

# **The Effectiveness of a Behavioral Therapy Program in Social Casework in the Development of Adaptive Behavior among Autistic Children**

**Abdellah Saber Abdel Hamid (PhD)**

Associate Professor of Social Casework and Head of Department,  
Faculty of Social Work, Aswan University



## **The Effectiveness of a Behavioral Therapy Program in Social Casework in the Development of Adaptive Behavior among Autistic Children**

**Abdellah Saber Abdel Hamid (PhD)**

Associate Professor of Social Casework and Head of Department,  
Faculty of Social Work, Aswan University

### **Abstract:**

The lack of basic skills is one of the major issues affecting the behavior of autistic children. This is due to delays in acquiring sensory experiences from the stimuli of the surrounding environment. This study aims to establish an individual behavioral therapy program for developing adaptive behavior skills among autistic children, whilst determining its effectiveness and its role in developing the skills of independence, social interaction, and social communication of autistic children.

**Keywords:** Behavioral Therapy in Social Casework, adaptive behavior skills, autistic children.

### **Introduction:**

Autism is a child development disorder that appears during the first three years of life. It results from physiological and neurological disorders affecting brain functions and other growth aspects, whether social, mental, emotional, or behavioral. These development disorders continue throughout a person's life but can be improved through treatment programs and educational training provided in childhood. Autistic children are characterized by developmental disabilities in social interaction, independent behavior, and sensory kinetic skills, accompanied by limited, systematic and repetitive behavior in interests and activities (El Sharkawi 2018, p.139).

The prevalence of autism, along with the associated behavioral symptoms, is estimated to be 15-20 per 10,000 people (1 in 300). The ratio of occurrence is higher among males than females with a 4:1 ratio. The number of individuals diagnosed with autism has increased significantly since the 1980s (Stephen J. Blumberg 2013, p.137) This is partially due to the changes in diagnosis and the financial incentives that the state has allocated for addressing the disorder.

Many research studies have examined the skills of autistic children directly or studied one of the associated components such as adaptive behavior skills or social and communication skills. Hancock & Kaiser (2002, pp.39-54) found that the use of educational support

with autistic children helped them to acquire social interaction skills and improve their ability to deal with strangers. Maddox's study (2010) contributed to the improvement of social communication behaviors by training a sample of autistic children in social skills. Ahmed's study (2009) indicated the effectiveness of a behavioral program in developing emotional expressions among autistic children. Abdel Karim's study (2010) found that developing a training program involves a variety of activities and games that help to develop social interaction and play among autistic children, while Abdel Moneim's study (2010) aimed to develop a training program for decreasing aggressiveness among autistic children. Mark Donald Wick Lund (2012) noted that children with autism suffer from impairments in their perception of information, understanding the cognitive status of listeners, and their perception of social attitudes due to communication disorders. Justin's study (2012) indicated that children with autism disorders suffer from undeveloped social skills, including body language and social communication skills. Mostafa's study (2015) aimed to investigate the effectiveness of a program based on art therapy techniques in the development of social skills in children with autism. The study of Qusailiat (2016) proved the effectiveness of a training program using picture table activities in developing adaptive behavior skills.

In light of the above and in light of previous studies on autistic children, we find that autistic children have a clear impairment in communication skills and social interaction. This is associated with the nature of autism, which is characterized by delays in the development of social, kinetic, and psychological skills; especially in acquiring skills of communication with family and friends, self-care, forming social relationships, and visual communication. Autistic children also show underdeveloped social skills when playing with other children, forming friendships, group integration, and increased repetitive behavioral patterns. Thus, the current study is concerned with examining communication and social interaction skills of autistic children as well as their independence skills. The results of many researches and studies have confirmed the effectiveness of training programs in the development of communication skills, developing interaction, and decreasing aggressiveness among autistic children. Therefore, the current study seeks to implement a professional intervention to develop autistic children's adaptive behavior skills.

Social Work aims to modify behavior through its structural, preventive, and curative interventions, as well as through theories and models for developing and modifying adaptive behavior skills. Behavioral therapy is an individual therapy approach which aims to achieve changes in an individual's behavior making his life, and the lives of those around him, more positive and effective. Behavioral therapy seeks to achieve this objective through scientific and experimental facts in the behavioral field. This approach has had a significant impact on the improvement of many autistic people's behavior. Many studies and a lot of research have proved the effectiveness of social work practice in general, and social casework in particular, in dealing with autistic children and their families. Zaki's study (2009) found a professional intervention program, from the perspective of general practice of social work, for the integration of autistic children in social life. The study of Susan Dababneh (2001) highlighted the importance of early intervention for reducing behavioral problems and improving social participation and the academic achievement of autistic children. The study of Ana Sofia Cervantes (2011) recommended training social workers on methods for working with autistic children in order to improve their knowledge and skills in this area. The study recommended a large variety of instruments, methods and strategies that could be used for supporting children with autism. Claire Dente's study (2012) highlighted the importance of using the ecological approach in social work with autistic children. Thus, it is clear that social work has a clear role in the care of autistic children through many therapeutic interventions in social work. Therefore, the current study seeks to develop the adaptive behavior skills of autistic children by developing their independence skills, communication skills and social interaction skills.

