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## Chapter

# Unlocking Potential: Exploring the Impact of Selective Attention Training on Enhancing Communication in Children with Autism

*Nermeen A. Qutub and Budor H. Saigh*

## Abstract

This study investigates the concept of selective attention and its significance in fostering desired behavioral changes, both verbal and nonverbal, in autistic children. The research involved implementing a specialized behavioral program as part of the daily routine for a group of male children aged 3–6 years. The program was conducted over a period of 35 days, with one-hour sessions each day. For the outcome assessment, several tools were utilized, including diagnostic criteria for autism, a social adaptation scale tailored to the Jordanian environment, and the Schiller Behavior Assessment Scale. The CARS, adapted for the Saudi environment, was also employed. Prior to implementation, no statistically significant differences were observed in the average scores for verbal and nonverbal communication, responses to selective attention (specifically involving objects), and the development in interpersonal communication. However, after the implementation, significant differences were found in these areas. In addition to the aforementioned results, the study recommendations emphasized the importance of employing visual communication strategies and organized environments in autism programs. Furthermore, the inclusion of autistic children in training programs to enhance fundamental learning skills, image concept training with non-distracting backgrounds, and the establishment of support rooms within autism care centers to address communication weaknesses were also highlighted.

**Keywords:** attentional processing, quasi-experimental, cognitive training, communication skills, behavior modification

## 1. Introduction

Autism There are many names for autism, including autism and rumination. Al-Karmi ([1]: 92) translated the term into Introversion, preoccupation with oneself, preoccupation with my desires and dreams today. As Baalbaki ([2]: 75) translated it into monotheism, meaning that he pushed too far in the imagination to escape

reality Hala Muhammad ([3]: 20) commented that from a linguistic point of view, the term autism is the best term used to express the phenomenon in the field of research Al-Fawzan ([4]: 43) explains that the term autism came from the Greek language, so in Greek Aut means soul, and ism in Greek means anomaly, and therefore the child with this condition is the person. The person who carries the abnormal soul. Leokanner first coined the term in 1943 AD when he distinguished a group of behavioral symptoms that appear in early childhood Samira al-Saadi ([5]: 11) suggests that the reason why Liucaner chose this name is due to the fact that the first salient feature is the weakness in the formation of normal social relations, which is the most prominent characteristic of these children, in addition to being a word that is not used much in the English language during conversation, It is for this reason that it is a single word in its meaning and use Several terms have been used to refer to this disorder, including, Develop sarcastic ego, Kanner syndrome, atypical kid, Abnormal growth – a ridiculous development, Abdullah ([6]: 12) reviews some of the terms that have been used to refer to autism, namely: childhood psychosis, childhood psychosis- Childhood schizophrenia He adds that since the time the American Psychiatric Association described the Clinical Diagnostic Panel for the disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM-3: R & DSM-3) in the years (1978, 1980) respectively, considering it a developmental process disturbance (Developmental disorder) The disorder is no longer seen as psychosis, and the symptoms of autism and psychosis are no longer seen as synonymous, hence terms such as childhood unite.

Autism or infantile autism, child with autism closer to the term early infantile autism adopted by Liuchaner. Hody [7] pointed out that at a later time, the use of such terms declined, because a child with autism would progress in the advanced stages of life without fully recovering from the symptoms characteristic of autism, making it inappropriate to release it. These conditions apply to individuals who have passed childhood.

According to the Diagnostic and Statistical Manual of Mental Disorders 4 (DSM-4) in 1994, it was called an autistic disorder, Qaryouti and others ([8]: 301) shows that these different nomenclatures reflect the historical development of autism and the different interests and specializations of professionals involved with the disorder. In addition, the use of a number of nomenclature has been due to the ambiguity and complexity of the differential diagnosis of autism The development of the concept of autistic disorder. Kanner in [9] recorded his observations about the behavior of a 5-year-old child, and in (1943) he presented his classic paper entitled (Autistic disturbances affective contact), Happe ([10]:7).

