Journal of Al-Farabi for Humanity Sciences Volume (4), Issue (2) August (2024)

ISSN: 2957-3874 (Print)
Journal of Al-Farabi for Humanity Sciences (JFHS)
https://www.iasj.net/iasj/journal/419/issues
مجلة الفارابي للعلوم الإنسانية تصدرها كلية الفارابي الجامعة

Navigating Social Cues Pragmatic Language Use in Autism Spectrum Disorder Intervention Strategies

College of Basic Education
Inst. Hazim Mohammed Ali Khalaf
University of Diyala

التنقل في الإشارات الاجتماعية: استخدام اللغة البراغماتية في استراتيجيات التدخل لاضطراب طيف التوحد

المدرس : حازم محمد علي خلف - كلية التربية الاساسية – جامعة ديالى
Email: basiceng17te@uodiyala.edu.iq

Abstract

The current research aimed at Navigating Social Cues: Pragmatic Language Use in Autism Spectrum Disorder Intervention Strategies, according to some variables, the researcher used the descriptive survey method, the questionnaire was used as a data collection tool, prepared by the researcher, and the research sample consisted of (30) teachers for children with ASD, aged (5-12), and the questionnaire consisted of two dimensions, and the criteria for honesty and fortitude were tested. The results showed that there were no statistically significant differences at the level ($\alpha \leq 0.05$) between average responses of teachers of children with AUTISM in pragmatism according to the sex changer (male/ female), as well as no statistically significant differences at the level of significance ($\alpha \leq 0.05$) among the average responses of teachers of children with autism spectrum disorder in pragmatism according to the child's age change. The presence of a statistically d difference at a level ($\alpha \leq 0.05$) among Averages ranked the responses of teachers of children with autism spectrum disorder in pragmatism according to the change in knowledge of pragmatism disorder for children with ASD. In light of the results, the researcher recommended: adding pragmatic language to a central element in educational programmers and raising and rehabilitating children with autism spectrum disorder, providing appropriate knowledge of autistic children's teachers about developments in pragmatic language disorder, as well as scientific seminars aimed at spreading sustainable knowledge in autism spectrum disorders and pragmatic language.Keywords: Pragmatic language, Pragmatic language disorder, autism spectrum disorder.

ذلاصة

هدف البحث الحالي إلى التعرف على الدلالات الاجتماعية: استخدام اللغة الواقعية في استراتيجيات التدخل لاضطراب طيف التوحد، في ضوء بعض المتغيرات، واستخدم الباحث المنهج الوصفي المسحي، واستخدمت الاستبانة كأداة لجمع البيانات، من إعداد الباحثة، وقد اشتمل البحث على وتكونت عينة الدراسة من (٣٠) معلماً ومعلمة للأطفال ذوي اضطراب طيف التوحد، بأعمار (٥-١٢) سنة، وتكونت الاستبانة من بعدين، وتم اختبار معياري الصدق والثبات. أظهرت النتائج عدم وجود فروق ذات دلالة إحصائية عند مستوى ($\alpha \geq 0.05$) بين متوسطات استجابات معلمي الأطفال المصابين بالتوحد في البراغماتية على وفق مغير الجنس (ذكر / أنثى)، كما لا توجد فروق ذات دلالة إحصائية عند المستوى. وجود دلالة إحصائية ($\alpha \geq 0.05$)بين متوسطات استجابات معلمي الأطفال المصابين باضطراب طيف التوحد في البراغماتية تبعاً لتغير عمر الطفل. وجود فرق إحصائياً عند مستوى ($\alpha \geq 0.05$) بين متوسطات استجابات معلمي الأطفال المصابين باضطراب طيف التوحد في البراغماتية تبعاً للتغير في المعرفة باضطراب البراغماتية لدى الأطفال المصابين باضطراب طيف التوحد. وفي ضوء النتائج أوصى الباحث: إضافة اللغة التداولية إلى عنصر مركزي في البرامج التعليمية وتربية وتأهيل الأطفال المصابين باضطراب طيف التوحد، وتزويد معلمي الأطفال التوحديين بالمعرفة المناسبة حول تطورات اضطراب اللغة التداولية، وكذلك عقد الندوات العلمية الهادفة. في نشر المعرفة المستدامة في اضطرابات طيف التوحد واللغة الواقعية .

الكلمات المفتاحية اللغة التداولية، اضطراب اللغة التداولية، اضطراب اللغة التداولية، اضطراب طيف التوحد.