Thus, the study problem is determined as follows: What is the effectiveness of an individual behavioral therapy program in developing adaptive behavior skills among autistic children?

#### **Importance:**

- 1- There is an urgent need to develop adaptive behavior skills for autistic children in order to accelerate their independence and self-reliance.
- 2- Acquiring adaptive behavior skills among autistic children reduces the burden on families and caregivers due to the energy, time, and effort they consume.

3- The importance of the current study is evident in the potential benefit

obtained from the provision of an individual behavioral therapy program that contributes to the development of the adaptive behavior skills of children with disabilities, particularly autistic children.

#### **Goals:**

- 1- Testing the effectiveness of an individual behavioral therapy program in developing the adaptive behavior skills of children with autism, including social communication, social interaction and skills of independence.
- 2- The results of the study contribute to the development of therapy programs that social workers can use in activating professional practice for people with a disability, especially for autistic children and their families

#### **Concepts:**

##### **1- Effectiveness:**

Effectiveness describes all that is effective and has the ability to influence. It includes working to reach the highest levels of achievement with the lowest costs. Effectiveness is "that strong sense in a person who produces inventions and perceptions, his/her message delivery, and his/her hidden ability to recognize things". Webster Dictionary (1999, p. 402) indicates that effectiveness is the production or adaptation to production, which is effectual, sufficient, influential, or motivational. Effectiveness in therapeutic social work is the ability to assist the client to achieve the objectives of the intervention in a suitable timeframe (El Sokary 2000, p.169). Effectiveness in this study is the ability of the professional intervention program in applying Individual Behavioral Therapy in the Development of Adaptive Behavior among Autistic Children.

##### **2-Adaptive behavior of autistic children:**

There are many views on determining the concept of adaptive behavior. Some define it as the appropriate response or behavior that helps an individual interact more appropriately with others. Others see it as any behavior or skill which creates a sense of compatibility and/or meets the requirements of the surrounding environment. Others believe that it refers to the ability of an individual to be independent and to bear social responsibility. Adaptive behavior is defined as "an individual's social competence and the skills of growth, self-reliance, self-autonomy, responsibility, and the ability to form social relations with others and to adapt to the requirements of social

life situations (El Qoreity 2005, p. 206). Adaptive behavior is also defined as the ability of the individual to behave autonomously reducing his/her dependence on others. It reflects social responsibility behavior (Mohammad 2002, p. 377) The American Society defines autism as a complex developmental disability that appears in the first three years of life due to a neurological disorder that affects brain functions. A child with autism has difficulties in verbal and nonverbal communication, social interaction, and play activities, accompanied by restrictive and repetitive behavioral patterns (American Psychiatric Association, 2000). Autism is defined as a developmental disability that has an impact on all aspects of growth affecting children during the first three years of life. It negatively affects social interaction and communication skills, and may result in total absence of speech. It results from a neurological disorder that affects how the brain collects and processes information. Autism causes problems in communication skills represented in the inability to express oneself suitably, the inability to understand what others say, and the lack of usage of other skills besides verbal skills to help their ability to communicate (Fred, 2007, pp. 8-9). The term 'autistic children' in this study is defined as children with a complex developmental disability, and who suffer from difficulty or lack of social interaction, verbal and nonverbal communication disorders, lack of independence skills as well as limited activities and interests. In addition, they suffer from undesirable repetitive behavior and restrictive interests. These symptoms appear during early childhood. The term 'adaptive behavior' in this study is defined as: the extent to which the autistic child can achieve the adaptive skills included in the Adaptive Behavior Scale for Autistic Children, which measures independence skills in daily life, social interaction and social communication leading us to develop those skills in a way that suits their abilities and needs.

### **3-Behavioral Therapy in Social Casework**

For developing adaptive behavior skills: Behavioral social work is the model used by social workers. It consists of technical methods based on applying learning theories, which include operant conditioning and respondent conditioning (Soliman, et al, 2005, p264). Behavioral therapy is defined as the application of behavioral modification principles through clinical sessions for assessing and modifying undesirable behavior using tested techniques (Barker, 1995). Individual behavioral therapy aims to achieve changes in an individual's behavior, making his/her life and the lives of those

around him/her more positive and effective. Behavioral therapy achieves this objective using scientific and experimental facts in this field. Behavioral practitioners consider disorders as abnormal behavior acquired through making mistakes during the learning process (El Sanhoury, 2009, p.87) Individual behavioral therapy is defined in this study as: A professional intervention that aims to develop adaptive behavior skills among autistic children using modern behavioral techniques and methods. This includes positive reinforcement, support, observation, replication, assistance, and creating new alternatives of the desired behavior. Watson supports this idea through Pavlov's experiments. Theories of behavior and learning focus on existing factors in the environment that determines one's actions (Hayes, N. & Strattonm 2003) Techniques of individual behavioral therapy include a number of therapeutic methods using a therapeutic approach that is based on scientific facts in the behavioral field. The following are the most important techniques of the individual behavioral therapy program for developing adaptive behavior skills among autistic children:

#### **Theoretical framework:**

**Adaptive behavior skills of autistic children:** The term "autism" comes from two Greek words: "aut", meaning "self", and "ism", meaning "state". The term is used to describe persons abnormally introverted. Children with the autism spectrum disorder suffer, in one way or another, from difficulties in developing and maintaining relationships with others (Terrell & Passenger 2013, p. 48). Autism is also defined as a developmental disorder characterized by weakness in social relations, communication, language performance, and adherence to a range of behaviors and goals. Autistic children differ in terms of severity of symptoms and ways of expression in different life situations (Dawson 2008, p. 137).

Characteristics of adaptive behavior in autistic children: Autism is not a general or pervasive disorder. It represents a severe problem that appears during early childhood affecting all aspects of growth. It is characterized by impaired attention, lack of communication and social relations with others, in addition to repetitive behavioral patterns and lack of ability to engage with reality, as well as impaired language development (Soliman 2002, pp. 111-112). Autistic children are characterized by a variety of behaviors that differ from one child to another in terms of severity and intervention. Based on theoretical literature, research, and studies, the most severe and prevalent aspects



of adaptive behavior among autistic children can be presented as follows: (El Galby, 2005),(Targa Brill, 2001,p. 4), Fred, (2007), (Fortenberry, 2010), Aman, MG, 2007,p37) and (Lam KSL).

- Clear impairment in social interaction and the lack of desire for making friends and relationships that allow them to engage with others.

It is also characterized by impairment in social reactions, difficulties in social interaction, and failure to form relations with others.

- Difficulty in communicating with others and difficulty in establishing verbal communication with others, due to weak linguistic expression and delayed speech. Use of strange, made-up words, and an inability to communicate non-verbally.

- The inability to depend on themselves in their needs of eating and clothing and other matters of daily life. Inability to perform their homework without support, and the inability to be independent and make decisions without asking for help from others.

### **Techniques of individual behavioral therapy:**

Watson supports this idea through Pavlov's experiments. Theories of behavior and learning focus on existing factors in the environment that determines one's actions (Hayes, N. & Strattonm 2003).

Techniques of individual behavioral therapy include a number of therapeutic methods using an approach that is based on scientific facts in the behavioral field. The following are the most important techniques of the individual behavioral therapy program for developing adaptive behavior skills in autistic children:

1. **Modeling:** The learning of a certain behavior through observation of the positive behaviors of others and imitating it. The technique is performed through presenting positive models to teach the child correct behavior in order to change his behavior and acquire new behaviors'. The modeling method is used in training on the skills of independence, social interaction, and communication with others. It is performed through direct modeling or participatory modeling (Abdel Rahman 2008, p. 16).
2. **Positive reinforcement:** This method of treatment uses reward or support. It is used after the child performs the desired behavior. This method is often used with autistic children performing the targeted behaviors in order to reinforce those behaviors and to train them to maintain those behaviors (Leach, Debra and Duffy, Mary, 2009: 37).

3. **Training on social courage:** This method of therapy is used in cases of personal relations where the child is not able to express himself or his emotions. The child is trained to communicate or express his needs.
4. **Punishment:** A procedure which decreases or stops undesirable behavior. Punishment could be emotional through scolding such as saying: “silence”, “wrong” or “no”, or physical, such as hitting or pinching. Punishment is only used when all previous methods fail.
5. **Support:** A procedure that aims to strengthen the desired behavior and increase its future occurrence. It includes several types such as social, positive, and negative emphasis (Zahran, 2001: 246).
6. **Illustrative table activity:** A set of images, each representing a specific activity guiding the autistic child to perform them (Mohammed2002, p.72-71). The table is in the form of a photo album, each page aiming to motivate the child to perform tasks involved in the targeted activities
7. **Learning through observation:** This is one of the main methods through which autistic children acquire models or amended patterns of behavior that require modeling or imitation. Autistic children could gain direct experiences through watching the behavior of others.
8. **Assistance or motivation:** There are many types of assistance for helping autistic children perform the right behavior, skill, or response. This includes physical assistance, meaning guiding the child towards the behavior, skill, or correct response through physical interventions, such as holding the child’s hand and guiding him/her towards the correct response. It also includes verbal assistance. Assistance or motivation is used in activities that require physical actions, while verbal motivation is used in activities that require it.