Malika ([11]: 259) mentions that Kaner considered the prominent sign in this fellowship to be the individual's inability to relate to people and situations in the normal way since the beginning of his life.. Since that time, many researchers have dealt with this disorder in an attempt to clarify the concept of autism Al-Khatib, Al-Hadidi ([12]: 156) mentions that at that time, autism was seen as a condition that affects children who come from educated families belonging to the socio-economic category of a good level The use of the term autism, which was used by Buller to describe one of the primary features of schizophrenia, and a preoccupation with oneself more than a preoccupation with the external environment caused confusion from the beginning in the concept of autism.

Malika ([11]: 260) mentions that Kanerkan believes that autism is a different kind of schizophrenia, but decided in (1949) that it is the most early manifestation of

schizophrenia, and then returned to his first position after collecting many data indicating that autism and schizophrenia are two completely different conditions. Ritvo and Freeman [13] suggested that autism is a disorder or syndrome that is defined by behavior, and that the main symptoms must appear before the child reaches the age of (30) months and include a disturbance in the speed or sequence of growth, disturbance in sensory responses to stimuli, disorder of speech, language and cognitive capacity and disturbance in attachment or belonging to people, events and subjects, ([14]: 18).

This definition was adopted by the National Society for Autistic Children: NSAC, and it is considered the most acceptable among professionals. It was adopted by Al-Qayruti and others ([8]: 312) and Al-Shammari and Al-Sartawi ([15]: 5).

Fabrnov and Chia also presented a definition of autism as not having the ability to understand ([16]: 69) knew that autism is a term that refers to being closed in on oneself, immersed in thinking, weak ability to pay attention, weak ability to communicate and establish social relationships with others, as well as excessive motor activity.

Autism is defined in the tenth revision of the International Classification of Mental and Behavioral Diseases (The ICD-10 Classification Mental and Behavioral Disorders) in [17]. Abnormalities in three areas are social interaction, communication, and repetitive restricted behavior (p. 266).

According to the American Autism Society, it is defined as a developmental disability that always appears in the first three years of life, as a result of neurological disorders that affect brain functions, interfere with normal development and affect mental activities in areas of thinking, social interaction, and communication. The British Association also defines autism as a deficit that hinders the development of social skills, verbal and nonverbal communication, and creative and imaginative play [18].

Hamdan ([19]: 7) defines autism as a disorder in brain functions that males suffer four times more than females. As it is not restricted to an age group or type of people, it may appear in all ages, races and classes. It is also clear that it is a dysfunction of the nervous system whose causes have not been conclusively determined by science until now, and that it is not slow or delayed in growth, but rather an anomaly and a deviation from the normal stages of growth.

## **2. The need of this study**

The need for this study arises from the importance of further understanding the impact of selective attention training on enhancing communication in children with autism. Recent research has shown promising results in the use of selective attention training interventions for improving communication skills in children with autism [20, 21].

One area of interest is the use of visual communication strategies in autism programs. Studies have demonstrated that incorporating visual supports, such as visual schedules and visual aids, can enhance communication and comprehension in children with autism [22, 23]. By investigating the impact of selective attention training on the utilization of visual communication strategies, this study can contribute to the development of more effective and tailored interventions.

Furthermore, there is a growing recognition of the importance of environmental factors in autism programs. Organizing the environment to minimize distractions and

create a structured and predictable setting has been shown to improve communication and attention in children with autism [24, 25]. Incorporating the evaluation of environmental modifications as part of the selective attention training program can provide valuable insights into the holistic approach to enhancing communication skills.

In addition, the inclusion of children with autism in training programs to enhance fundamental learning skills has gained attention in recent years [26, 27]. By examining the effects of selective attention training on not only communication skills but also broader learning abilities, this study can contribute to a more comprehensive understanding of the potential benefits of such interventions.

This study aims to address the gaps in the current literature and provide valuable insights into the impact of selective attention training on communication enhancement in children with autism.

Evidence-based practices for children, youth, and young adults with autism: A comprehensive review. *Journal of Autism and Developmental Disorders*, 50(12), 4385–4412. Foreign Studies. The first stage (descriptive studies stage, these studies dealt with the period between the mid to late fifties of the previous century. It aimed to clarify the behavior of autistic children, and the impact of this disorder on behavior in general, Notable efforts in this field were contributed by Leo Kanner [28], Hans Asperger [29], Leon Eisenberg [30]. The submitted reports showed many characteristics of autistic people, but the heterogeneity between the members of the groups described in the reports led to few conclusions that can be taken into consideration in the long term, The second stage (the stage of studies dependent on the first studies). These studies covered the period from the late 1950s to the late 1970s. It aimed to focus on potential developments in the abilities and skills of children with autism as a result of the training.