1. Introduction

The foundation for understanding autism spectrum disorder (ASD) and the real-world difficulties it presents can be attributed to social-communication impairment. Deficits in socialization and communication have an enduring impact on everyday life, significantly reducing quality of life for individuals with ASD (Howlin et al., 2004). Social communication deficits also predict fewer friendships, restricted social networks, and higher rates of social isolation during adulthood (Howlin et al., 2004). Consequently, the social difficulties that are faced by individuals with ASD are not limited to a specific age or time but incur a lifetime of negative consequences. Given these insightful conclusions, it is essential to recognize the complexity of everyday social interactions and the potential it has in affecting positive outcomes for those with ASD (Saban-Bezalel et al., 2024). Furthermore, the persistent nature of the various social deficits emphasizes the need for long-term social intervention involving a wide variety of ages and social contexts. If we wish to improve the quality of life for those on the autism spectrum, it is crucial to understand the various obstacles they face and employ social interventions that will facilitate their engagement in social situations along with fostering lasting relationships. In essence, there is a need to foster social competence for individuals with ASD that will lead to positive social outcomes across their lifespan.

1.1 Background

Existing research has laid some of the groundwork for ASD intervention through behavioral methods focused specifically on reducing problem behaviors. Despite the contributions of behavioral theory and methodology to the understanding of ASD, the literature to date provides little information about how to foster the healthy socio-emotional development of children and adolescents with ASD Considering that social and communicative deficits are paramount among the diagnostic criteria for ASD, intervention approaches narrowly focused on the amelioration of problem behaviors have limited utility for enhancing functioning in this population. Recently, developmental research has begun to elucidate the early emerging social and communicative deficits of ASD to lay the necessary groundwork for the creation of effective interventions. Unfortunately, the gap between basic research on social developmental processes and the development of clinical interventions based on such research is large. Following a review of the above findings, new research conducted over the past several years will be discussed as we consider strategies to support the healthy social and emotional growth of individuals with ASD through effective intervention at various developmental levels. This includes an examination of the processes by which typically developing children acquire essential social competencies and an exploration of how these processes become derailed in children with ASD. Given the complexity and pervasiveness of the social and communicative deficits in ASD, a greater understanding of the developmental psychopathology of these deficits is essential for the creation of interventions which are truly effective. Of critical importance is the understanding that the social and communicative deficits in ASD represent an enormously broad and varied spectrum of difficulties. Essential competencies span a wide range of developmental levels and developmental continuums. An effective intervention must address the unique needs of individuals at different developmental levels and it must do so with a clear indication of the expected outcome at each level. This necessitates a careful match of interventions to the level of the individual's current social and communicative abilities. A central theme throughout this discussion will be the importance of viewing ASD as a disorder of social development with the creation of interventions aimed at supporting the growth of individuals within the context of their communities (Chodura et al., 2021).

1.2 Research problem

Successful communication requires the individual to know what goes beyond the literal meaning of the spoken words, and the grammatical and syntactic aspects of the language, which is represented in the individual’s understanding according to social contexts, which is known as pragmatic language. This includes understanding the implicit meanings and intentions of the speaker that were not explicitly uttered but rather It is understood from the context and method of speech, as well as understanding the verbal and non-verbal hints that indicate these implicit meanings and intentions of the speaker, in addition to the individual’s understanding of language in the context of the environment, social norms, and the nature of the situation in which communication takes place, to integrate all of this with his knowledge of the non-pragmatic aspects of language, that is, the structural aspects of language. Such as Vocabulary, Syntax, and Phonology, in order to ultimately achieve good linguistic communication (Norbury, 2014, 204). These things are difficult to achieve with children with autism spectrum disorder.Children with autism spectrum disorder also suffer from difficulties in the ability to use language correctly to communicate with those around them, which affects their social communicative behavior towards individuals around them. These difficulties in using language in social situations are widespread among children

with autism spectrum disorder, as Deficiencies in the structural aspects of language (sentence construction, word order, semantics and meanings of words, and speech sounds) are a distinctive feature of these children, which appear in them to varying degrees.Considering the problem raised by the current study of pragmatic language and its use in autism spectrum disorder, and in view of the noticeable impact on the lives of children with autism spectrum disorder, especially in the field of communication and social relationships, and after the researcher was informed of available studies such as the study of (Volden, et al., 2008). With its scarcity in the Arabic language, which prompted the researcher to conduct this research, which aims to identify the level of pragmatic language disorder among a sample of children with autism spectrum disorder aged (5-12) in Iraq.Based on the above, the research problem is crystallized in the following main question: What is the level of pragmatic language for children with autism spectrum disorder from the point of view of their teachers?