### **Method:**

This study seeks to verify the validity of the following hypotheses

- 1- There are statistically significant differences between the pre- and post- tests of the experimental group in favor of the post-tests on the adaptive behavior skills scale.

### **This is achieved through the following hypotheses:**

- a- There are statistically significant differences between the mean scores of the pre- and post-tests in favor of post-tests on the dimension of independence skills of autistic children.

- b- There are statistically significant differences between the mean scores of the pre- and post-tests in favor of post-tests on the dimension of social interaction skills of autistic children.
- c- There are statistically significant differences between the mean scores of the pre and post-tests in favor of post-tests on the dimension of social communication skills of autistic children.
- 2- There are no statistically significant differences between the mean scores of the post-tests and the follow-up tests of the experimental group on the adaptive behavior skills scale.

### **Design of the Study:**

The study is a quasi-experimental study aiming to determine the impact of an independent experimental variable (professional practice of individual behavioral therapy) on a dependent variable (developing the adaptive behavior skills of autistic children) using the one-group method with different measures; pre, post, and follow-up.

### **Study Tools:**

1 - Adaptive Behavior Skills Scale for autistic children designed by the researcher: The objective of this scale is to assess the level of adaptive behavior skills of autistic children, namely the skills of independence, social communication, and social interaction. The scale design process went through several steps until finalization, starting with reviewing theoretical concepts, definitions, and research related to adaptive behavior. The scale was then developed in its preliminary form, containing 40 statements. The preliminary scale was presented to a number of professors specialized in sociology, psychology and education. In addition, the scale was piloted with a sample of 20 individuals (10 mothers of autistic children and 10 social workers and supervisors working with autistic children) to ensure the scale's validity and reliability. The following are the steps taken for finalizing the scale:

The internal consistency was calculated through determining the correlation between the statements and the total score of the dimensions and the correlation between the dimensions with total score of the scale using Pearson's correlation coefficient. This proved the existence of a statistical correlation with a significance level of the total score. This excluded the following statements: statement 5, 7, 8, and 15 in the first dimension; statement 5, 6, and 13 in the second dimension; and statement 12 in the third dimension. Those statements were omitted, as they were not significant. The total number of statements in the scale were finalized at 32 statements where the first

dimension contained 11 statements; the second dimension contained 10 statements, while the third dimension contained 11 statements. Concerning dimensions, the correlation coefficients between the dimensions of the scale and the total score were statistically significant at a level of 0.001, which is considered a good indicator for the validity level and relevance of the scale. The reliability coefficient for the scale reached 0.72 using ( $\alpha$ ) Cronbach coefficient, where the reliability coefficient for the first dimension was 0.76, for the second dimension 0.74, and for the third dimension 0.79, which is an acceptable and credible value. The split-half coefficient for the scale was 0.80. After modification using Spearman Brown reliability coefficient, it reached 0.85. The reliability coefficient for the dimensions was also acceptable and trusted proving the reliability and relevance of the scale.

2- Observation Guide for adaptive behavior skills for autistic children, designed by the researcher. Used for observation of adaptive behavior skills among the autistic children targeted by the intervention. The guide consisted of three main sections; the first is related to the observation data, the observed child, and the observer, the second is related to the logistical procedures of the observation, the third is related to the targeted skills of the observation through actual recording of the frequency of the skills' occurrence.

### **Domains of the Study:**

**Study place:** The study was conducted at the Day Care Center for Persons with Special Needs in Aswan Governorate, for the following reasons:

- The Center works in the field of caring for children with disabilities in general and autistic children in particular.
- The Center includes a team in all specialties related to the care of children with autism.
- The Center and families of autistic children approved the conducting of the study and the implementation of the professional intervention program.

**Study Field (Duration):** The study was conducted from 1/10/2018 to 31/3/2019.

**Sample:** The sample was chosen by the method of the comprehensive inventory of autistic children at the center, as recorded in the association's records. The center was serving 12 cases aged 5–8 years old. The intervention program was applied to 9 cases who visited the center regularly and who agreed to participate. The other 3 cases were not regular visitors at the center and the families did not agree to participate in the program.

## Professional Intervention Controls

Behavioral contracting with the families of children with autism to implement the professional intervention program, where the dates and places of therapeutic interviews and the stage of the professional intervention were agreed and the tasks of the intervention parties were determined. Therapeutic tasks associated with independence skills, social communication skills and social interaction skills.

### Results:

In light of the objectives of the study, the findings were reached through the (Z) test which calculated the mean differences, and the percentages of improvement are presented as follows:

**Results of the first hypothesis:** “There are statistically significant differences between the pre and post- tests of the experimental group in favor of the post-tests on the adaptive behavior skills scale”.

