in autism programs from the point of view of autism teachers and its relationship to some variables: gender, experience, and educational qualification. The sample was composed of 85 teachers from government and private centers. The results of the study showed that the educational plan of individual information provided to autistic students was merely formal and routine information that was far from practical because the teachers did not understand the importance and components of this plan. Most of their concerns were focused on training the children practically through activities.

(Mulligan, et al. 2014) studied the Stereotyped, repetitive, ritualistic, obsessive, and compulsive behaviors are a common feature for many individuals with autism, and multiple topographies of such behavior exist. Previous reviews have discussed treatments for stereotypy and repetitive behaviors; however, to date, none have systematically evaluated the efficacy of such treatments. An abundance of treatments based on the principles of applied behavior analysis exist within the literature; however, many assume that stereotypy is maintained by automatic reinforcement. The current review aimed to evaluate the efficacy of treatments for stereotypy across disciplines including behavioral, pharmacological, and sensory-based therapies. Furthermore, this review compares the efficacy of function-based and nonfunctional-based treatments for stereotypy.

(Sevin, et al., 2015) studied the repetitive, restricted behaviors and interests were a major feature of Autism Spectrum Disorder (ASD). The study said the insistence on sameness, rigid adherence to rituals, routines and resistance to change, and related symptoms can have a highly disruptive impact on an individual's ability to transition from one task to the next and progress through the different steps within a task. The study showed that the difficulties with transitions can represent a major barrier in treatment and care, impede learning, and contribute to significant distress in individuals with an ASD. The study obtained that a number of behavioral approaches to facilitating transitions in persons with an ASD have been investigated. This study reviewed the available research on strategies to support individuals in transitions between daily activities and tasks, the study concluded that the current trends and future directions are discussed.

(Al-Ghurair, 2016) aimed to identify the conditions of autistic children who benefit from the services of education and training institutions in Jordan by evaluating the programs of these institutions, which are supervised by specialists and teachers trained in procedures for dealing with autistic children. These programs were: education - diagnosis - counseling, the study sample consisted of 6 institutions that were chosen randomly. The results of the study demonstrated that there are no statistically significant differences between autism institutions in the programs provided to autistic children. The results also indicated that all autism-specific programs offered in the centers are effective, high-quality programs and are compatible with standards of the Supreme Council for the Affairs of Persons with Disabilities. It was also shown that there are statistically significant differences in educational services in favor of private sector institutions. The researcher attributed this to the focus in these private centers on the education dimension and the intensive application of programs related to education, in addition to the interest in educational activities, means, and events in these private centers.

(Al-Qawasmeh, 2016) entitled Evaluation of programs and services provided to children with autism spectrum disorder in special education centers in light of international standards in the Kingdom of Saudi Arabia. She applied her study to a sample of 10 special education centers that provide educational programs and services for children. Her research tools included 4 main dimensions: services, programs, evaluation, integration, and transitional services, in addition to the educational environment, while the services and programs dimension included the following indicators: the individual educational program, the reference curriculum, teaching methods, and behavior modification. The results of the study showed that the educational environment received the highest rating in dealing with children with autism spectrum disorder, while Integration and transitional services received the lowest level, and the individual educational program received the highest rating in the services and programs dimension with its four indicators, while teaching methods were in the last level.

(Khader, 2017) aimed to evaluate the educational programs and services provided to autistic children in special education centers in Khartoum State according to the point of view of their teachers. To achieve the goal of the study, the study prepared a questionnaire to survey the opinions of teachers of autistic children in special education centers in Khartoum State. The questionnaire included 8 axes containing 96 Paragraph were the topics: diagnosis and evaluation of autistic children - educational programs - teachers and working

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personnel - educational environment - strategies and teaching methods - integration and supportive services - guidance, support and empowerment of families - educational evaluation. The study used the historical descriptive analytical method to suit the subject of the study, and the study population consisted of all Teachers who teach autistic children in special education centers in Khartoum State, numbering 64 male and female teachers. The results showed that there were problems in all the previous axes, with the exception of the educational environment axis, which did not show any problems. It also became clear that there were no statistically significant differences in the teachers' answers according to the variable Gender, while these differences were found according to the variable of years of experience.

(Al-Sammadi and Shukani, 2018) aimed to evaluate the programs that are applied to children on the autism spectrum in Jordan as part of quality control indicators. The study was applied to a sample of 25 private, governmental and voluntary education centers by designing a scale consisting of 9 dimensions for this goal. These are: the program philosophy - the center's employees - the physical environment - measurement and evaluation - educational programs and curricula - teaching methods - parent participation - ethical and professional practice in autism spectrum disorder programs - review and self-evaluation of the center's programs. The results of the study showed that the measurement and evaluation dimension obtained the highest level among the indicators indicating the evaluation of programs, followed by the teaching methods and strategies dimension, then the review and self-evaluation dimension, while the ethical and professional practice dimension was the last level in the evaluation of programs applied to autistic children in terms of level.

(Ferreira, et al., 2019) showed that the recent studies have shown the existence of a positive relationship between physical exercise, symptomatic improvement, and reduction of damage caused by comorbidities associated with autistic spectrum disorder (ASD) in children, adolescents, and adults. The study aimed of this systematic review with meta-analysis (SRM) was to estimate the effects of physical exercise (PE) on the stereotyped behaviors of children with a diagnosis of ASD in intervention studies. The study designed followed the PRISMA guidelines and the TREND statement to assess the quality of information in each study. The study obtained that nine non-randomized intervention trial studies with low, moderate, and vigorous physical exercise, with a duration varying from 8 to 48 weeks and a frequency of 3 times a week, were included in the SRM. The dependent variable of the study was episode of stereotypical behaviors was analyzed in all studies and assessed as the number of episodes demonstrated by the child in pre- versus post-exercise intervention conditions. The study obtained that an eight studies included a total 129 children (115 males and 14 females) with an average age of  $8.93 \pm 1.69$  years, children with ASD showed a reduction of 1.1 in the number of occurrences of stereotypical behaviors after intervention with physical exercise. The study concluded that evidence was found to support physical exercise as an effective tool in reducing the number of episodes of stereotypical behaviors in children diagnosed with ASD.

(Dellapiazza, et al., 2020) studied the Atypical sensory processing is common in autism spectrum disorders (ASD), but their role in adaptive difficulties and problem behaviors is poorly understood. The study aimed to determine the prevalence and type of atypical sensory processing in children with ASD and investigate its impact on their adaptive functioning and maladaptive behaviors. They studied a subsample of 197 children rigorously diagnosed with ASD from the ELENA cohort. The Children were divided into atypical and typical sensory processing groups and several independent variables were compared, including adaptive functioning and maladaptive behaviors. Overall, 86.8% of the children had at least one atypical sensory pattern and all sensory modalities were disturbed. The study showed that the atypical sensory processing explained a significant part of the variance of behavioral problems.