1.3 research questions

1- What is the level of pragmatic language disorder in children with autism spectrum disorder from the point of view of their teachers?
2- What are the strategies for dealing with pragmatic language disorder in children with autism spectrum disorder?
3- Are there statistically significant differences between the responses of teachers of children with autism spectrum disorder regarding pragmatic language disorder attributed to the variable knowledge of pragmatic language disorder for children with autism spectrum disorder (yes/no)?
4- Are there statistically significant differences between the responses of teachers of children with autism spectrum disorder in pragmatic language disorder due to the variable of the child's age?

1.4 Research objectives

The research aimed to identify the manifestations of pragmatic language disorder in children with autism spectrum disorder from the point of view of their teachers, identify strategies for dealing with pragmatic language disorder in children with autism spectrum disorder, and reveal the differences between teachers' responses in light of some variables.

1.5 Research importance

"The present study holds significant implications for understanding and addressing pragmatic language use in autism spectrum disorder (ASD) intervention strategies. By investigating the pragmatic language abilities of children with ASD and the effectiveness of intervention programs, this research contributes to the development of evidence-based and targeted interventions that can improve social communication skills and overall quality of life for individuals with ASD. But it's important to remember that this study isn't perfect. Thirty people was a pretty small sample size, so the data might not be useful in other cases. Also, answer bias and social choice effects could happen if you only use a poll to get information. There were some problems with the study, but it was more dependable and accurate because it used clear working meanings, standard measurement tools, and statistical analyses. In future studies, these issues should be fixed by using bigger and more diverse groups, more than one way to collect data, and ongoing methods to make sure the results are more accurate and reliable.

2. Literature review

2.1 Understanding Autism Spectrum Disorder (ASD)

More and more attention has been paid to different types of speech problems in people with ASD in recent years. Communication and social skills are very important to how people live and work together. Communication is important for making and keeping friends, sharing knowledge in school and the workplace, and saying what you want and need at the same time. People who have trouble communicating can't fully understand others or be understood themselves (Rosello, et al .2020). Some kids with ASD may have a lot of trouble with these things, especially those who also have cognitive problems. This can make their speech sound bad or break up. Communication skills in people with ASD are very different from one another. Some people never learn how to speak, while others have good vocabulary and spelling but have trouble with the finer points of language, like social niceties or language that isn't meant to be taken literally (Cazalis et al.2022).

Individuals within the autism spectrum disorder (ASD) have pervasive impairments in the development of reciprocal social interaction. Fortunately, this area of socialization is one of the most researched in regards to ASD. Children with ASD have difficulty establishing and maintaining social relationships. People with ASD often fail to develop peer relationships appropriate to their developmental level. Social impairments lead to negative educational and occupational consequences. Social deficiencies remain a major roadblock for individuals with ASD who develop communication and experience life outside of school. Adolescents and young adults with ASD have difficulties in the areas of employment and continuing education. Those with higher levels of social

impairment were less likely to engage in post-school activities or to be independent in self-care. Recent evidence suggests that social and communication skills predict positive long-term outcomes for individuals with Asperger Syndrome. Specialized approaches may therefore need to focus on the improvement of communication and social skills in individuals with high-functioning ASD (Hyman et al.2020).

2.2 Definition and Characteristics of ASD

The DSM-5 outlines two core features that are associated with ASD. The first core feature is persistent deficits in social communication and social interaction across contexts, not just limited to the performance of social roles. Social communication involves the use of verbal and nonverbal communication to exchange information. This would include communication difficulties in understanding metaphor or sarcasm as an example. Furthermore, individuals with ASD have difficulty with the development, maintenance, and understanding relationships. An individual with ASD may have difficulty in sharing imaginative play or in making friends with children of the same age. The second core feature is restricted, repetitive patterns of behavior, interests, or activities. This includes stereotyped motor movements or echolalia and insistent adherence to routines patterns. An individual may have a preoccupation with part of an object, become overly interested with a topic such as weather, or only want to wear clothing with a certain texture (Hyman et al., 2020).Autism spectrum disorder (ASD) is a neurodevelopmental disorder with a wide range of severity and functional impairments. In recent years, the Diagnostic and Statistical Manual of Mental Disorders (DSM) has replaced the terms autism, Asperger's disorder, and pervasive developmental disorder not otherwise specified with the term ASD. The criteria for ASD in the DSM-5 now is the same regardless of the level of severity. The reason for combining these disorders was due to the similarity of the core symptoms and the difficulty in making a categorical distinction between them. However, a distinction can be made on how much support an individual with ASD may need. In the DSM-5, severity is based on social communication impairments and restricted, repetitive behaviors. The features of ASD are usually first noticed between 2 and 3 years of age and continue to last throughout the individual's life (Ferrara et al., 2021).

