

Adaptive Behavior Skills and Quality of Life among Autistic Children

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Abstract

Background: There has been a documented increase in the diagnosis of Autism Spectrum Disorders (ASD), making it to be one of the fastest growing diagnosed disabilities in children. Two of most critical issues that concern the autistic child are adaptive behavior skills with disease process and quality of life of these children.

Aim of Study: This study examines the relationship between adaptive behavior skills and quality of life among autistic children.

Material and Methods: The study design was correlational descriptive design, the subjects was recruited from Special Needs care Center at the Institute of Postgraduate Studies Childhood at Ain Shams University. A purposive sample of forty five caregivers of autistic children who met the inclusion criteria was included, the data was collected by using socio-demographic data sheet, Vineland Adaptive Behavior Scale (VABS) and The KINDLR questionnaire and was analyzed by personal computer using Statistical Package for Social Science (SPSS) program at significant level ($p < 0.05$).

Results: The study shows that there are highly significant statistical positive correlation between adaptive behavior skills and self-esteem, adaptive behavior skills and school and adaptive behavior skills and social contacts, it also shows that there are significant statistical correlation between adaptive behavior skills and physical well-being, emotional wellbeing, family and adaptive behavior skills and total quality of life.

Conclusion: From all findings this study showed that the quality of life of autistic children is affected by their adaptive behavior skills so that future studies should develop adaptive behavior skills of autistic children to improve their quality of life.

Key Words: Autism – Adaptive behavior skills – quality of life.

Introduction

AUTISM Spectrum Disorders (ASDs) are complex neurobiological and developmental disabilities that

typically appears during a child's first three years of life. Autism affects the normal development of the brain in social interaction and communication skills. It ranges in severity from mild to moderate to severe. Symptoms associated with autism spectrum disorders include significant deficits in social relatedness, including communication, nonverbal behavior, and age-appropriate interaction [1].

He also added that, there are deficits in developing and maintaining relationships. Other behaviors include stereotypical repetitive speech, use of objects, over adherence to routines or rituals, fixations with particular objects, hyper-or hypo-reactivity to sensory input, and extreme resistance to change. The symptoms will first occur in childhood and cause impairments in everyday functioning [1].

The definition of adaptive behavior has changed little over time and has remained abroad construct. Adaptive behavior was first defined by the American Association of Mental Deficiency [2] “the effectiveness with which the individual copes with the natural and social demands of his environment.” This definition included two major facets: (1) The degree to which the individual is able to function and maintain himself or herself independently, and (2) The degree to which (s) he satisfactorily meets the culturally-imposed demands of personal and social responsibility [3]. The American Association of Intellectual and Developmental Disability (AAIDD) has recently defined adaptive behavior as “the collection of conceptual, social, and practical skills that have been learned and are performed by people in their everyday lives” [4].

Adaptive behavior can be understood as a measured construct reflecting real-life functioning. In contrast to the assessment of other abilities, such as cognitive or language functioning, measured

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adaptive functioning represents typical performance rather than the potential ability of the individual, i.e., what a person does on a day-to-day basis as opposed to what a person is capable of doing under optimal conditions. Adaptive behavior is defined on the basis of the everyday activities necessary to take care of oneself, communicate and get along with others [5]. The assessment of adaptive behavior encompasses tasks carried out routinely by an individual in various domains of daily functioning, such as communication, daily living skills, social interaction, and motor skills [6].

Children with Autism Spectrum Disorders (ASD) experience deficits in social interaction, communication, and show stereotyped and repetitive behavior [7]. Given the pervasive nature of this neurodevelopmental disorder, children with ASD are challenged in various developmental domains which are of importance for the so called Quality of Life (QoL). QoL is a more subjective appraisal of one's own well-being, as compared to objectively measurable factors such as health-status or functional impairment [8] and has been studied increasingly in people with ASD in the last decade [9].

Subjective Quality of Life (QoL) represents a multidimensional construct defined by the World Health Organization as "individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" [10].