Among the most prominent studies of this stage is the study of Michael Rutter [31], Mittler et al. [32], DeMeyer et al. [33], Victor Lotter [34]. The studies presented in this stage were more accurate than the previous stage, and accordingly the following conclusions can be drawn as early development at the age of five is one of the important indicators for identifying cases of autism. Mental abilities, ability to learn and training are seen as important indicators in diagnosing autism. The third stage (the stage of follow-up studies) These studies dealt with the period between the eighties and the beginning of the nineties. This stage witnessed a steady stream of many consecutive reports in the field of autism, but they mostly focused on high-functioning people with autism. For example, Kobayashi et al. [35], Rumsey et.al. [36], participated in this stage. Venter et al. [37], Tantam [38]. The information contained in the reports of these studies was more organized and objective than the previous studies, and accordingly it reached important results, which are The importance of language development for autistic children, especially in the age group (5–6) years, and its relationship to the development of some skills and abilities in the later stages. The mere fact that autistic children have some good cognitive and linguistic skills and abilities does not necessarily guarantee that training will develop in areas that guarantee their integration into society. The organized therapeutic exercises and special education programs ensure the gradual change of some of the disordered and inappropriate behaviors. The researcher adds the fourth stage (the stage of codified studies). This stage overlaps in its beginning with the end of the previous stage and extends to the current period. The studies presented in this period have increased significantly in addition to their accuracy and regularity, due to there is an agreed upon diagnostic standard for autism, which is specified in (ICD-10 & DSM-4). The

development of codified scientific research mechanisms, including standards and tests for the autism category. Technological development in medical devices and support hypotheses with physical evidence.

Most of the studies at this stage aimed at explaining the causes of autism, revealing early diagnosis methods for this disorder, and developing a medical treatment that supports behavioral training programs, in the hope of reaching a radical solution to autism, either by early detection to prevent the development of symptoms or by knowing the causes to stop and prevent disturbance occurs. The researcher will address some of these researches while presenting the theoretical framework.

## **2.1 Second: Arabic studies**

Children with autism disorder was documented in Arab studies probably about fifteen years ago, and they dealt with three areas of autism disorder. This study aimed to clarify the prominent diagnostic indicators of autism disorder through their performance on some psychological scales, including Khalil [39], Halawani [40], Ahmed [41], Al Balsha [42] and Al Matar [43]. Parental views of children with autism. These studies aimed to know the views of parents of children with autism towards various topics, including their fears, their children's training and educational needs, the family's awareness of the nature of services provided to their autistic child, and parental attitudes towards the autistic child, which are respectively. Al-Saadi [44], Al-Sheikh [45], and Fran [46]. The programs offered to the child with autism. The studies aimed to design and implement special programs for the child with autism to alleviate the symptoms of autism disorder and develop aspects of language and social communication for them. Among them are Badr [47], Muhammad [3], and Nasr [48]. From the previous studies, the development in dealing with autism disorder in Arab studies was of a logical gradation to identify a relatively new phenomenon in the Arab community.

The development of diagnosis and measurement of autism disorder was inability to build relationships, delay in language acquisition, use of spoken language in a non-communicative manner after its development, abnormal verbal repetition of opposite pronouns, stereotypical repetitive play, discomfort with change, good memorial memory, normal physical appearance. Symptoms of stunted growth appear before the age of three. A qualitative deficiency in the ability to exchange social interaction and a clear qualitative deficit in the ability to communicate. Limited activities and interests that are monotonous, stereotyped, and repetitive. That the reason behind the behavioral features from the clinical point of view is not due to other developmental disabilities.