2.3 Intervention Strategies for Pragmatic Language Use in ASD

When trying to figure out how well solutions work for social communication and functional language, it's important to keep in mind how broad and different these concepts are. Video modeling has recently been shown to be a good way to teach kids with ASD many skills, such as how to start a talk, meet others, show kindness, and make friends (Bellini and Akullian, 2007). A technique called video modeling uses short video clips to show the desired behavior or skill. It has been shown to work well for teaching kids with ASD who learn best by seeing things (Boyd et al., 2007). This way might work really well for teaching certain functional language skills, like how to ask for information, give your opinion, or reply to someone else's question. It remains to be seen, though, whether these skills can be used in other settings and with different people. Plenty of studies have been done on the effectiveness of pivotal response training (PRT) for helping kids with ASD (Koegel et al, 2001). A spontaneous behavioral strategy called PRT tries to improve a wide range of behaviors by focusing on key areas, also known as "behavioral determinants." Koegel, Camarata, Koegel, and Ben-Tall (2005) say that PRT is important for improving social speech and functional language skills because these are areas that are often seen as very important in the growth of children with ASD (Frolli et al., 2020).One of the reasons for the continued focus on the development of children with ASD and social communication is because of the potential to foster change and provide children with knowledge that will enhance their communicative behaviors throughout the lifespan (Hallahan and Kauffman, 2000). According to Paul (2004), the field of speech-language pathology is rich in theories and intervention methods targeting social communication and pragmatic language. To date, many intervention approaches remain to be systematically investigated and have limited empirical support. In general, there is a need to examine the effectiveness of available intervention approaches for children and adolescents with ASD and to further develop treatments that have been shown to facilitate significant and sustained improvement in social communication and pragmatic language (Cannon et al., 2021).

3. Material and methods:

3.1 Research methodology

The researcher used the descriptive survey method, which includes describing the phenomenon and collecting data directly from the research community or sample. With the intention of expressing it quantitatively and qualitatively, and diagnosing certain aspects without being limited to one, due to its suitability to the nature of the study. It is used to describe phenomena, collect information about specific conditions, understand their condition

as it is, and work to develop it. It is also possible through it to put the results in an expressive numerical form, and then interpret these numbers and explain what has been reached.

3.2 Research sample

Survey sample:Final sample: The researcher used a random sampling method and included (30) teachers of children with autism spectrum disorder in Iraq.Table (1) Distribution of the study sample after implementation according to: gender, age of the child being taught, and the extent of their knowledge of pragmatic language disorder for children with autism spectrum disorder, for each of them.

Nationality	Male	Female		Total
Repetition	16	14		30
The ratio %	53.33	46.66		100
Knowledge of the disorder	Yes	no		total
Repetition	20	10		30
The ratio %	66.66	33.33		100
Child's age	From 5-7 years	From 7-9 years	Total	Total
Repetition	9	12	30	30
The ratio %	27.42	40.32	100	100

Table (1) shows the distribution of the research sample after application according to gender. Males came in first place, then females. As for the distribution of the study sample after application according to their knowledge of pragmatic language disorder for children with autism spectrum disorder, yes came in first place, then no. As for the distribution of the research sample after application, according to the age of the child, children aged (7-9) years came in first place, followed by (9 and above), and in last place came children aged (5-7) years.

3.3 Research tool

For this research, the researcher used a questionnaire tool, the title of which was: “The level of pragmatic language for children with autism spectrum disorder from the point of view of their teachers in Iraq” (prepared by the researcher). It aims to know the level of pragmatic language for children with autism spectrum disorder from the point of view of their teachers. The tool was composed of (21) items in their final form, distributed over two dimensions: The first dimension: Manifestations of pragmatic language disorder in people with autism, and the number of its phrases is (14) phrases. The second dimension: The strategy for dealing with pragmatic language disorder in children with autism spectrum disorder, and the number of its phrases is (7) phrases. .

The research variables for the sample included: gender: male - female, age of the child, level of knowledge.

Steps to prepare the questionnaire:

1- Benefiting from the theoretical framework and reviewing previous studies related to both pragmatic language disorder and autism spectrum disorder.

2- Review a number of tools mentioned in previous studies, and benefit from them in preparing the questionnaire to suit the sample to which it is applied, in addition to formulating some new phrases.