(Mohamed,2020) aimed to identify the degree of application of quality control indicators in the programs and services provided by evaluating the programs and services applied at the Benghazi Center for Comprehensive Rehabilitation of Autistic Children. The study sample included centers with all their departments, cadres, programs and activities, and to identify the level of application of quality standards in the programs, Using the study tool, which included 10 dimensions and 282 sub-indicators, and after verifying the validity and reliability of the tool, in addition to using structured interviews and participant observation, and the data were analyzed statistically, the results of the study showed that after applied behavior analysis, it ranked first in the evaluation of programs and services provided according to quality standards and indicators. It is followed by preparation and integration, then by the educational environment, followed by teaching and training methods, and in fifth place comes after the reference curriculum, then after support services.

(Dean, et al., 2020) used a randomized controlled trial to compare two distinct models of group social skills interventions with adolescents with autism spectrum disorder (ASD). The study showed that the participants had a confirmed diagnosis of ASD, an IQ greater than or equal to 70, and were educated in the general education setting. Data from 62 adolescent participants who were randomized to one of two treatment

conditions (SKILLS vs. ENGAGE) were analyzed. The study showed that the SKILLS participants had a diagnosis of ASD, or social difficulties. Where, the ENGAGE groups included adolescents with ASD and typically developing (TD) peer mentors. The study said that the SKILLS and ENGAGE participants both improved joint engagement and reduced solitary engagement, however, SKILLS participants reported higher social stress and lower quality interpersonal relationships at exit, and increased emotional symptoms and problem behaviors at follow-up compared to the ENGAGE group. The findings of this study were suggested that within inclusive secondary school settings, it may be beneficial to include TD peers in social intervention groups.

(Al-Shehri, 2021) identified the reality of the supportive services provided to students with autism spectrum disorder within public education institutions, through evaluating the supportive services provided to students with autism spectrum disorder in integration schools from the point of view of their teachers in the city of Jeddah. The study used the descriptive survey method and the questionnaire as a tool. To achieve the objectives of the study, which applied to sample consists of 149 male and female teachers who work within the integration schools in the city of Jeddah. They were chosen randomly. The study reached a set of results, the most important of which is that the reality of the support services provided to autistic students in the integration schools in Jeddah from the point of view of their teachers was generally to a moderate degree, the study also found that there were no statistically significant differences in the averages of teachers' evaluation of the support services provided to students with autism spectrum disorder within public education institutions due to the variables (gender - academic qualification - years of experience - type of school). The researcher recommends several things, the most important of which is conducting Numerous studies have been conducted on support service programs for children on the autism spectrum and the organization of the surrounding environment by support service programs for children on the autism spectrum to reduce stereotypical behaviors that appear in autism disorder, and intensify awareness campaigns about the importance of and how to deal with autism spectrum disorder in all means of social media.

(Meredith, and McCarty, 2021) studied the Stereotyped movements (stereotypies) were semi-voluntary repetitive movements that were a prominent clinical feature of autism spectrum disorder. The study described in first-person accounts by people with autism as relaxing and that they help focus the mind and cope in overwhelming sensory environments. Therefore, they generally recommend against techniques that aimed to suppress stereotypies in individuals with autism. Further, they hypothesize that understanding the neurobiology of stereotypies could guide development of treatments to produce the benefits of stereotypies without the need to generate repetitive motor movements. The study linked first-person reports and clinical findings with basic neuroanatomical and physiology to produce a testable model of stereotypies. The study hypothesized that the stereotypies improve sensory processing and attention by regulating brain rhythms, either directly from the rhythmic motor command, or via rhythmic sensory feedback generated by the movements.

(Paraskevi, 2021) showed the inclusion of children with special educational needs in mainstream schools is a global trend. The study said that the inclusion of children with special educational needs in these schools has been the subject of ongoing research and discussion in recent decades, where, the inclusion as a concept is concerned with the provision of education throughout the student world. The study showed that the most important condition is the transformation of schools into ready-made structures so that they can integrate all kinds of students. So, the purpose of this study is to explore the integration of children with autism in the general school class. The study showed that more specifically, the views of general and special education teachers regarding the integration of students with ASD will be studied. The sample of this study consisted of eighty-five (85) primary school teachers, including as a factor their knowledge in the inclusion of children with autism in general school. The study used the quantitative approach to investigate these views and the questionnaire was used as a data collection tool. The results of this study process showed that teachers have a positive attitude towards the inclusion of children with autism in general school, according to them, they believe that the integration in the general school will benefit them more in their socialization but also in the learning process.

(Jury, et al., 2021) studied the students with autism spectrum disorder (ASD) were less included within mainstream educational systems. The study argued that teachers' attitudes toward their inclusion represent a key factor to understand this issue. Based on previous research showing that teachers are frequently reluctant to include them in mainstream education, they hypothesized that teachers' attitudes could be predicted by the specific difficulties faced by these students. The study method was about one thousand and sixty-four teachers were asked to express their attitudes toward the inclusion of students with ASD in an online questionnaire. The co-occurring difficulties that students with ASD could face were experimentally manipulated through brief information depicting specific set of difficulties. The study showed that the



teachers expressed more positive attitudes toward the inclusion of students with ASD with no difficulties, in comparison with those with behavioral difficulties, behavioral and cognitive difficulties, or those for whom difficulties were not specified – the control condition. The study obtained that unexpectedly, teachers were not more positive regarding the inclusion of students with ASD with no difficulties in comparison with those with cognitive difficulties. The study concluded that without specific information, it seems that teachers spontaneously associated ASD with behavioral difficulties and that teachers' attitudes were the most negative for students facing such difficulties (regardless of the presence or absence of cognitive difficulties). The study suggested that attitudes toward the inclusion of these students can be positive; these results seem to corroborate that used of broader categories like "students with ASD" could be discussed

(Mohamed, et al., 2022) explored the users' perceptions of using the Picture Exchange Speech System (PECS). Where the PECS is written in English and designed for Autism Spectrum Disorder (ASD) children. The questions of this study were: (1) what are the parents' positive perceptions of using PECS in English for ASD children? , (2) what are the parents' negative perceptions of using PECS in English for ASD children? This study carried out by using a case study approach where the researchers interviewed 5 occupational therapists and 4 parents with ASD children. The Data of this study were collected through focus-group interviews and open-ended survey via Google Meet and WHATSAPP. The findings for question (1) were :( 1) Using PECS in English enhances ASD children's learning, (2) Using PECS in English improves ASD children's speech skills. (3) PECS in English promotes bilingualism for ASD children. The findings for question (2) were: (1) PECS in English is not suitable for children of all ages.,(2) PECS in English is not ideal for collaborative learning for low-function ASD children. This study could help parents with ASD children to utilize PECS in English to teach them new skills appropriately.