Consistent with this multidimensional conceptualization, measures of subjective QoL usually include physical, psychological and social domains [11]. When extended to individuals with Autism Spectrum Disorder (ASD), subjective QoL provides an opportunity to understand the extent to which adults with ASD are satisfied with various domains of their life, and measurement of subjective QoL enriches more traditional approaches to understanding outcomes during adulthood [12].

QoL for individuals with ASD is often an important treatment outcome and improving their QoL is a main objective of many interventions and social services, it is critical to accurately assess the subjective QoL of adults with ASD and to identify factors associated with a favorable QoL [13].

Adaptive behavior is important as it relates to one's ability to be self-sufficient and care for one's basic needs. However, the fulfillment of basic needs is not sufficient for quality of life. It is

necessary for an individual to be involved in making choices about one's own life, participate in enriching activities that are pleasurable, and have an opportunity to be involved in social and community [14]. Ensuring that an individual with ASD achieves an acceptable quality of life possess particular challenges, as the core deficits of this disorder are direct obstacles to community inclusion and development of adaptive skills; namely deficits in communication, socialization, and repetitive interests, as well as a high prevalence of co-occurring intellectual disability [15].

To date, Egypt does not have specific statistics on how prevalent the disorder is in the country. Soliman D, the president of the Egyptian Autistic Society (EAS) mentioned that "Here in Egypt, we are trying to be conservative and it appears one autistic children in every 250-300 children", [16]. In the United States, the prevalence of ASD is approximately 1 in 68 children, with 1 in 42 among boys [17].

This study aimed to examine the relationship between adaptive behavior skills and quality of life among autistic children.

Material and Methods

This study aimed to examine the relationship between adaptive behavior skills and quality of life among autistic children. The research question was (1) What is the level of adaptive behavior among autistic children? (2) What is the level of quality of life among autistic children? (3) What is the relationship between adaptive behavior skills and quality of life among autistic children?

Correlational descriptive design was used to describe relationships among variables, without attempting to infer causal connections. The purpose of descriptive studies is to observe, describe, and document aspects of a situation [18]. The study was conducted at Special Needs care Center at the Institute of Postgraduate Studies Childhood at Ain Shams University between February and July 2017.

A purposive sample of care givers of school age autistic child was utilized (45 caregivers), this number was selected according to the capacity number of the center and the inclusion criteria which include: (1) Caregivers of children diagnosed with ASD. (2) Age group: Caregivers of school age children (6-12 years). (3) Caregivers of children with both gender and the all caregivers of children whom have history of significant sensory or motor impairment, serious traumatic brain injury, major

physical anomalies, genetic disorders associated with ASD (e.g, fragile X syndrome) or neurological disease was excluded from this study.

1- *Personal and medical data tool*: It was developed by the researcher and included two main parts: First part: Child's information including: Age, sex, diagnosis, number of family members, order of child in family. Second part: Caregiver's information including: Age, sex, occupation, level of education, relation to child.

2- *Vineland Adaptive Behavior Scale (VABS)*: The scale was developed by Sparrow, Balla & Cicchetti (1984). The Arabic version of the scale and validity and reliability was done by Elwan (2000), it is used to assess adaptive behavior skills in children with ASD, the scale consists of 181 items and divided into three subscales as follows: First subscale (communication): Measure child communication behaviors and composed of 67 items. The second subscale (daily living skills) measure child behavior during daily living activities and composed of 67 items. The third subscale (socialization) measure socialization skills of the child and composed of 47 items.

Total score categorized as follows:

- From 131 to 160: High adaptive level.
- From 116 to 130: Moderate high adaptive level.
- From 85 to 115: Adequate adaptive level.
- From 70 to 84: Moderate low adaptive level.
- From 55 to 69: Mild deficit adaptive level.
- From 40 to 54: Moderate deficit adaptive level.
- From 25 to 39: Severe deficit adaptive level.
- 24 and less: Profound deficit adaptive behavior.