In addition to the previous criteria, the ICD-10 system referred to non-specific diagnostic criteria that sometimes appear, such as problems with eating, sleeping, and mood (1999: 266–267). However, the latest standard for diagnosing autism appeared in the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders issued by the American Psychiatric Association (DSM-4) in (1994), and this manual was revised in (2000) and became (DSM-4:TR) and included a description of Symptoms of the disorder as a total of six (or more) items from (1), (2), (3)... at least two proposals from item (1) and at least two proposals from both items (2), (3), namely:

1. A qualitative weakness in social interaction, as shown in two of the following points:

- a. Weakness in non-verbal communication (such as staring at the eye, facial expressions, body postures and gestures that regulate social interaction).
  - b. Failure to develop relationships with others in proportion to the level of growth.
  - c. A lack of an innate search to share pleasure, interests or achievement with other people (eg (a lack of showing, bringing, or even referring to topics of interest).
  - d. a lack of social and emotional exchange.
5. A qualitative weakness in communication as shown in at least one of the following points:
- a. Delayed and total deficiency in the development of the speech and language process (not accompanied by an attempt to compensate by other methods of social communication such as gesture or imitation).
  - b. People who speak appropriately, evidence of weakness in the ability to initiate or participate in conversation with others.
  - c. the stereotyped repetition of an abnormal language or special language.
  - d. The inability to play in a different and spontaneous way, or to imitate social games that suit the level of development.

The selective attention translation of the term, and its synonyms, The term overlaps with the current study in the current study period, Baalbaki ([2]: 829) and Al-Karmi ([1]: 33) translated the term selective, selective, or elective, Baalbaki ([2]: 73) translated the term attention, while Al-Karmi ([1]: 1233) included a translation of the term selective attention, "attention" in a singular sense, defined by directing attention to one thing without any other group of things, And as an analysis, good, the photograph, The contract for this term has discussed some of the literature and written research on autism, this characteristic under names synonymous with the term from excessive selectivity which excessive response to stimuli.

Secondly, Hafez ([49]: 39) defines attention by including the individual to limit and focus his senses in an internal stimulus (idea, feeling, imaginary image) or in an external stimulus (a personal thing, a situation) Ghaith (DT: 30) defines attention as focusing the state of alertness (awareness) towards a specific one. It is a positive selection indicator or more from the inside And defines attention as a law of selective cognitive mental preparation towards the subject of attention ([50]: 221) It defines attention, unification and selection, ([51]: 207). And for a while to pay attention to the research bookmark. Berlin defines ([52]: 75) It is clear from the previous definitions that the selection process is specific or multiple, Attention types. Al-Sartawi, et al. ([53]: 319) explains relationship, focus on the relationship between them. Sensory selection within the limits in the picture. Sensory selection which refers to the ability to multiply attention on two or more stimuli that are received through different sensory channels at a time.

Thirdly, Limitations of Attention and the section of Melhem [51] determinants of attention to.

external determinants that objective characteristics of the stimulus and the surrounding circumstances in it, and the strong stimuli with the changing movement and the changing, changing and different from what is in the surroundings of the individual directly proportional to the stimulation of attention, and the size, position and nature of the stimulus (audio, visual, sensory), times Repetition of appearances in the degree of attention. Internal determinants that general atmosphere that shares the same things that pertain to the individual and his motives, whenever the stimuli related to these internal factors prepare the individual to select them and pay attention to them without other stimuli, especially if they are found in conditions suitable physically and psychologically for the individual. Cognitive mental determinants is an educational pattern based on the pattern of thinking and effectiveness. It can move to the highest level in reading and thinking, and the stimuli that are the.

Communication is a vital process for all living beings, and His power, the Almighty, willed to make each type of these creatures a way to communicate. Communication appears in the finest and most complex form when it is monitored for humans. His wisdom, the Most High, required the diversity and plurality of peoples and tribes to reach this result, which is considered a means to reap many benefits. The Most High said: "And We have made you peoples and tribes so that you may know one another" (Al-Hujurat, verse 13). First: Concept and Definition The literal translation of the word Communication refers to several meanings that include continuity, conduction, conductive road, communication ([1]: 246). Amal Baza ([54]: 8) defines communication as the process through which experience, information, ideas and feelings are transferred to others within a specific social system determined by social relations between individuals according to the specific social roles of individuals. Al-Qaryouti and others ([8]: 325) believe that communication in its general sense is that activity that includes sending and receiving what living organisms want from each other. It is the means by which needs and desires are expressed and information is communicated to bring benefits and prevent dangers. As for communication in the specific sense, it means the use of speech as linguistic symbols to express needs, thoughts and feelings between people. Amal Jalal ([55]: 258) believes that the communication process is primarily a social process, as it is the process by which an individual communicates with others, cooperates with them for mutual benefit, or enters into conflict and incompatibility with them.