(Justin, et al., 2022) showed that the researchers and interventionists, particularly behavior analysts, have a long history of empirically evaluating and clinically implementing interventions related to stereotypic behaviors for autistics individuals diagnosed with autism spectrum disorder. Despite evidence of the effectiveness of these procedures in decreasing stereotypic behaviors and establishing adaptive competing repertoires, some neurodiversity activists have increasingly expressed concerns about interventions related to stereotypic behaviors. The purpose of this study was to recognize some of the issues raised by various sources, underscore the importance of including consumers in the selection of goals and methods of intervention from a social validity perspective, discuss balancing concerns with the right to effective behavioral treatment, and consider areas of overlap, reconciliation, and discourse. They urged behavior analysts to continue to include relevant consumers in the selection of goals and intervention, ensure effective behavioral treatment, and approach addressing stereotypic behavior from a place of compassion and caring for their clients.

(Nauman, and Ingersoll, 2023) studied the Motor Stereotypy has a similar presentation in individuals with and without autism. The study showed the attention dysfunction is common in those with motor stereotypy who do not have autism spectrum disorder (ASD). The study showed that a possible link between attention dysfunction and motor stereotypy in ASD remains to be examined. The study hypothesized a positive relationship between attention problems and motor stereotypy in individuals with ASD and that attention problems account for changes in stereotypy over time. The study Method was examined the relationship between attention problems and motor stereotypy concurrently and over time in a sample of youth with ASD from the Simons Simplex Collection (N = 2568). The Caregiver reported measured an including the Child Behavior Checklist, Repetitive Behavior Scale-Revised, and Social Responsiveness Scales were used to measure attention problems, motor stereotypy, and autistic traits, respectively. The study showed that a hierarchical regression controlling for age, sex, intelligence quotient (IQ), and autistic traits indicated attention problems were significantly associated with motor stereotypy at time 1 (participant's initial date intake) for the full sample and at time 2 (participant's second data intake) for a follow-up subsample of youth (N = 233). The follow up sample of this study was the subsample of participants with data from a second time point. The Hierarchical regression with the follow-up sample controlling for age, sex, IQ, autistic traits, and motor stereotypy at time 1 revealed that the motor stereotypy did not predict change in attention problems over time. The study concluded that the further investigation into the relationship between attention dysfunction and motor stereotypy could provide insight into developmental challenges indicated by motor stereotypy.

(Nauman, 2023) studied the Motor stereotypy was a type of repetitive motor behavior frequently occurring in autism spectrum disorder (ASD). The study said that the individuals with maladaptive daydreaming (MD) report repetitive motor behavior associated with addictive and immersive daydreaming. The study obtained that many autistic self-advocates report symptoms of MD. The Motor stereotypy in ASD was associated with lower cognitive and adaptive functioning; yet, research has not thoroughly examined the relationship between

MD and ASD. The study showed that the purpose of this commentary is to briefly summarize the potential overlap between ASD and MD and highlight similarities and differences between the two. The study concluded there was reason to believe MD symptoms are common in ASD and require further understanding for proper treatment and intervention.

(Athbah, 2023) determined the special education services level provided in Saudi Arabia for students with ASD from the perspective of the service providers and to find out if there were substantial discrepancies in the services offered level attributed to gender, academic qualification, and educational experience. The data of study collected from questionnaire was created, and the study sample consisted of special education centers in Asir governorate, which provides ASD students with educational services, (12) centers were chosen randomly. The results of this study showed that the means score ranged between (2.61 to 3.59), the educational environment was rated first with a mean of (3.59), followed by programs and services with a mean of (3.57), and evaluation with a mean of (3.49). The educational environment was placed last with a mean of (3.59). (2.61). The study obtained that the overall mean score of the instrument was (3.31), indicating that the services level offered to ASD students in Saudi Arabia Special Education Centre's was moderate. Furthermore, the findings showed that no differences with statistical significance were found in the degree of services provided by service providers to ASD students based on the variable (gender, experience, and educational qualification).

(Nader, et al., 2023) studied the Social Skills Improvement System Rating Scales (SSIS-RS) evaluates three domains of social functioning: social skills, problem behaviors, and academic competence. The study showed that the SSIS-RS is a widely used social skills assessment for autistic children, but the validity of this measure for use with this heterogeneous population has yet to be confirmed. The study used data from a previous large-scale investigation by the National Professional Development Center on Autism Spectrum Disorder, this study explored the factor structure of the SSIS-RS, examined how autistic children were rated using the SSIS-RS, and evaluated how scores on the SSIS-RS were related to special education placement. The study showed that the confirmatory and Exploratory Factor Analysis examined the factor structure of the SSIS-RS for a sample of 492 autistic children, ages four to 12. An independent samples t-test using subscale score of the SSIS-RS was conducted to evaluate differences between autistic children learning in different educational settings. The study showed an EFA yielded a 4-factor solution and support the internal validity of the SSIS-RS. Subscale scores for social skills, problem behavior, and academic competence differed significantly between students in general and separate settings with academic performance scores differing much less than social skills or behavior. The study examined strengths and weaknesses of the SSIS-RS as a tool for assessing autistic children through discussion of items removed from and retained in the model. Discussion of results includes implications for teacher interpretations of SSIS-RS scores, recommendations for modifications to the measure, and insights about educational placement and inclusive programming.

### ***Comment on previous studies:***

1. The objectives of previous studies varied, some of which focused on the goal of evaluating the programs and services provided by special education centers to their students with autism spectrum disorder (Al-Ghurair, 2016; Al-Qawasmeh, 2016; Khadr, 2017; Al-Shehri,2021), while studies (Ruble ,2010; Al-Hamidi, 2013) were limited to An evaluation of the individual educational plan in autism programs, and the current study focuses on evaluating the supportive educational programs in their relationship to stereotypical repetitive behaviors (Al-Shehri,2021).
2. In a number of previous studies, the sample was autistic students, such as the study (Ruble, 2010), while the sample was teaching members (Hamidi ,2013; Khadr, 2017; Al-Shehri,2021), the sample was institutions (Al-Ghurair, 2016; Al-Sammadi and Shukani, 2018; Mohamed, 2020), as The application of the study samples differed according to the place. There are studies that were applied in Saudi Arabia (Hamidi, 2013; Al-Qawasmeh, 2016; Al-Shehri,2021) and studies in Jordan (Al-Ghurair, 2016; Al-Sammadi and Shukani 2018), and in the current study the research sample will be teachers of autism centers and programs in the Hail region in Saudi Arabia.
3. Most studies provide questionnaires to achieve the objectives of the study, such as a questionnaire on the quality of the educational program and the characteristics of the school, the teacher, and the child in the study (Ruble, 2010), and a questionnaire on the opinions of autism teachers about the programs and services provided in special education centers (Khader, 2017; Mohamed, 2020; Al-Shehri,2021), and in the current study will prepare a questionnaire for the opinions of autism teachers in autism centers in the Hail region about their vision of supportive educational services (computer programs and audio-visual aids) as well as a guide for teacher observation of the stereotypical repetitive behaviors of autistic students within these centers.