The KINDLR questionnaire: It was used to measure Health-Related Quality of Life in Children and Adolescents represents a German-language measure [19]. It consists of 2 version child's version and parent's version each version consist of 24 Likert-scaled items associated with six dimensions: Physical well-being (4 items), emotional well-being (4 items), self-esteem (4 items), family (4 items), social contacts (4 items) and everyday functioning (school) (4 items). The sub-scales of these six dimensions can be combined to produce a total score.

Statistical analysis:

Collected data was scored, tabulated and analyzed by personal computer using Statistical Package for Social Science (SPSS) program. Descriptive as well as inferential statistics was utilized to

analyze data pertinent to the study. Level of significant was set at $p < 0.05$.

t-test was used to describe relationship between autistic children gender and adaptive behavior skills and quality of life, ANOVA test was used to describe relationship between autistic children age groups, family member numbers, rank, adaptive behavior skills and quality of life, it was also used to describe relationship between autistic children caregivers demographic data, adaptive behavior skills and quality of life.

Results

Table (1) shows that the majority of study sample were male (71.1%), 60% aged between 6-8 years, 44.4% of families of autistic child contained of 4 persons and 53.3% of autistic children ranked as a second child.

Table (1): Distribution of autistic children according to their personal characteristics data (n=45).

Personal characteristics data	Number of children	Percentage
<i>Gender:</i>		
Male	32	71.1
Female	13	28.9
<i>Age:</i>		
6->9 years	27	60
9->11 years	11	24.4
11-12 years	7	15.6
<i>Family number:</i>		
3 persons	7	15.6
4 persons	20	44.4
5 persons	16	35.6
6 persons	2	4.4
<i>Rank of autistic child:</i>		
First child	12	26.7
Second child	24	53.3
Third child	9	20

Table (2) shows that the majority (62.2%) of study sample never felt ill while 26.7% of autistic child felt strong and full of energy all the time, no children felt ill, had headache or tummy ache or tired and worn out all the time, 46.7% of autistic children often had fun and laugh a lot while 2.2% of children did not feel much like doing anything or felt scared or unsure of themselves all the time, 60% of autistic children never had lots of good idea, also 48.9% of them never felt proud, on top of the world nor pleased with themselves, 46.7% of children seldom quarreled at home, 55.6% of children never got along well with their friends and never did things together with friends, 86.7% of children never afraid of bad marks or grades, 82.2% of children never worried about their future

Table (3): Relationship between autistic children demographic data and adaptive behavior skills (n=45).

	Test	M	SD	Results of test	p
<i>Gender:</i>					
Male	t-test	2.59	.87	-.95	0.46
Female		2.92	1.12		
<i>Age groups:</i>					
6->9 years	ANOVA	3	1	4.18	0.02
9->11 years		2.18	.60		
11-12 years		2.29	.76		
<i>Family number:</i>					
3 persons	ANOVA	2.14	.38	1.93	0.14
4 persons		2.55	.83		
5 persons		3.06	1.18		
6 persons		3	0		
<i>Rank of autistic child:</i>					
First child	ANOVA	2.33	.98	1.19	0.31
Second child		2.79	.93		
Third child		2.89	.93		

Level of significance <0.05.

Table (4): Relationship between autistic children demographic data and quality of life (n=45).

	Test	M	SD	Results of test	p
<i>Gender:</i>					
Male	t-test	76.22	11.47	-0.18	0.71
Female		76.92	13.13		
<i>Age groups:</i>					
6->9 years	ANOVA	75.85	10.74	0.13	0.88
9->11 years		78	11.22		
11-12 years		76.14	11.57		
<i>Family number:</i>					
3 persons	ANOVA	85.43	8.50	1.97	0.13
4 persons		76.00	11.92		
5 persons		73.94	12.20		
6 persons		69.00	2.83		
<i>Rank of autistic child:</i>					
First child	ANOVA	75.08	15.99	0.63	0.54
Second child		78.21	10.55		
Third child		73.44	8.68		

Level of significance <0.05.

Table (5): Correlation between adaptive behavior skills & quality of life.