3- Presenting the questionnaire in its initial form to a group of arbitrators and working with their notes and amendments in deleting and rephrasing some paragraphs.

3.4 Statistical methods

The Statistical Package for the Social Sciences (SPSS V.18) program was used. To analyze the data resulting from the research sample, the details of the statistical methods used are as follows:

1- Frequencies and percentages to know the characteristics of the research population and sample, and their distribution according to demographic variables.
2- Arithmetic means to identify the average response of the sample to each of the statements of the two main dimensions of the questionnaire, and to arrange the items according to the average in descending order.
3- Standard deviation to determine the extent to which the research sample’s responses deviate for each of the questionnaire’s phrases, according to the research variables, and for each of the two main dimensions, from its arithmetic mean and the measure of dispersion.
4- Pearson Correlation Coefficient, to calculate the correlation coefficients between the statements and the total score of the questionnaire.

5- Using the Cronbach-Alpha coefficient, as well as the reliability coefficient of Brown and Spearman, and the reliability coefficient of Guttman, to verify the stability of the research tool.
6- Independent T-Test for two independent samples to indicate the difference between the average scores of the teachers in the research sample in the questionnaire according to the gender variable.
7- Maan-Whitney U Test to indicate the difference between the average ranks of the teachers' grades in the research sample in the questionnaire according to the variable of their knowledge of pragmatic language disorder for children with autism spectrum disorder.
8- One-way analysis of variance (ANOVA-One Way) test to indicate the difference between the average responses of the teachers in the research sample in the questionnaire, according to the two variables (child's age).

4. Results

Results of the question 1 : What is the level of pragmatic language disorder in children with autism spectrum disorder from the point of view of their teachers?To answer this question, the researcher calculated frequencies, percentages, arithmetic means, standard deviations, and ranks for the results of the scores of the research sample members of male and female teachers of children with autism spectrum disorder in each of the phrases of the first dimension (manifestations of pragmatic language disorder); Table (2) highlights the results, ranked from most agreement to least, in addition to the average responses of the sample members as a whole on the dimension in general:Table (2) Arithmetic means and standard deviations for the dimension of manifestations of pragmatic language disorder (n= 30)

Rank	Number	Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Average	Standard Deviation	Weight	Degree of Approval
1	1	Lack of choosing the appropriate words while talking to others	9	14	8	5	0	4.35	0.70	87.00	High
2	10	Has difficulty actually using language during social situations	10	17	5	8	0	4.35	0.81	87.00	High
3	13	Has difficulty organizing thoughts when telling a story	9	12	7	0	1	4.32	0.81	86.40	High
4	8	Lacks understanding of meaningful looks	9	11	8	2	0	4.29	0.82	85.80	High

5	2	Has a small vocabulary	9	12	6	3	0	4.27	0.83	85.40	High
6	11	The social context of language is weak	8	13	7	0	1	4.26	0.79	85.20	High
7	3	Interacts with others infrequently	8	12	9	0	1	4.24	0.82	84.80	High
8	4	Has difficulty understanding meanings	7	15	5	2	0	4.24	0.74	84.80	High
9	9	Way of expressing the sequence of daily events is weak	8	8	8	1	1	4.21	0.85	84.20	High
10	12	Failure to establish a social relationship with others	9	6	10	4	0	4.19	0.94	83.80	High
11	5	Has difficulty understanding voice expressions	6	10	9	1	0	4.18	0.74	83.60	High
12	6	Finds it difficult to initiate conversation	6	9	9	2	0	4.15	0.79	83.00	High
13	14	Responds poorly to others	7	7	8	4	0	4.15	0.88	83.00	High
14	7	Has difficulty	6	8	11	2	0	4.11	0.82	82.20	High

		understanding tone of voice									
Dimension of Manifestations of Pragmatic Language Disorder								4.23	0.55	84.60	High