**Study methodology and tools:****Study methodology:**

The current study is of the type of descriptive survey studies since it attempts to evaluate teachers dealing with students with autism spectrum disorder in educational institutions that care for them and train them in supportive educational programs and their relationship to reducing stereotypical repetitive behaviors. The study also relies on the differential approach, which examines the differences in teachers' evaluation averages supportive educational programs in relation to stereotypical repetitive behaviors depending on the type of institution (governmental, private), academic qualification, teacher's rank, or years of experience.

**Study population:**

The study population will consist of 300 teachers of children with autism spectrum disorder in the 2023/2024 academic year in autism programs affiliated with the General Administration of Education in the Makkah Al-Mukarramah region.

**The study sample:**

The study sample (random) included teachers of children with autism spectrum disorder in autism programs in the city of Hail. Their original number was 180 teachers with various qualifications (bachelor's or postgraduate studies) and with various years of experience and from government and private sector institutions in the Education Administration of the Makkah Al-Mukarramah region. Their data was identified through a teacher data form designed for this purpose. The following are the demographic characteristics of the study sample:

**Gender:** The data in Table (1) showed that the percentage of female teachers working in support services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region was higher than the percentage of males, as the percentage of females was about 58.3% compared to about 41.7% of males. The increase in the percentage of females over males in the study population in general is due to the difference between the number of females and the number of males working in support services for students with autism spectrum disorder in the study population, and this is due to the fact that this difference may be due to the tendency of the General Administration Council for Education in the Hail region to attract female teachers over males to work in the services. Support for students with autism spectrum disorder.

**Academic qualification:** The study data showed that the university academic qualification was the predominant category for workers in support services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region in the study community, where the percentage reached about 71.7%. Next comes the post-university educational level who hold a master's and doctorate at about 21.1%, while the percentage of teachers working at the intermediate educational level reached about 7.2% of the total workers in support services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region in the study population - Table (1).

**Years of experience:** It appears from the data in Table (1) that despite the differences in specializations and the differences in interests in education administration in the Hail region in the study population, years of experience are among the most important variables related to job achievement. The study divided the work period starting from one year to less than 5. years, then from 5 years to less than 10 years, then from 10 years and more, where the majority percentage of workers in support services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region in the study population from 1 year to less than 5 years represented about 47.2%, then came After that, workers from 10 years or more, where their percentage reached about 30.6%, then workers from 5 years to less than 10 years, where their percentage reached about 22.2%.

**Type of school:** As for the type of school in the study sample community, the results of the study showed that the predominant category are government schools, where their percentage reached about 60.6%, as these schools are characterized by a high number of students and general staff in them, then private schools in the second stage, where their percentage reached about 39.4% of The total sample of the study population.

**Table (1): Distribution of sample members according to study variables (gender, academic qualification, years of experience, type of school)**

| variable            | Category                         | Number     | Percentage%  | Ranking |
|---------------------|----------------------------------|------------|--------------|---------|
| Sex                 | male                             | 75         | 41.7         | 2       |
|                     | feminine                         | 105        | 58.3         | 1       |
|                     | <b>Total</b>                     | <b>180</b> | <b>100</b>   |         |
| Qualification       | Middle Certification             | 13         | 7.2          | 3       |
|                     | High qualified                   | 129        | 71.7         | 1       |
|                     | Postgraduate                     | 38         | 21.1         | 2       |
|                     | <b>Total</b>                     | <b>180</b> | <b>100</b>   |         |
| Years of Experience | From 1 year to less than 5 years | 85         | 47.2         | 1       |
|                     | From 5 to less than 10 years     | 40         | 22.2         | 3       |
|                     | 10 years and more                | 55         | 30.6         | 2       |
|                     | <b>Total</b>                     | <b>180</b> | <b>100</b>   |         |
| School type         | Governmental                     | 109        | 60.6         | 1       |
|                     | private                          | 71         | 39.4         | 2       |
|                     | <b>Total</b>                     | <b>180</b> | <b>100.0</b> |         |

Source: Collected and calculated from the research sample questionnaire

#### **Study tools:**

1- Initial information form for the teacher.

2- A questionnaire for teachers' evaluation of supportive educational programs in institutions caring for children with autism spectrum disorder.

3 - A guide to the teacher's observation of the stereotypical repetitive behaviors of autistic children.

To complete the preparation, construction and design of the standard tools (two tools), they were presented to a specialized group of arbitrators in the field of mental health and special education to express their opinion on them in terms of their purpose and their vision of the dimensions and expressions and the extent to which they achieve the objectives of the current study, clarifying their amendments and suggestions for what is worth it until the tool reached the form Best for final application.

#### **Internal consistency of the study tool:**

After ensuring the apparent validity of the tools, the study calculated the correlation coefficient (Pearson) to determine the extent of consistency of each individual statement with the total sum of statements to which each individual paragraph belongs.

The validity of the internal consistency of the scale was verified by applying the scale to a survey sample consisting of (25) teachers from outside the study sample, then calculating the values of the Pearson correlation coefficient, and all of these values were statistically significant at the significance level (0.01). Also, all values of the correlation coefficient were higher than (0.3), as these values are considered acceptable for keeping the statements within the scale (Odeh, 2010), and thus all the statements of the scale were accepted, and the scale in its final form consisted of (25) statements - Table (2).