Al-Kafafi and others ([56]: 60) see communication as a two-way process, as messages flow in both directions and result in joint actions with common responses. Cook and Golding ([57]: 43) point out that the ability to communicate refers to the desire and ability to verbally exchange ideas, feelings and principles with others. Ghanem ([58]: 75) also refers to the relationship between communicativeness and language, since language is a means of transmitting ideas between individuals and groups, and the communicative level includes three levels reflex level such as a cry of pain or a look of disgust, objective level such as gestures and sounds and language, which is limited to humans and includes the previous levels. Suleiman [59] adds that language is a tool for expressing meaning, but it is not limited to verbal communication only, but rather includes other methods such as pointing, gestures and movements. It becomes clear here the importance of spoken language in human communication as a distinct element, but human communication models are not limited to them, but extend to other non-verbal methods by which a person can express what he wants to communicate to others.



### **3. Methodology**

The current study relied on the quasi-experimental approach as an experimental study aimed at applying a behavioral program based on training and behavioral practice to activate the pattern of selective attention in a sample of children with autism to develop verbal and nonverbal communication responses to them. The study also relies on the quasi-experimental design with two groups. As the researcher in the quasi-experimental method does not adhere to the limits of reality, but tries to reshape it by introducing changes to it and measuring the impact of these changes and the results they bring about. Due to the small number of centers that provide specialized services for this category, the study population represents all autistic children applying to join the Jeddah Autism Center for Girls affiliated to the Ministry of Education, and children with autism applying to the desired Hope Center in Makkah who meet the initial conditions for admission to the center. The study sample consisted of (8) male children between the ages of (3–6) years diagnosed with autism of moderate severity according to the list of clinical symptoms of autism disorder, and no systematic training procedure had been applied to them before, and they were homogenized in each of the dimensions of adaptive behavior and case level. Mentality, level of autistic symptoms, and verbal and nonverbal communication styles. In the current study, the researcher applied the following tools: a list of clinical symptoms of autism spectrum disorder according to Izza Al-Ghamdi, [60], social Adaptation Scale (all-risk: 1998), the Schipler Scale for assessing the behavior of the autistic child [61], the observation form prepared by the researcher and behavioral program prepared by the researcher. Psychometric properties, clinical symptoms of autism disorder (Arabization and preparation, Azza Al-Ghamdi, [51]).

The researcher used to determine the level of disorder among the children in the study sample. This fifteen-item list is from the Diagnostic and Statistical Manual of Mental Disorders - Revised Version (DSM-4-TR: 2000) and is designed on a quadrilateral scale (never applicable = small, applies little = 1, applies a lot = 2, always = 3) The high score in the list items reflects the severity of the child's autism disorder, which hinders his performance inside the home and school and hinders his relationship with others. The list provided high standards of validity and reliability. The validity of the list was verified through logical honesty. The list was presented to (8 arbitrators), and the percentages of arbitrators' agreement ranged between (88% and 100%), and thus all the items of the list were saved as mentioned in (DSM-4). TR: 2000) and in order to find out the internal consistency, the list was applied to a sample of (60) children with autism and mentally retarded children enrolled in the Institute of Intellectual Education, statistically at the level of (0.01), and for the validity of the discriminatory, the list was applied to a sample of normal children (n = 48). And a sample of children with autism (n = 37), and the significance of the differences between the scores of the members of the two groups was reached through the t-test ( $t = 12.36$ ), which is statistically significant at the level of significance (0.01), which indicates that the list has a high discriminatory ability. As for the stability of the list, it was calculated through re-submission, and the list was applied to a sample of children with autism, which numbered (32) children, and the test was re-applied at an interval of three weeks, and the correlation coefficient between the two estimates was (0.842), which is a high coefficient in the half of the segmentation where the Calculating the correlation coefficient between the odd and even statements in the list and its value was (0.482), and after correcting the length using the Spearman and Brown equation,

the reliability coefficient became for the list as a whole (0.914), which is a high value that indicates the stability of the scale, Appendix (7) and the scale of social adaptation [62].