The following table presents the related results:

**Table (1) – Differences between the mean scores of the pre and post- tests on autistic children using the adaptive behavior skills scale**

Measure Scale	Pre-test		Post-test		Z Value	Level of Significance
	Mean	Standard Deviation	Mean	Standard Deviation		
Adaptive Behaviour Skills Scale	40.33	3.21	63.55	6.38	2.67	0.01

The results of Table (1) above indicate the existence of statistically significant differences between the pre and post-tests on the adaptive behavior skills scale for autistic children in favor of the post-test. The mean score of the pre-test for adaptive behavior skills was 40.33 with a standard deviation of 3.21, while the mean score of the post-test was 63.55 with a standard deviation of 6.38. The calculated Z value of adaptive behavior skills was 2.67. These results indicate an improvement in the level of adaptive behavior skills among participating autistic children, reaching 24%. This means that the individual behavioral therapy program led to positive changes evident in the improvement of the level of adaptive behavior skills. This is also evident in the improvement level of the sub-dimension of adaptive behavior skills represented in the skills of independence, social interaction, and social communication of autistic children. These results prove the validity of the first hypothesis. The following presents the results of the sub-hypotheses related to the first hypothesis.

**Results of the first sub-hypothesis:** “There are statistically significant differences between the mean scores of the pre and post-tests in favor of post-tests on the dimension of independence skills in autistic children”.

Results are presented as follows:

**Table (2) – Differences between the mean scores of the pre and post- tests on autistic children in the independence skills of autistic children**

Measure	Pre-test		Post-test		Z Value	Level of Significance
	Mean	Standard Deviation	Mean	Standard Deviation		
Independence Skills	12.88	1.53	21.88	4.01	2.68	0.01

The results of Table (2) above indicate the existence of statistically significant differences between the pre and post-tests on the independence behavior skills scale for autistic children in favor of the post-test. The mean score of the pre-test for independence behavior skills was 12.88 with a standard deviation of 1.53, while the mean score of the post-test was 21.88 with a standard deviation of 4.01. The calculated Z value of independence behavior skills was 2.68, which is statistically significant at a significant level of 0.01. The improvement in the skills of independence were evident in the autistic children’s ability to use eating and drinking tools independently, to walk properly, to control urination and defecation, and to depend on themselves for dressing and other needs. These results indicate an improvement in the level of independence behavior skills among participating autistic children, which proves the validity of the first sub-hypothesis.

**Results of the second sub-hypothesis:** “There are statistically significant differences between the mean scores of the pre and post-tests in favor of post-tests on the dimension of social communication skills in autistic children”. Results are presented as follows:

**Table (3) – Differences between the mean scores of the pre and post- tests on autistic children in the social communication skills of autistic children**

Measure	Pre-test		Post-test		Z Value	Level of Significance
	Mean	Standard Deviation	Mean	Standard Deviation		
Social Communication Skills	13.55	1.23	21.77	1.64	2.68	0.01

The results of Table (3) above indicate the existence of statistically significant differences between the pre and post-tests on the social communication skills scale for autistic children in favor of the post-test. The mean score of the pre-test for social communication skills was 13.55 with a standard deviation of 1.23, while the mean score of the post-test was 21.77 with a standard deviation of 1.64. The calculated Z value of social communication skills was 2.68, which is statistically significant at a level of 0.01. The improvement in the skills of social communication were evident in the autistic children's ability to express their needs clearly, understand what others are saying, hold conversation, and use facial expressions. These results indicate an improvement in the level of social communication skills among participating autistic children, which proves the validity of the second sub-hypothesis.

**Results of the third sub-hypothesis:** "There are statistically significant differences between the mean scores of the pre and post-tests in favor of post-tests on the dimension of social interaction skills in autistic children". Results are presented as follows:

**Table (4) – Differences between the mean scores of the pre and post- tests on autistic children in the social interaction skills of autistic children**

Measure	Pre-test		Post-test		Z Value	Level of Significance
	Mean	Standard Deviation	Mean	Standard Deviation		
Social Interaction Skills	13.88	1.36	19.88	1.76	2.69	0.01

The results of Table (4) above indicate the existence of statistically significant differences between the pre and post-tests on the social interaction skills scale for autistic children in favor of the post-test. The mean score of the pre-test for social communication skills was 13.88 with a standard deviation of 1.26, while the mean score of the post-test was 19.88 with a standard deviation of 1.76. The calculated Z value of social communication skills was 2.69, which is statistically significant at a significant level of 0.01. The improvement in the skills of social interaction were evident in the autistic children's ability to express happiness, laugh, participate with their peers in playing, forming relationships with peers, express emotions, and thank others. These results indicate an improvement in the level of social interaction skills among participating autistic children, which means that the individual behavioral therapy program led to positive changes



represented in the improvement of social interaction skills. This proves the validity of the third sub-hypothesis.