**Table (2): Results of correlation, reliability and validity coefficients between statements evaluating support services for students with autism spectrum disorder in schools of the General Administration of Education in the Hail region from the point of view of their teachers**

| Phrase | Correlation coef. | Significant | Cronbach's Alpha | coefficient validity |
|--------|-------------------|-------------|------------------|----------------------|
| 1      | 0.410             | 0.004       | 0.581            | 0.762                |
| 2      | 0.401             | 0.004       | 0.573            | 0.757                |
| 3      | 0.382             | 0.004       | 0.553            | 0.743                |
| 4      | 0.381             | 0.004       | 0.552            | 0.743                |
| 5      | 0.487             | 0.005       | 0.655            | 0.810                |
| 6      | 0.340             | 0.003       | 0.508            | 0.713                |
| 7      | 0.578             | 0.006       | 0.733            | 0.856                |
| 8      | 0.394             | 0.004       | 0.566            | 0.752                |
| 9      | 0.382             | 0.004       | 0.553            | 0.744                |
| 10     | 0.412             | 0.004       | 0.584            | 0.764                |

|    |       |       |       |       |
|----|-------|-------|-------|-------|
| 11 | 0.470 | 0.005 | 0.640 | 0.800 |
| 12 | 0.430 | 0.004 | 0.601 | 0.775 |
| 13 | 0.415 | 0.004 | 0.587 | 0.766 |
| 14 | 0.519 | 0.005 | 0.683 | 0.827 |
| 15 | 0.519 | 0.005 | 0.684 | 0.827 |
| 16 | 0.399 | 0.004 | 0.570 | 0.755 |
| 17 | 0.407 | 0.004 | 0.579 | 0.761 |
| 18 | 0.484 | 0.005 | 0.653 | 0.808 |
| 19 | 0.428 | 0.004 | 0.600 | 0.775 |
| 20 | 0.360 | 0.004 | 0.529 | 0.727 |
| 21 | 0.354 | 0.004 | 0.523 | 0.723 |
| 22 | 0.474 | 0.005 | 0.644 | 0.802 |
| 23 | 0.350 | 0.003 | 0.518 | 0.720 |
| 24 | 0.445 | 0.004 | 0.616 | 0.785 |
| 25 | 0.461 | 0.005 | 0.631 | 0.794 |

**Source:** Collected and calculated from the analysis of the research sample using SPSS.

The construct validity of the scale was verified by calculating the values of the inter-correlation coefficients between the scale axes and the scale's total score, using the Pearson correlation coefficient. All of these values were statistically significant at the significance level (0.01), which reflects an acceptable degree of construct validity of the scale - Table (3).

The stability of the study tool was also verified by using the Cronbach's Alpha coefficient to verify the stability of the study scale.

**Table (3): Results of correlation, reliability, and validity coefficients between each axis and the total axes of the research sample**

| Axes | Correlation coef. | Significant | Cronbach's Alpha | coefficient validity |
|------|-------------------|-------------|------------------|----------------------|
| 1    | 0.369             | 0.003       | 0.424            | 0.651                |
| 2    | 0.449             | 0.004       | 0.619            | 0.787                |
| 3    | 0.360             | 0.004       | 0.530            | 0.728                |
| 4    | 0.553             | 0.006       | 0.712            | 0.844                |
| 5    | 0.576             | 0.006       | 0.731            | 0.855                |

**Source:** Collected and calculated from the analysis of the research sample using SPSS.

**Correction of the scale:** The scale for evaluating support services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers in its final form consisted of (25) statements distributed over five axes. The answers to the statements were divided on an ordinal basis, as the variable expresses three options (Agree, Somewhat Agree, Disagree), and the numbers entered in the program express the weights, which are (Agree = 3, somewhat agree = 2, Disagree = 1). Then we calculate the arithmetic average (weighted average), where The length of each category was determined from a three-way Likert scale, where the length of the period is calculated first and is the result of dividing the number of spaces by the number of choices (where the number of spaces is two spaces - the first distance is from 1 to 2, the second distance is from 2 to 3). While the number of choices is three, the result is the length of the period and equals 0.7, where the distribution becomes as shown in Table (4).

**Table (4): Distribution of period length**

| level          | Weighted average |
|----------------|------------------|
| Disagree       | من 1 إلى 1.69    |
| Somewhat agree | من 1.7 إلى 2.29  |
| Agree          | من 2.3 إلى 3.0   |

#### **Study procedures:**

To achieve the objectives of the study, the researcher reviewed studies, research and literature related to teachers' vision of educational programs applied within educational institutions, and followed the following steps and procedures:

- Preparing, building and designing the study tools
- Reviewing study tools
- Applying the tools to a survey sample
- Calculating the validity and reliability implications of the scales under study
- Applying the tools to members of the original sample of the study
- Data dumping and metrics correction
- Collecting the scores received from the scales
- Statistical analysis of grades
- Interpreting the results received from the statistical analysis and linking these results to the results of previous studies
- Providing educational recommendations and proposed research prepared in the future by other researchers
- Write a summary and abstract of the study in Arabic and foreign languages

**Statistical processing methods:** The data were statistically processed using the Statistical Program for the Social Sciences (SPSS), in order to answer the first question of the study, where the arithmetic means and standard deviations were calculated for the response of the study sample members to the statements and axes of evaluating support services for students with autism spectrum disorder in public administration schools Education in the Hail region from the point of view of their teachers. As for answering the second question of the study, a one-way analysis of variance (one-way ANOVA) was used to identify the extent of the presence of statistically significant differences between the average responses of the study sample members, and a test for two independent samples (t) was also used (Test-T Samples Independent), to determine whether there are statistically significant differences between the average responses of the study sample members or not.

#### **Results of the survey and their discussion:**

##### **The first question: What is the reality of support services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers?**

To answer the first question of the study: Arithmetic means and standard deviations were calculated for the responses of the study sample members to the axes measuring the evaluation of support services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers - Table (5).

The results of studying the results of the five axes of the research study sample showed that the first axis, which is the role of health services, which includes five statements, received an average of 2.04, meaning somewhat agreeable. While the average of the second axis, which is related to psychological integration treatment services, was about 2.07, meaning somewhat agreeable. While the average of the third axis, which is related to occupational therapy services, was about 2.04, meaning somewhat agreeable. The average of the fourth axis, which is related to speech services, was about 2.83, meaning agree. The average of the fifth axis, which is related to psychological and counseling services, was about 2.87, meaning agree. It was also shown that the total number of topics related to supportive services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers obtained an average of about 2.37, i.e. approval of the supportive services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers.