Adaptive behavior skills	r	p
Physical well being	.32	.031
Emotional well being	.03	.03
Self Esteem	.55	0.001
Family	.04	.04
Social contacts	.42	.004
School	.52	0.001
Quality of life	.3	.035

Discussion

Regarding demographic characteristics, current study reveals that the seventy one percent of study subjects were male this was supported by research done by Halladay et al., [20] whose made research about sex and gender differences in autism spectrum disorder and found that autism is more spread in male children than in females by percent of 4:1 male children to female children, this may be due to different submission such as females with ASD are protected against some of the symptoms of ASD (often called the 'female protective effect' or FPE) [21] under this theory, a higher rate of ASD risk factors should be observed in the average affected female compared to their affected male counterparts; these additional risk factors are required for the female to surpass the higher clinical or diagnostic threshold imparted by the FPE. The FPE has been attributed in other disorders with a strong sex bias, including clubfoot [22].

The current study reveals that sixty percent aged between 6-8 years, this reveal that age categories is increased in younger group and can be explained by assumption of increased in mortality rate in autistic children and expected life expectancy to 10 years and the rate of survival is decreased over years, this was supported by Pickett, et al., whose studied the cause of mortality in autistic children and conclude that autistic children are exposed to a many risks that decrease the rate of survival with advanced age because of that one-third of the children with autism also had epilepsy, and co-morbidity data revealed a higher than expected rate of mortality in individuals with both autism and epilepsy than for individuals with autism alone [23].

Also the current study results showed that the majority of autistic children had severe deficit adaptive level as this can be as a result of the decrease in age of the participant group and as a result of the nature of autism as loss of social and adaptive function across life span this result was supported by Fenton et al., who perform research about Vineland adaptive behavior profiles in children with autism and moderate to severe developmental delay and found that majority of Vinland children with autism showed sever maladaptive behavior regarding social and environmental conditions [24], another research done by Anderson, et al., who also studied patterns of growth in adaptive social abilities among children with autism spectrum disorders research has shown that, whatever their overall level of functioning, both children and adults with ASD tend to have more pronounced

impairments in adaptive social skills (from participating in social activities with friends to knowing proper table manners to following community or school rules) relative to other key areas of development such as communication and more general self-help skills [25].

In contrast results shown that there were no children had adequate, moderate high or high adaptive level, this is due to the nature of autism of losing the ability to cope with demands of adaptation with demands of daily living also because with interference with social stigma of having a child with autism in a family this hinder the adaptation with the surrounding environment also physical barriers accompanied with autism, Individual, social, and community barriers to Physical Activity (PA) experienced by children with Autism Spectrum Disorder (ASD) make PA participation more difficult and may contribute to increased screen [25], also this result of lower adaptive level found by research that studied the role of adaptive behavior in autism spectrum disorders: Implications for functional outcome made by Anderson et al., whose found that the relationship between adaptive functioning and autism symptomatology was examined in 1,089 verbal youths with ASD examining results on Vineland-II, IQ, and measures of ASD severity. Strong positive relationships were found between Vineland subscales and IQ. Vineland Composite was negatively associated with age. IQ accounted a significant amount of the variance in overall adaptive skills (55%) beyond age and ASD severity. Individuals with ASD demonstrated significant adaptive deficits and negligible associations were found between the level of autism symptomatology and adaptive behavior. The results indicate that IQ is a strong predictor of adaptive behavior, the gap between IQ and adaptive impairments decreases in lower functioning individuals with ASD, and older individuals have a greater gap between IQ and adaptive skills [25].

As regard to the distribution of quality of life of autistic children, current study showed that there is a variation in its items it is divided into six dimensions: Physical well-being, emotional well-being, self-esteem, family, social contacts and everyday functioning (school).

As regard quality of life (physical wellbeing) the current study results revealed that the mothers answers regarded the question that (my child felt ill my child had a headache or tummy-ache) represented as the highest score of never this represent that the autistic child hasn't experience feeling headache this results was opposed by a research

that study headaches in patients with autism spectrum disorder by Anderson et al., whose found that ASD patients, despite being known to have indifference to pain, can experience headaches; with migraine being the most common headache type in these patients referred in our neurology clinic [26].