Table 2 illustrates the evaluation of the manifestations of pragmatic language disorder. The overall arithmetic mean for the first dimension, representing the level of pragmatic language disorder, was found to be 4.23 (standard deviation = 0.55). There was a high degree of agreement regarding this dimension. Among the individual statements, Statement (1) regarding a deficiency in choosing appropriate words while talking to others received the highest average agreement score, with a mean of 4.35 (standard deviation = 0.70), indicating a strong consensus. Conversely, Statement (7) pertaining to difficulty understanding tone of voice attained the lowest average agreement score, with a mean of 4.11 (standard deviation = 0.55), yet still demonstrated a high degree of agreement. Question 2: What are the strategies for dealing with pragmatic language disorder in children with autism spectrum disorder?To answer this question, the researcher calculated frequencies, percentages, arithmetic means, standard deviations, and ranks for the results of the research sample's scores of male and female teachers of children with autism spectrum disorder in each of the phrases of the second dimension (strategy for dealing with pragmatic language disorder for children with autism spectrum disorder); Table (3) highlights the results, ranked from most agreement to least, in addition to the average responses of the sample members as a whole on the dimension in general:Table (3): Arithmetic means and standard deviations for the dealing strategy dimension With pragmatic language disorder in children with autism spectrum disorder (n=٣٠)

Rank	**Number**	**Statement**	**Strongly Agree**	**Agree**	**Neutral**	**Disagree**	**Strongly Disagree**	**Average**	**Standard Deviation**	**Weight**	**Degree of Approval**
1	2	Training the child on facial expressions, conversation, and waiting for their turn to speak	10	16	7	11	0	4.44	0.67	88.80	High
2	4	Activating multicomponent behavioral interventions to address skills for children	10	16	7	10	1	4.39	0.80	87.80	High
3	5	Using video modeling strategy to improve	9	15	8	13	0	4.31	0.76	86.20	High

		social interaction in children									
4	3	Using role-playing strategy during conversation with the child	10	16	5	8	1	4.26	0.96	85.20	High
5	1	Using the discrete attempts strategy to develop pragmatic language for children with autism spectrum disorder	9	15	6	10	0	4.24	0.82	84.80	High
6	6	Employing an augmented reality strategy to develop pragmatic language for people with autism spectrum disorder	10	16	7	8	1	4.24	0.92	84.80	High
7	7	Using training programs to improve the social use of language	7	11	12	2	2	4.13	0.93	82.60	High
Dimension of Strategy for Dealing with Pragmatic Language Disorder for								4.29	0.64	85.80	High

Children with Autism Spectrum Disorder											

Table 3 presents the evaluation of strategies for dealing with pragmatic language disorder in children with autism spectrum disorder. The overall arithmetic mean for the second dimension, representing the effectiveness of these strategies, was found to be 4.29 (standard deviation = 0.64). There was a high degree of approval regarding this dimension. Among the individual statements, Statement (2) regarding training the child in facial expressions, conversation, and turn-taking achieved the highest average agreement score, with a mean of 4.44 (standard deviation = 0.67), indicating a strong consensus. Conversely, Statement (7) pertaining to using training programs to improve the social use of language obtained the lowest average agreement score, with a mean of 4.13 (standard deviation = 0.93), yet still demonstrated a high degree of agreement.Question 3: Are there statistically significant differences between the responses of teachers of children with autism spectrum disorder regarding pragmatic language disorder attributed to the variable of knowledge of pragmatic language disorder for children with autism spectrum disorder (yes/no)?To answer this question, the Mann-Whitney Test was calculated to indicate the difference between the average ranks of the responses of teachers of children with autism spectrum disorder regarding pragmatic language disorder according to the variable of knowledge of pragmatic language disorder for children with autism spectrum disorder (yes/no); The results appeared as shown in Table (4):Table (4): Results of the Mann-Whitney Test to indicate the difference between the mean ranks of the responses of teachers of children with autism spectrum disorder regarding pragmatic language disorder according to the variable of knowledge of pragmatic language disorder for children with autism spectrum disorder (yes/no)

Dimension	**Knowledge**	**Number**	**Average Ranks**	**Sum of Ranks**	**Value (U) (t)**	**Value (Z)**	**Level of Significance**
Manifestations of Pragmatic Language Disorder	Yes	30	19.47	584.00	193.500	3.532	0.01
	No	30	10.53	315.00			
Strategy for Dealing with Pragmatic Language Disorder in Children with Autism Spectrum Disorder	Yes	30	20.71	621.50	254.500	2.636	0.01
	No	30	5.29	158.50			
The Questionnaire as a Whole	Yes	30	19.40	582.00	187.000	3.629	0.01
Distance	Knowledge	30	19.47	584.00			