**Table (5): Results of arithmetic means and standard deviations for the responses of the study sample members to the axes measuring the evaluation of support services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers.**

| Axes                                  | Mean        | Standard Deviation | Weighted %   | Result         |
|---------------------------------------|-------------|--------------------|--------------|----------------|
| Health Services                       | 2.04        | 0.15               | 0.681        | Somewhat Agree |
| Sensory integration therapy services  | 2.07        | 0.16               | 0.691        | Somewhat Agree |
| Occupational therapy services         | 2.04        | 0.16               | 0.680        | Somewhat Agree |
| Speech services                       | 2.83        | 0.19               | 0.943        | Agree          |
| Psychological and counseling services | 2.87        | 0.18               | 0.958        | Agree          |
| <b>Total Axes</b>                     | <b>2.37</b> | <b>0.17</b>        | <b>0.791</b> | <b>Agree</b>   |

**Source:** Collected and calculated from the analysis of the research sample using SPSS.

In light of the results of the previous table and by arranging the statements of the five axes related to measuring support services for students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers, in descending order according to the average and weighted relative strength of each of the statements of each axis separately, it turns out that:

***The first axis: The role of health services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers.***

It was shown from the results of Table (6) that the weighted average of the first axis was about 2.04, with a standard deviation of about 0.15, and a weighted relative strength of about 68.1%, which indicates that there is a relative significance to some extent on the importance of the role of health services provided to students with autism spectrum disorder in Schools of the General Administration of Education in Hail region from the point of view of their teachers. All statements about the role of health services fell within the category of somewhat agreeable (to a moderate degree), the highest being the statement “A health care is available for conditions (epilepsy - chest diseases - allergies, foods/medications,.) for each student when needed,” with an arithmetic average of about 2.05, followed by the phrase “afflicted students are followed up periodically” with an average of about 2.05, then the phrase “there is an appropriate health unit in the school” with an average of about 2.04, followed by the phrase “a special file is prepared on the health status of each student with autism spectrum disorder” with an average of about 2.04. Then there is a phrase: The health status of infected students is checked periodically in the school, with an arithmetic average of about 2.04.

***The second axis: The role of sensory integration treatment services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers.***

It was shown through the results of Table (7) that the weighted average for the second axis reached about 2.07, with a standard deviation of about 0.16, and a weighted relative strength of about 69.1%, which indicates that there is a relative significance to some extent on the importance of the role of sensory integration treatment services provided to students with spectrum disorders autism in the schools of the General Administration of Education in the Hail region from the point of view of their teachers. All of the statements about the role of sensory integration therapy services came within the category of agreement to some extent (to a moderate degree), the highest of which was the statement that the school has a sensory integration treatment unit, with a mean of about 2.21, followed by the statement that sensory problems are identified (increase/decrease in auditory, tactile sensitivity (Visual) for students with autism spectrum disorder, with a mean of about 2.06, then the phrase “The sensory needs of students with the condition are taken into account by making physical adjustments within the classroom and school (reducing - increasing - modifying - isolating,..)” with a mean of about 2.04, followed by the phrase “It can be solved.” Behavioral problems (excessive motor activity - repetitive stereotypical behaviors - aggressive behavior) by taking into account the sensory needs of the affected students with an arithmetic average of about 2.03, then the phrase “The class teacher receives the necessary training courses on the students’ sensory problems and how to deal with them” with an arithmetic average of about 2.02.

***The third axis: The role of occupational therapy services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers.***

It was shown through the results of Table (8) that the weighted average of the third axis reached about 2.04, with a standard deviation of about 0.16, and a weighted relative strength of about 68%, which indicates that there is a relative significance to some extent on the importance of the role of occupational therapy services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers. All statements about the role of occupational therapy services fell within the category of agreement to some extent (to a moderate degree), the highest being the statement “The family is trained in occupational therapy exercises,” with a mean of about 2.06, followed by the statement “There is an occupational therapy unit in the school,” with a mean of about 2.05. Then there is a phrase: The needs of students with autism spectrum disorder are evaluated in school for occupational therapy services according to codified standards with a mean of about 2.04, followed by a phrase: An individual plan for the goals of occupational therapy is prepared with a mean of about 2.03, then a

phrase: Appropriate tools are used in the occupational therapy room, such as: (balls - hoops - trampolines - pressure pads) with an arithmetic average of about 2.01.

**The fourth axis: The role of speech services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers.**

It was shown through the results of Table (9) that the weighted average for the fourth axis reached about 2.86, with a standard deviation of about 0.19, and a weighted relative strength of about 94.3%, which indicates that there is a relative indication of agreement with the importance of the role of speech services provided to students with autism spectrum disorder in schools. The General Administration of Education in Hail Region from the point of view of their teachers. All of the statements about the role of speech services fell within the approval category, the highest of which was the statement that the school has a speech unit, with an average score of about 2.86, followed by the statement that speech services contribute to the acquisition of speech and social interaction skills for students with disabilities, with an average score of about 2.85, then the phrase "preparing an individual plan." For students with autism spectrum disorder, for speech goals, with an average of about 2.82, followed by an assessment of the needs of students with autism spectrum disorder for speech services using standardized tests by a specialist, with an average of about 2.82, then a statement, "A weekly schedule is prepared for the number of hours of speech sessions for students with an autism spectrum disorder with a mean score of about 2.79.

**The fifth axis: The role of psychological and counseling services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers.**

It was shown from the results of Table (10) that the weighted mean of the fifth axis was about 2.87, with a standard deviation of about 0.18, and a weighted relative strength of about 95.8%, which indicates that there is a relative indication of agreement with the importance of the role of psychological and counseling services provided to students with autism spectrum disorder in Schools of the General Administration of Education in Hail region from the point of view of their teachers. All statements about the role of psychological and counseling services came within the category of approval. The highest was the statement "providing psychological and counseling services to families of students with autism spectrum disorder," with a mean of about 2.9, followed by "the psychological and counseling services use appropriate tools to modify behavior," with a mean of about 2.88. The phrase "psychological and counseling services contribute to solving behavioral problems for students with autism spectrum disorder" has a mean of about 2.87, followed by "students with autism spectrum disorder receive behavior modification sessions" with a mean of about 2.86, then the phrase "the school has a psychological and counseling services unit" with a mean of about 2.86.

**Table (6): The first axis related to the role of health services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers**

| Phrase  | Agree | %  | Somewhat agree | %  | Disagree | % | Mean | Standard Deviation | Weighted % | Result         | Ranking |
|---|-------|----|----------------|----|----------|---|------|--------------------|------------|----------------|---------|
| The school examines the health status of infected students periodically   | 15    | 8  | 157            | 87 | 8        | 4 | 2.04 | 0.36               | 0.680      | Somewhat Agree | 5       |
| The school has a suitable health unit   | 17    | 9  | 154            | 86 | 9        | 5 | 2.04 | 0.38               | 0.681      | Somewhat Agree | 3       |
| A health status file is prepared for each student with autism spectrum disorder   | 13    | 7  | 161            | 89 | 6        | 3 | 2.04 | 0.32               | 0.680      | Somewhat Agree | 4       |
| A health card for conditions (epilepsy - chest diseases - allergies, foods/medications,...) is available for each student when needed | 16    | 9  | 157            | 87 | 7        | 4 | 2.05 | 0.35               | 0.683      | Somewhat Agree | 1       |
| Infected students are followed up periodically  | 18    | 10 | 153            | 85 | 9        | 5 | 2.05 | 0.39               | 0.683      | Somewhat Agree | 2       |
| Total axis  | 79    | 9  | 782            | 87 | 39       | 4 | 2.04 | 0.15               | 0.681      | Somewhat Agree |         |