The researcher used this scale in the current study as a result of several considerations by modifying and approaching aspects of the variables in the selected sample. The largest number of information related to the capabilities of the sample in various aspects in a record period of time and the difficulty of applying performance intelligence tests with children with autism in early childhood who did not undergo any of the educational exercises organized before, the results of these tests are limited to one aspect, and the researcher needs to know detailed information about each case, which is provided by the sub-items of each main item in the scale, to employ these skills through the proposed program, and to define this scale this scale was prepared in its original form by (Nihira et al.) at the instigation of the American Association for Mental Retardation as a result of criticisms of traditional measures of intelligence in measuring and diagnosing mental disabilities, and there are many indications of structural validity, global validity, predictive validity and associated validity. The scale in its original form, and the scale was standardized in its modified form in (1975, 1981) on a sample of (2600) children with disabilities and ordinary children in the age groups (7–13 years) in the American community. It has access to relative tables and graphic pages. Children's performance at the levels of psychological state (normal, mild disability, severe disability) [62].

#### **4. Results**

There are no statistically significant differences in the average scores of autistic children in the group (experimental control) on the verbal communication dimension in the scale of assessment of infantile autism after applying the behavioral program to activate selective attention in favor of the experimental group. Beside there are no statistically significant differences in the average scores of autistic children in the group (experimental control) on the non-verbal communication dimension in the scale for assessing infantile autism after applying the behavioral program to activate selective attention in favor of the experimental group. The study shows there are no statistically significant differences in the average scores of autistic children in the group (experimental control) on the specific dimension of selective additive responses (after sustaining objects) in measures of assessment of infantile autism after applying the behavioral program to activate selective attention in favor of the experimental group.

Also, There are no statistically significant differences in the average scores of autistic children in the group (experimental control) on the dimension of the relationship with people in measures of estimating infantile autism after applying the galactic program to activate selective attention in favor of the experimental group. Finally, There are no statistically significant differences in the average scores of autistic children in the group (experimental control) on the dimensions (imitation and simulation, emotional response, use of the body, adaptation to change, visual response, listening response, response and use of taste, smell and touch, fear and anxiety nervousness, Activity level, level and stability of mental response, impressions) in the Childhood Autism Rating Scale after applying the behavioral program to activate selective attention for the benefit of the experimental group.

## **5. Discussion**

**The Meaning of Selective Attention:** In the discussion section, it is important to provide a detailed explanation of the concept of selective attention. Selective attention refers to the ability to focus on specific information or stimuli while filtering out irrelevant or distracting stimuli. It plays a crucial role in cognitive processes, including perception, learning, and communication [20]. By training selective attention in children with autism, it is possible to enhance their ability to attend to relevant information, which can have a positive impact on their communication skills. **Acquiring Basic Skills:** Based on the results of the study and practical experience in the field, it is recommended to prioritize the acquisition of basic skills in training programs for children with autism. This can be achieved through a gradual and systematic approach that focuses on skill development in areas such as communication, self-control, and social interaction [63]. By providing structured and tailored interventions that target these core skills, it is possible to facilitate meaningful improvements in the overall functioning of children with autism.

**Integration into Appropriate Group:** In addition to skill acquisition, it is crucial to consider the integration of children with autism into appropriate social groups. This can be achieved by creating supportive environments within autism care centers that cater to the specific needs of these individuals. By establishing support rooms or designated spaces, children with autism can receive the necessary support and guidance to improve their communication skills in a comfortable and accommodating setting [23]. **Visual Communication Strategies:** Visual communication strategies have proven to be effective in enhancing communication and comprehension in children with autism. Interventions that incorporate visual supports, such as visual schedules and aids, can facilitate understanding and promote communication skills [22]. Therefore, it is recommended to utilize visual communication strategies as an integral part of autism programs, as they can significantly contribute to the overall success of interventions.