The results from Table 4 indicate a statistically significant difference at the $\alpha \leq 0.05$ level between the average ranks of teachers' responses regarding pragmatic language disorder in children with autism spectrum disorder based on their knowledge of pragmatic language disorder. This difference is observed in the total score of the questionnaire, as well as in each of the two dimensions of the questionnaire. In all cases, the responses from teachers with knowledge of pragmatic language disorder for children with autism spectrum disorder (yes) had significantly higher average ranks compared to the responses from teachers without knowledge (no).Question 4: Are there statistically significant differences between the responses of teachers of children with autism spectrum disorder in pragmatic language disorder due to the variable of the child's age?To answer this question, a one-way analysis of variance (ANOVA) test was calculated to indicate the difference between the average responses of teachers of children with autism spectrum disorder in pragmatic language disorder according to the child's age variable. The results appeared)Note: The child's age was divided into: 1 = 5-7 years, 2 = 7-9 years, 3 = 9 and above).Table (5) shows the results of the (F) test for the average responses of teachers of

children with autism spectrum disorder in pragmatic language disorder according to the child's age variable in the questionnaire as a whole and in each of its two dimensions. It is noted that the value of (F) ranged between (0.651 - 0.706). It indicates that there are no statistically significant differences at the significance level ($0.05 \geq \alpha$) between the average responses of teachers of children with autism spectrum disorder in pragmatic language disorder according to the variable of the child's age.Table (5): Results of the one-way analysis of variance (ANOVA-One Way) test indicating the difference between the average responses of teachers of children with autism spectrum disorder in pragmatic language disorder according to the variable of the child's age.

The dimension	Descriptive statistics				Statement	Sum of squares	degrees of freedom	mean of squares	p value	significance level
	the age	1	2	3						
Manifestations of pragmatic language disorder	the number	17	25	20	Between groups	47.39	2	23.70	0.385	0.682 None
	Average	58.41	58.84	60.50	Within groups	3634.48	59	61.60		0.706 None
	standard deviation	7.67	9.41	5.46	the total	3681.87	61			
A strategy for dealing with pragmatic language disorder in children with autism spectrum disorder.	the number	17	25	20	Between groups	14.269	2	7.13	0.351	0.682 None
	Average	29.94	29.52	30.65	Within groups	1199.73	59	20.33		0.706 None
	standard deviation	4.12	4.14	5.12	the total	1214.00	61			
The questionnaire as a whole	the number	17	25	20	Between groups	105.68	2	52.84	0.432	0.682 None
	Average	88.35	88.36	91.15	Within groups	7208.19	59	122.17		
	standard deviation	11.16	12.15	9.39	the total	7313.87	61			

(Note: The child's age was divided into: 1 = 5-7 years, 2 = 7-9 years, 3 = 9 and above).

5. DiscussionDiscussing the results of the main question:

The results of the research revealed that the level of pragmatic language disorder from the point of view of their teachers was (mean = 4.23, standard deviation = 0.55), and there was agreement with it to a large degree. The researcher attributes the previous result to the fact that language disorders are considered a prominent and prevalent feature among people with autism spectrum disorders. Aare's study, 2020), and in this context, the study of Ratto, Brown, Rupp, Mesibov & Penn, 2011 indicated) Therefore, many programs work on the language side in a greater and more in-depth manner.Discussing the results of the first question:The results of the research revealed that the strategy for dealing with pragmatic language disorder was (mean = 4.29, standard deviation = 0.64); There was a large degree of approval for it, and the researcher attributes the previous result to the positive development taking place at the academic, educational, and research levels on autism spectrum disorder, which was reflected positively in the improvement and development of the strategies, and the definition of those interested in them. Which contributed to raising the level of effectiveness in specialized programs.Discussing the results of the second question:The research indicated that there are no statistically significant differences at the level ($\alpha \leq 0.05$) between the average responses of teachers of children with autism spectrum disorder in pragmatic language disorder according to the gender variable (male/female), in the total score of the questionnaire, as well as in each of the two dimensions of the questionnaire. The researchers attribute this result to a reflection of the

programs and strategies designed to target children with autism spectrum disorder in their linguistic aspects in general, and often do not include gender among their variables in any fundamental way - according to the researcher's knowledge.Discussing the results of the third question:The research indicated that there is a statistically significant difference at the level ($\alpha \leq 0.05$) between the average ranks of the responses of teachers of children with autism spectrum disorder in pragmatic language disorder according to the variable of knowledge of pragmatic language disorder in children with autism spectrum disorder (yes / no), in the total score of the questionnaire. And also, in each of the two dimensions of the questionnaire, in favor of responding with (yes), that is, the average scores of teachers who have knowledge of pragmatic language disorder for children with autism spectrum disorder were statistically significantly higher than the average scores of teachers who do not have knowledge, and the researchers attribute this result to their efforts. Educational institutions make efforts to develop work with people with autism spectrum disorder; The researcher expects this result; As a result of the development targeting teachers of children with autism spectrum disorder and the courses that contributed to this, responses have become high regarding their knowledge of pragmatic language disorder, and this is what the researcher senses through her experience and specialization, and through the scientific content published by social media and websites, the creation of a state of individual and societal awareness. With a language disorder.Discussing the results of the fourth question:The research indicated that there are no statistically significant differences at the significance level ($0.05 \geq \alpha$) between the average responses of teachers of children with autism spectrum disorder in pragmatic language disorder according to the variable of the child's age. The researcher attributes the expectation of this result according to the research sample, as they are students from A similar educational level, and they receive their educational opportunities in educational programs that form a similar environmental pattern, and this is reflected in the point of view of their teachers, as they work in the same programs and receive the same training. This was reflected in the responses, resulting in no statistically significant differences according to the age variable.