**Source:** Collected and calculated from the analysis of the research sample.

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**Table (7): The second axis related to the role of sensory integration treatment services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers**

| Phrase  | Agree | %  | Somewhat agree | %  | Disagree | % | Mean | Standard Deviation | Weighted % | Result         | Ranking |
|---|-------|----|----------------|----|----------|---|------|--------------------|------------|----------------|---------|
| The classroom teacher receives the necessary training courses on students' sensory problems and how to deal with them   | 11    | 6  | 161            | 89 | 8        | 4 | 2.02 | 0.33               | 0.672      | Somewhat agree | 5       |
| The school has a Sensory Integration Therapy Unit.  | 43    | 24 | 132            | 73 | 5        | 3 | 2.21 | 0.47               | 0.737      | Somewhat agree | 1       |
| Sensory problems (increased/decreased auditory, tactile, and visual sensitivity) are identified for students with autism spectrum disorder  | 17    | 9  | 157            | 87 | 6        | 3 | 2.06 | 0.35               | 0.687      | Somewhat agree | 2       |
| The sensory needs of affected students are taken into account by making physical adjustments within the classroom and school (reducing - increasing - modifying - isolating....)    | 15    | 8  | 158            | 88 | 7        | 4 | 2.04 | 0.35               | 0.681      | Somewhat agree | 3       |
| Behavioral problems (excessive motor activity - repetitive stereotyped behavior - aggressive behavior) can be solved by taking into account the sensory needs of affected students. | 14    | 8  | 157            | 87 | 9        | 5 | 2.03 | 0.36               | 0.676      | Somewhat agree | 4       |
| Total axis  | 100   | 11 | 765            | 85 | 35       | 4 | 2.07 | 0.16               | 0.691      | Somewhat agree |         |

**Source:** Collected and calculated from the analysis of the research sample.

**Table (8): The third axis related to the role of occupational therapy services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers**

| Phrase   | Agree | % | Somewhat agree | %  | Disagree | % | Mean | Standard Deviation | Weighted % | Result         | Ranking |
|--|-------|---|----------------|----|----------|---|------|--------------------|------------|----------------|---------|
| The family is trained in occupational therapy exercises  | 17    | 9 | 157            | 87 | 6        | 3 | 2.06 | 0.35               | 0.687      | Somewhat agree | 1       |
| At the school, the needs of students with autism spectrum disorder are evaluated for occupational therapy services according to standardized standards | 16    | 9 | 156            | 87 | 8        | 4 | 2.04 | 0.36               | 0.681      | Somewhat agree | 3       |
| An individual plan is prepared for the goals of occupational therapy   | 13    | 7 | 160            | 89 | 7        | 4 | 2.03 | 0.33               | 0.678      | Somewhat agree | 4       |
| The school has an occupational therapy unit  | 15    | 8 | 159            | 88 | 6        | 3 | 2.05 | 0.34               | 0.683      | Somewhat agree | 2       |
| Appropriate tools are used in the occupational therapy room, such as: (balls, hoops, trampolines, and pressure pads).                                  | 10    | 6 | 162            | 90 | 8        | 4 | 2.01 | 0.32               | 0.670      | Somewhat agree | 5       |
| Total axis   | 71    | 8 | 794            | 88 | 35       | 4 | 2.04 | 0.16               | 0.680      | Somewhat agree |         |

**Source:** Collected and calculated from the analysis of the research sample.

**Table (9): The fourth axis related to the role of speech services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers**

| Phrase  | Agree | %  | Somewhat agree | %  | Disagree | % | Mean | Standard Deviation | Weighted % | Result | Ranking |
|---|-------|----|----------------|----|----------|---|------|--------------------|------------|--------|---------|
| Evaluating the needs of students with autism spectrum disorder for speech services using standardized tests by a specialist | 156   | 87 | 16             | 9  | 8        | 4 | 2.82 | 0.49               | 0.941      | Agree  | 4       |
| A weekly schedule is prepared for the number of hours of speech sessions for students with autism spectrum disorder         | 152   | 84 | 19             | 11 | 9        | 5 | 2.79 | 0.51               | 0.931      | Agree  | 5       |
| The school has a speech unit  | 160   | 89 | 14             | 8  | 6        | 3 | 2.86 | 0.44               | 0.952      | Agree  | 1       |
| Speech services contribute to the acquisition of speech and social interaction skills for affected students                 | 158   | 88 | 17             | 9  | 5        | 3 | 2.85 | 0.43               | 0.950      | Agree  | 2       |
| Preparing an individual plan for students with autism spectrum disorder for speech goals                                    | 155   | 86 | 18             | 10 | 7        | 4 | 2.82 | 0.47               | 0.941      | Agree  | 3       |
| Total axis  | 781   | 87 | 84             | 9  | 35       | 4 | 2.83 | 0.19               | 0.943      | Agree  |         |

Source: Collected and calculated from the analysis of the research sample.

**Table (10): The fifth axis related to the role of psychological treatment and counseling services provided to students with autism spectrum disorder in the schools of the General Administration of Education in the Hail region from the point of view of their teachers**

| Phrase   | Agree | %  | Somewhat agree | % | Disagree | % | Mean | Standard Deviation | Weighted % | Result | Ranking |
|--|-------|----|----------------|---|----------|---|------|--------------------|------------|--------|---------|
| Psychological and counseling services contribute to solving behavioral problems for students with autism spectrum disorder | 162   | 90 | 12             | 7 | 6        | 3 | 2.87 | 0.43               | 0.956      | Agree  | 3       |
| The school has a psychological and counseling services unit  | 161   | 89 | 12             | 7 | 7        | 4 | 2.86 | 0.45               | 0.952      | Agree  | 5       |
| Psychological and counseling services use appropriate tools to modify behavior   | 165   | 92 | 9              | 5 | 6        | 3 | 2.88 | 0.41               | 0.961      | Agree  | 2       |
| Students with autism spectrum disorder receive behavior modification sessions  | 162   | 90 | 11             | 6 | 7        | 4 | 2.86 | 0.45               | 0.954      | Agree  | 4       |
| It provides psychological and counseling services to families of students with autism spectrum disorder                    | 166   | 92 | 10             | 6 | 4        | 2 | 2.90 | 0.37               | 0.967      | Agree  | 1       |
| Total axis   | 816   | 91 | 54             | 6 | 30       | 3 | 2.87 | 0.18               | 0.958      | Agree  |         |

Source: Collected and calculated from the analysis of the research sample.