**Results of the second study hypothesis:** “There are no statistically significant differences between the mean scores of the post-tests and the follow-up tests of the experimental group on the adaptive behavior skills scale”. Results are presented as follows:

**Table (5) – Differences between the mean scores of the post and follow- up test on autistic children on adaptive behavior skills of autistic children**

Measure	Post-Test		Follow-Up Test		Z Value	Level of Significance
	Mean	Standard Deviation	Mean	Standard Deviation		
Independence Skills	21.88	4.01	22.00	3.93	0.37	Not Significant
Social Communication Skills	21.77	1.46	21.55	1.94	0.31	Not Significant
Social Interaction Skills	19.88	1.76	20.22	1.92	0.34	Not Significant
Adaptive Behaviour Skills Scale	63.55	6.38	63.77	6.24	0.48	Not Significant

The results of Table (5) above indicate the lack of statistically significant differences between the post and follow-up on the social adaptive behavior skills scale for autistic children. The mean score of the post-test on the adaptive behavior skills of autistic children was 63.88 with a standard deviation of 6.38, while the mean score of the follow-up test was 63.77 with a standard deviation of 6.24. The calculated Z value of adaptive behavior skills of autistic children was 0.48, which is statistically insignificant. The results of the table also indicate the lack of statistically significant differences between the post and follow-up test of the sub-dimensions of adaptive behavior among autistic children. The Z value of independence skills was 0,27, the Z value of social communication skills was 0.31, and the Z value of social interaction skills was 0.34, all of which were not statistically significant at a significance level of 0.01. Thus, the differences were not statistically significant for the level of adaptive behavior skills and the sub-dimensions of the scale, which confirms the sustainability of changes in the experimental group as a result of professional intervention efforts using individual behavioral therapy techniques. This proves the validity of the second study hypothesis.



## Discussion:

The presented results demonstrate that implementing an individual behavioral therapy program has achieved positive results in developing adaptive behavior skills among autistic children. This was achieved through improvement in the level of independence, social communication, and social interaction skills. This is made clear through the improvement rates of the cases participating in the program after the professional intervention, where case number (9) ranked first with a 34% improvement rate. Ranked second, cases 1 and 5 which showed a 27% improvement, while fourth were cases 4 and 7 which showed a 22% improvement rate. Ranked 8<sup>th</sup> was case number 3, with an improvement rate of 21%, and ranked last was case number 7 with an improvement rate of 18%. The results thus prove the effectiveness of the individual behavioral therapy program in developing adaptive behavior skills among cases of autistic children, and prove the validity of the first hypothesis. These results agree with the results of several previous studies that clarified the effectiveness of professional intervention programs in dealing with autistic children. This includes Mohammed's study (2000) that indicated the effectiveness of a behavioral training program in reducing aggressive behavior among autistic children, and Zaki's study (2009) that established a professional intervention program for the inclusion of autistic children. This is in addition to Abdel Moneim's study (2010) which proved the effectiveness of a training program for reducing aggression in autism. Results of previous studies indicate that changes in adaptive behavior among intervention cases resulted from the use of individual behavioral therapy techniques, thus proving the validity of the first hypothesis and calls for its acceptance. The results of the previous studies (call) for the acceptance of the related sub-hypotheses as follows:

- The results of table (2) indicated improvement in the level of independence skills among autistic children, where the rate of improvement reached 24%. These skills were represented in maintaining general appearance, dressing and taking off clothes, using the toilet, personal hygiene, eating, asking permission, table manner, movement, and other skills. This proves that the individual behavioral therapy program led to positive changes towards the improvement of the independence skills of autistic children. These results are consistent with the findings of many studies and research including Abdel Hamid's study (2013) which proved the effectiveness of a

training program for developing some independence skills among autistic children. The results are also consistent with Mahmoud's study (2015) which clarified the effectiveness of an early intervention program in developing independence skills among a group of autistic children.

- The results of table (3) indicated an improvement in the level of social communication for autistic children at a 28% improvement rate. Improvement was evident in the children's ability in visual communication, using signs and facial expressions in communication, and expressing their needs with clear terms. This proves that the individual behavioral therapy program led to positive changes towards the improvement of the social communication skills of autistic children. These results are consistent with the findings of many studies and research including Amin's study (2001) which indicated the effectiveness of a training program for developing verbal communication among autistic children. The results are also consistent with Nayazek's study (2008) which revealed the extent of the effectiveness of a training program in developing verbal communication skills among autistic children, and Laws' study (2012) which indicated the effect of peer groups on autistic children suffering from weak language and communication.

- The results of Table (4) indicated an improvement in the level of social interaction among autistic children at an 18% improvement rate. Improvement was evident in the children's ability for interacting with his family members and peers in the center, responding to guidance from capacity development and educational skills specialists and supervisors, and participating in play with peers. This proves that the individual behavioral therapy program led to positive changes towards the improvement of the social interaction skills of autistic children. These results are consistent with the findings of many studies and research including Kamal El Din's study (2001) which aimed to provide autistic children with social behavior skills. Results are also consistent with Abu El Soud's study that aimed to develop emotions among autistic children, and Ahmed's study (2009) which aimed to develop emotional expressions in a sample of autistic children.