References

Cannon, J., O'Brien, A. M., Bungert, L., & Sinha, P. (2021). Prediction in autism spectrum disorder: a systematic review of empirical evidence. Autism Research. nih.gov Cazalis, F., Reyes, E., Leduc, S., & Gourion, D. (2022). Evidence that nine autistic women out of ten have been victims of sexual violence. Frontiers in behavioral neuroscience, 16, 852203. frontiersin.org Chodura, S., Lohaus, A., Symanzik, T., Heinrichs, N., & Konrad, K. (2021). Foster parents' parenting and the social-emotional development and adaptive functioning of children in foster care: A PRISMA-guided literature review and meta-analysis. Clinical child and family psychology review, 24, 326-347. springer.com Ferrara, R., Nappo, R., Ansermet, F., Ricci, P., Massoni, F., Carbone, G., ... & Ricci, S. (2021). The impact of dsm-5 on the diagnosis of autism spectrum disorder. Psychiatric Annals, 51(1), 38-46. researchgate.net Frolli, A., Ricci, M. C., Bosco, A., Lombardi, A., Cavallaro, A., Operto, F. F., & Rega, A. (2020). Video modeling and social skills learning in ASD-HF. Children, 7(12), 279. mdpi.com Howlin P, Goode S, Hutton J, Rutter M. Adult outcome for children with autism. J Child Psychol Psychiatry. 2004 Feb;45(2):212-29. doi: 10.1111/j.1469-7610.2004.00215.x. PMID: 14982237.Hyman, S. L., Levy, S. E., Myers, S. M., Kuo, D. Z., Apkon, S., Davidson, L. F., ... & Bridgemohan, C. (2020). Identification, evaluation, and management of children with autism spectrum disorder. Pediatrics, 145(1). [HTML] Kasari C, Sigman M, Mundy P, Yirmiya N. Affective sharing in the context of joint attention interactions of normal, autistic, and mentally retarded children. Journal of Autism and Developmental Disorders. 1990;20(1):87–100. doi: 10.1007/BF02206859. [PubMed] [CrossRef] [Google Scholar]Koegel, Lynn & Koegel, Robert & Shoshan, Yifat & McNerney, Erin. (1999). Pivotal Response Intervention II: Preliminary Long-Term Outcome Data. The Journal of The Association for Persons With Severe Handicaps. 24. 186-198. 10.2511/rpsd.24.3.186.Norbury, Courtenay & Gemmell, Tracey & Paul, Rhea. (2013). Pragmatics abilities in narrative production: A cross-disorder comparison. Journal of child language. 41. 1-26. 10.1017/S030500091300007X.Rosello, B., Berenguer, C., Baixauli, I., García, R., & Miranda, A. (2020). Theory of mind profiles in children with autism spectrum disorder: Adaptive/social skills and pragmatic competence. Frontiers in psychology, 11, 567401. frontiersin.orgSaban-Bezalel, Ronit & Ben-Itzchak, Esther & Zachor, Ditza. (2024). Friendship in Autism Spectrum Disorder Is Related to Diverse Developmental Changes Between Toddlerhood and Adolescence. Journal of Autism and Developmental Disorders. 1-12. 10.1007/s10803-024-06284-8.Volden, Joanne & Coolican, Jamesie & Garon, Nancy & White, Julie & Bryson, Susan. (2008). Brief Report: Pragmatic Language in Autism Spectrum Disorder: Relationships to Measures of Ability and Disability. Journal of autism and developmental disorders. 39. 388-93. 10.1007/s10803-008-0618-y.Yolden,J.& (1993).pragmatic language dysfuncion in autism: Referential coounication and perspectivw- taking in autistic speakers (master dissertation).University of Alberta.