**Training Positions and Alternative Communication Methods:** To further support the development of communication skills, it is essential to hire and create training positions dedicated to this goal. These positions can be filled by professionals with expertise in autism and communication disorders, who can provide specialized guidance and training to children with autism. Additionally, alternative communication methods, such as the use of augmentative and alternative communication (AAC) systems, should be explored to enhance communication abilities in children who may have difficulties with verbal communication [20]. By incorporating these recommendations into autism programs, it is possible to optimize the effectiveness of interventions and promote positive outcomes in the communication abilities of children with autism.

In Light of the results of the study, and based on the researcher's practical experience in this field ... raises the level of acquiring basic skills for training, gradual gradation, communication, self-control (not gradual), and then gradual integrating it into an appropriate group and finding a support room within the centers that provide A rehabilitation service for the autism category, in order to support the educational, communicative and non-verbal aspects of the autism category and work on developing communication skills (verbal and non-verbal) as a primary element in the program provided for the autism category, which is done by hiring and creating training positions for this goal in addition to alternative and new mail, and communication

and use the image. Starting with the preferred elements and inserting the word after realizing the concept of the image in the autism category and training in pronunciation through the verbal memorization of the word. A singular synonym with every performance activity and the repetition of using the word in the first person during verbal indoctrination such as (playing, eating ..) contributes to the emergence of functional language and activation of a dedicated time through the computer (personal computer) and activation of television viewing times through the media and comment on the course of work and its adoption. The (negative) saturation of the method of using communication strategies in the educational environment and experimenting with time for music activities (the hips, piano, drums) because it strengthens the auditory-motor synergy, as the activities focus on strengthening the visual-motor synergy. The second phase of the program has begun with the pre-prepared children.

And the scales used with the autism category, the clinical criteria extracted from the DSM-4R (the Arabized image) to estimate the severity of autism disorder in the case and to deal with caution with the results of the mental state extracted from the adaptive behavior scale, so that they are not taken as an indication of the child's mental state with autism and the final result of the CARS scale agrees. With the clinical criteria DSM-4R (the Arabized image), the appropriateness of each of them is proven in the assessment and diagnosis of autism disorder. The researcher also recommends the importance of using a specific scale to monitor aspects of development in line with the characteristics of the autism category when applying the behavioral treatment program. The CARS scale can be used and developed to suit the purpose, the researcher proposes an empirical study to apply the current study program to the advanced age stages of the autism category, a correlational study, a comparison between the severity of autism disorder and selective attention, and a correlative study of the effectiveness of developing communication through visual communication strategies from the point of view of parents of the autism category, and longitudinal studies to track the development of methods. Verbal and nonverbal communication when using programs based on visual communication strategies. The autism category and the study of the development of the fourth stage of the program (the stage of dealing with words) and its impact on the development of verbal communication responses.

## 6. Conclusion

Looking at the aforementioned studies, they can be distributed in the light of this evaluation, as the study that was concerned with dealing with it in a pattern of its dimensions only one year ago.) and ... specific, specific, specific, specific, specific, specific, specific, specific, in the stimulus in the following studies, (chronological age, mental age, linguistic age) the members of the study sample such as the study [64–69] and it has been suggested that it is a characteristic associated with growth, language skills, and IQ ratios. While the study [70] indicated the possibility of teaching autistic people to respond to the items of a compatibility stimulus, while [71] it was shown [72] that it is a rapacious stimulus (DSM-3: 1980). To define the disorder, this situation in a state in the studies that investigated in the previous period, while in the studies of the following studies, other apartments investigated other characteristics of the stimulus, which are the multiplicity of the stimulus, the distance between the

items of the stimulus, the size and shape of the stimulus, and the study of [73–82] the correlation between family characteristics and food.

A study of the study of [83, 84] to the difficulties he face The above studies go beyond this view, with what was confirmed by the study [85] of paying attention to the stimuli that autistics are asked to direct their attention to.

The researcher suggests conducting the following scientific studies: an empirical study to apply the current study program to the advanced age stages of autism, a correlational study, a comparison between the severity of autism disorder and selective attention, and a correlative study of the effectiveness of communication development through visual communication strategies from the point of view of parents of autism class and longitudinal studies. To track the development of verbal and nonverbal communicative methods when using programs based on visual communication strategies with the autism category, and to study the development of the fourth stage of the program (the word-handling stage) and its impact on developing verbal communication responses.

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