Despite the variation of results from one case to another, the researcher believes that a number of factors that affected the implementation of the individual behavioral therapy program for developing adaptive behavior skills for autistic children can be summarized as follows:

1. The commitment of the families of autistic children to being provided with care, and their effective participation in implementing the therapy program, including conducting the assigned tasks related to the targeted skills in the current study.
2. Most of the autistic children targeted by the current study are mild and medium cases which resulted in a positive impact on the children's ability to perform the needed tasks related to adaptive behavior skills, especially independence and communication skills.
3. The presence of a team of specialists and supervisors at the center working with children while maintaining a team spirit and exchange of experience.
4. The nature of the center and its possession of many aids and tools that were used during the implementation of the therapy program.
5. Cultural differences between autistic children leading to different degrees of response in performing tasks and duties associated with the professional intervention, in turn leading to different levels of impact between cases.
6. Although the current study has revealed the effectiveness of an individual behavioral therapy program in the development of adaptive behavior skills among autistic children, the results of the study could not be generalized. The study and the researcher have provided indicators that need further research for comparison with the results of this study to determine the most suitable therapeutic approaches of dealing with autistic children.

### References:

- Abdel Hakim, N. Saber** (2012), The reality of Individual Social Work Professional Skills Practice with Families of Autistic Children, 25<sup>th</sup> International Conference, Faculty of Social Work, Helwan University. Part 2.
- Abdel Hamid, M.** (2013), Training Program to Develop Independence Skills among Autistic Children, Arab Studies in Education and Psychology, Saudi Arabia, p. 38, part 4.
- Abdel Karim, S. Mohammed** (2010), The Effectiveness of a Training Program in Developing Play and Social Interaction Skills among Autistic Children, Ph.D. thesis, Faculty of Arts, Mansoura University.
- Abdel Moneim, M. Mamdouh** (2010), The Effectiveness of a Training Program in Reducing Aggression in Autistic Children, Master Thesis, Faculty of Education, Beni Suef University.
- Abdel Rahman, H. Ahmed** (2008), Introduction to the Study of Human Behavior, Giza, El El Elmeia for Publishing and Distribution.
- Abdellah, M. Kassem** (2001), The Autistic Child, Introversion and Treatment, Modern Trends, Jordan, Dar Al Fikr Al Arabi.

- Abu El-Seoud, N. Ibrahim** (2002), Effectiveness of the Use of a Cognitive Behavioral Therapy Program in the Development of Emotions among Autistic Children and their Parents, unpublished doctoral (PhD) thesis, Institute of Research and Childhood, Ain Shams University
- Ahmed, F. Ibrahim** (2009), The Effectiveness of a Behavioral Therapy Program in Developing Emotional Expressions in a Sample of Autistic Children, a research published at Damascus University Conference.
- Al-Qureiti, A. Amin** (2005), The Psychology of Persons with Special needs and their Upbringing, Issue 4, Cairo, Dar El Fikr El Arabi.
- American Psychiatric Association** (2000), Diagnostic and Statistical Manual of Mental Disorders: DSM-IV. 4th ed., Washington, DC, American Psychiatric Association.
- Barker, R.** (1995), The Social Work Dictionary, 3rd ed, Washington, DC: National Association of Social Workers.
- Cervantes, A.** (2011), Training Health Care Providers on Working with Children with Autistic Disorder: A Curriculum, M.S.W., California State University, United States.
- Dababneh, S.** (2011), Early Screening for Autism Spectrum Disorders: A Primer for Social Work Practice, Children and Youth Services Review. Vol.33 (2), pp. 265-273
- Dawson, S.,** (2008), Autism Spectrum Disorders, Encyclopedia of Infant and Early Childhood Development.
- Dente, C.** (2012), Ecological Approaches to Transition Planning for Students with Autism and Asperger's Syndrome Children & Schools, Vol. 34 (1), pp. 27-36.
- El Galabu, S. Shaker** (2005), Childhood Autism (Causes, Characteristics, Diagnosis, and Treatment), Alaa El Din Association for Publishing and Distribution, Damascus.
- El Sanhoury, A. Youssef** (2009), Clinical Work with Individuals, Contemporary Theories and Trends, Alexandria, Modern University Office, 2009, p. 87.
- El Sharkawy, M. Abdel Rahman** (2018), Autism and Means of Treatment, Dar El Elm Wa Al Iman for Publishing and Distribution, Desouk.
- El Sakkary, A. Shafiq** (2000), Dictionary of Social Work and Social Services, Alexandria, Dar Al Maarifa El Game'ia.
- Fortenberry, C. Lane** (2010), Personality Differences in Autistic and Typically Developing children, Western Carolina University, United State.
- Fred, V.** (2007), Autism and Pervasive Developmental Disorders. Second edition, Cambridge Child and Adolescent Psychiatry.
- Hancock, T. & Kaiser A.** (2002), The Effects of Trainer Implemented Enhanced Milieu Leaching on the Social Communication of Children with Autism: Topics in Early Childhood Special Education (22).
- Hayes, N. & Stratton** (2003), A Student's Dictionary of Psychology 4th ed., London, Arnold Publishers.
- Justin, A.** (2012), A Quantitative Review of Social Skills Interventions for Children and Adolescents with Autism Spectrum Disorders, St. John's University (New York), United States.
- Kamal El-Din, H.** (2001), Designing a Program for the Development of Social Behavior in Children Showing Symptoms of Autism, PhD thesis, Institute of Post Graduate Studies in Childhood, Ain Shams University.