**The second question: Are there statistically significant differences at the significance level ( $\alpha = 0.05$ ) in the averages of teachers' evaluation of the supportive services provided to students with autism spectrum disorder due to the variables (gender - academic qualification - years of experience - type of school)?**

To reveal the extent to which there are statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of supportive services provided to students with autism spectrum disorder in the city of Hail according to the teacher's gender variable, the (Independent Samples T test) was used, as it was shown that Table (11): There are statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of female teachers' responses to the role of health services due to the gender variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ )

between the averages of the teachers' responses on the role of sensory integration therapy services due to the gender variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of occupational therapy services due to the gender variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses to the role of speech services due to the gender variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses to the role of psychological and counseling services due to the gender variable.

**Table (11): Results of the Independent Samples T test to reveal the significance of the differences between the means of evaluation of the teachers of the support services provided to students with autism spectrum disorder in the city of Hail according to the teacher's gender variable.**

| Axes                                  | T        | Sig.  |
|---------------------------------------|----------|-------|
| Health Services                       | -2.963** | 0.000 |
| Sensory integration therapy services  | 0.734    | 0.459 |
| Occupational therapy services         | 0.839    | 0.740 |
| Speech services                       | 0.050    | 0.257 |
| Psychological and counseling services | -1.151   | 0.567 |
| <b>Total Axes</b>                     | -0.738   | 0.751 |

**Source:** Collected and calculated from the analysis of the research sample using SPSS. \*\*Significant at 0.01 level.

To detect the extent of the presence of statistically significant differences at the level of significance ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of supportive services provided to students with autism spectrum disorder in the city of Hail according to the teacher's qualification variable, a one-way (ANOVA) test was used, where table (12) shows that there are statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses to the role of health services due to the qualification variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of the teachers' responses on the role of sensory integration therapy services due to the qualification variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of occupational therapy services due to the qualification variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses to the role of speech services due to the qualification variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of psychological and counseling services due to the qualification variable.

**Table (12): Results of the (one-way ANOVA) test to reveal the significance of the differences between the means of evaluation of the teachers of the support services provided to students with autism spectrum disorder in the city of Hail according to the teacher's qualification variable.**

| Axes                                  | F       | Sig.  |
|---------------------------------------|---------|-------|
| Health Services                       | 6.945** | 0.001 |
| Sensory integration therapy services  | 0.466   | 0.628 |
| Occupational therapy services         | 0.370   | 0.691 |
| Speech services                       | 1.975   | 0.142 |
| Psychological and counseling services | 1.691   | 0.187 |
| <b>Total Axes</b>                     | 1.210   | 0.301 |

**Source:** Collected and calculated from the analysis of the research sample using SPSS. \*\*Significant at 0.01 level.

To detect the extent of the presence of statistically significant differences at the level of significance ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of supportive services provided to students with autism spectrum disorder in the city of Hail according to the variable of years of teacher experience, a one-way ANOVA test was used. It was shown from Table (13) that there were no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses to the role of health services due to the years of experience variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of the teachers' responses on the role of sensory integration therapy services due to the years of experience variable. There are no statistically significant

differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of occupational therapy services due to the years of experience variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses to the role of speech services due to the years of experience variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses to the role of psychological and counseling services due to the years of experience variable. It was also shown that there were no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of supportive services provided to students with autism spectrum disorder in the city of Hail according to the variable of the teacher's years of experience, using the (Scheffe) test.

**Table (13): Results of the one-way ANOVA test and the Scheffe test to reveal the significance of the differences between the means of evaluation of the teachers of the support services provided to students with autism spectrum disorder in the city of Hail according to the variable of the teacher's years of experience.**

| Axes                                  | F     | Sig.  | Sig. Scheffe |
|---------------------------------------|-------|-------|--------------|
| Health Services                       | 0.089 | 0.915 | 0.947        |
| Sensory integration therapy services  | 0.257 | 0.774 | 0.746        |
| Occupational therapy services         | 2.873 | 0.072 | 0.139        |
| Speech services                       | 1.534 | 0.219 | 0.174        |
| Psychological and counseling services | 0.172 | 0.842 | 0.871        |
| <b>Total Axes</b>                     | 0.494 | 0.611 | 0.567        |

**Source:** Collected and calculated from the analysis of the research sample using SPSS.

To reveal the extent to which there are statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses to the role of supportive services provided to students with autism spectrum disorder in the city of Hail according to the school type variable, the Independent Samples T test was used, as it was shown from Table (14) - There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of health services due to the school type variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of sensory integration treatment services due to the school type variable. There are statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses on the role of occupational therapy services due to the school type variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses to the role of speech services due to the school type variable. There are no statistically significant differences at the significance level ( $\alpha = 0.05$ ) between the averages of teachers' responses to the role of psychological and counseling services due to the school type variable.

**Table No. (14): Results of the Independent Samples T test to reveal the significance of the differences between the means of evaluation of the teachers of the support services provided to students with autism spectrum disorder in the city of Hail according to the school type variable.**

| Axes                                  | T       | Sig.  |
|---------------------------------------|---------|-------|
| Health Services                       | -0.454  | 0.961 |
| Sensory integration therapy services  | 0.500   | 0.356 |
| Occupational therapy services         | 0.608** | 0.013 |
| Speech services                       | 1.142   | 0.082 |
| Psychological and counseling services | 1.932   | 0.472 |
| <b>Total Axes</b>                     | 1.201   | 0.222 |

**Source:** Collected and calculated from the analysis of the research sample using SPSS. \*\*Significant at 0.01 level.

#### **Recommendations:**

- 1- Conducting many studies on support service programs for children with autism spectrum disorders, especially in the early intervention stage.
- 2- Benefiting from local, regional and international expertise and experiences in the field of care and treatment of children with autism spectrum disorder.

- 3- Organizing the surrounding environment through supportive service programs for children on the autism spectrum to reduce the stereotypical behaviors that appear in autism disorder, creating a family atmosphere suitable for the autistic child to grow naturally, and providing the appropriate psychological and social climate for the development of a normal personality.
- 4- Circular by the Ministry of Health about autism spectrum disorder and ensuring the necessity of health education to detect cases of autism spectrum disorder, and increasing the conduct of autism disorder screening and early screening.
- 5- Importance of teachers' vision of supportive educational programs to reduce stereotypical, repetitive behaviors of students with autism spectrum disorder, and the extent of their role and effectiveness in dealing positively and effectively with many of the behavioral problems that characterize autistic students and not just the problem to be studied.

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