- Lam K.S.L., Aman M.G.** (2007), The Repetitive Behavior Scale-Revised: Independent Validation in Individuals with Autism Spectrum Disorders. *J Autism Dev Disord.* 37(5):855–66
- Laws, G. and Bates, G.** (2012), Peer Acceptance of Children with Language and Communication Impairments in a Mainstream Primary School: Associations with Type of Language Difficulty, Problem Behaviors and a Change in Placement Organization, London, United States.
- Leach, D. & Duffy, M.** (2009), Supporting Students with Autism Spectrum Disorders in Inclusive Settings, *Intervention in School and Clinic*, 45(1): 31-37.
- Maddox, L.** (2010), Effects Systematic Social Skills Training of the Social Communication Behaviors of Young Children with Autism during Play Activities, A thesis presented in partial fulfillment of requirements for the degree of doctor of philosophy, University of Nebraska.
- Mahmoud, D. Mohammed** (2015), Effectiveness of an Aarly Intervention Program in Developing Independence Skills in a Group of Autistic Children, *Journal of Faculty of Education, Assiut*, Volume 31, Issue 2.
- Mohammed, A. Abdallah** (2000), The Effectiveness of a Training Program for the Development of Social Skills and Social Interactions for Autistic Children, Research published in the Faculty of Arts Research Journal, Menoufia University, Issue 7.
- Mohammed, A. Abdallah** (2002a), Autistic Children "Diagnostic and Program Studies", Cairo: Dar Al-Rashad.
- Mohammed, A. Abdullah** (2002b): Picture Table of Activities for Autistic Children, Cairo, Dar Al-Rashad.
- Mustafa, D.** (2015), Art Therapy and Social Skills Development in Children with Autism, *International Specialized Journal*, Vol. 4, Issue.4.
- Nayazak, S. Mohammed** (2008), Effectiveness of Applying a Training Program for Developing Language Communication Skills in Pre-School children in Jeddah Governorate, Master's Thesis, Girls Faculty of Education, El Madinah El Monawara, Tibah University.
- Qusailat, F.** (2016), Effectiveness of a Training Program based on the Use of Picture Table Activities in the Development of Adaptive Behavior in Autism, *El Basira Center for Consulting and Educational Services*, Issue 13.
- Stephen J. Blumberg** (2013), Changes in Prevalence of Parent-Reported Autism Spectrum Disorder in School-aged U.S. Children: 2007 to 2011–2012, *National Health Statistics Reports*.
- Sulaiman, A.** (2002), *Autism Disability*, Cairo, 2nd edition, Zahraa Al Sharq Bookshop.
- Sulaiman, H. et al., Hussain** (2005), *General Practice in Social Work for Individuals and Family*, Magd, University Association for Research, Publishing and Distribution, Beirut.
- Targ, M. Bill,** (2001), *Key Stereotyping the Child with Autism*, N.Y., Barron's Education Series, Inc.
- Terrell, C. and Passenger, T.** (2013), *Autism, Hyperactivity, Dyslexia and Reading Performance*, translated by Mark Aboud, Dar El Moalef, Riyadh.
- Webster. M:** (1999) *Webster Comprehensive Dictionary*, Trident Press International, U.S.A.

- Weyandt, A.** (2012), The Effectiveness of Specialized Applied Behavior Analysis (ABA) on Daily Living Skills for Individuals with Autism and Related Disorders Ages 8 to 19, Alliant International, University Fresno, United States, California.
- Wicklund, M. Donald** (2012), Use of Referring Expressions by Autistic Children in Spontaneous Conversations: Does Impaired Meta Representational Ability Affect Reference Production? Ph.D., University of Minnesota, United States.
- Zahran, H.** (2001) Mental Health and Psychotherapy, I 3, Alam El Kotob.
- Zaki, A.** (2009), The Effectiveness of Professional Intervention from the Perspective of General Practice in Social Work for the Integration of Autistic Children into Social Life, PhD Thesis, Faculty of Social Work, Helwan University.