Also, the mothers of the study subjects reported in "my child felt strong and full of energy" this showed that twenty seven percent has all the time experience this is explained by a number of testable claims follow from this assumption. First, the powerful should have more autistic traits than others-which they do appear to have. Among other things, powerful people, and those with many autistic traits, tend to prefer solitary activities and are often aloof. Moreover, they are often rigid and socially insensitive, low on empathy and with low scores on the trait of agreeableness-and as a rule they do not have many friends [27].

As regard to emotional wellbeing the current study showed that most child's experienced high level of had fun and laughed a lot this is explained by a yeast overgrowth in the gastrointestinal tract. Yeast are little alcohol and toxin factories and can really get the giggles going. Why are children with ASD so yeasty? Research indicates their immune systems may be imbalanced, which makes them more susceptible. Also phenolic foods, phenols are natural compounds found in some of your child's favorite foods. If your child has dark, smudgy under eye circles and inappropriate giggling, especially at night, he or she may have a phenol overload. Foods that are high in phenols are strawberries and apples, red grapes, bananas, oranges, peaches, peppers and chocolate. Favorites such as ketchup and tomato sauce are loaded with phenols. Children seem to target the foods they are the most sensitive to [27].

As regarded to self-esteem results showed that low level of self-esteem among child's with autism, Anxiety and poor self-esteem are common concerns in clinical samples of children with Autism Spectrum Disorders (ASD). Anxiety may worsen during adolescence, as young people face an increasingly complex social milieu and often become more aware of their differences and interpersonal difficulties. This review summarizes the state of research on the prevalence, phenomenology, and treatment of anxiety in youth with autism and related conditions such as Asperger's disorder [28], also in a research which studied psychiatric and psychosocial problems in adults with normal-intelligence autism spectrum disorder, and found

that core autistic symptoms were highly prevalent in all ASD subgroups. Though AD subjects had the most pervasive problems, restrictions in non-verbal communication were common across all three subgroups and, contrary to current DSM criteria, so were verbal communication deficits. Lifetime psychiatric axis I comorbidity was very common, most notably mood and anxiety disorders, but also ADHD and psychotic disorders. The frequency of these diagnoses did not differ between the ASD subgroups or between males and females. Antisocial personality disorder and substance abuse were more common in the PDD NOS group. Of all subjects, few led an independent life and very few had ever had a long-term relationship [29].

As regard to social contacts results showed that more than half of the study sample showed social withdrawal and doing activity alone not tends to share others in activity, this is explained that the most striking feature of autism is social disconnection. People with autism may appear neither to be interested in nor able to “read” the social world. It is as though they are blind to the boisterous, complicated, emotionally loaded give-and-take of human interaction, Autism Spectrum Conditions are associated with difficulties in core social communication and social interaction and comorbid psychopathology. These problems are often exacerbated in middle childhood and adolescence owing to the increased complex social milieu for children on the spectrum [30].

Current study reveal that the mean score of quality of life is 41.8 with standard deviation ± 11.51 SD which reveals that more than third quarters experience this results is contradicted with a study made by Moyal, et al., whose studied quality of life in children and adolescents with autism spectrum disorders and reported that “almost all children with ASD have deficits in adaptive skills, many have intellectual disability, and others have co-occurring psychiatric disorders or symptoms. Thus, this complex disorder has shown to have a substantial impact on patients' Quality of Life (QOL) and that of their families. Medication treatment is considered by clinicians and families to address problems with functioning due to psychiatric problems, and, as such, one-third of children and adolescents with ASD take at least one psychotropic medication and many use complementary and alternative medicine. This paper reviews what is known about the benefits and risks of psychotropic medications on the QOL of children with ASD” [31].

Also this study was contradicted with a study made by van Heijst & Geurts whose perform a met analysis meta-analysis included 10 studies (published between 2004 and 2012) with a combined sample size of 486 people with autism and 17,776 controls. Second, as there were no studies on quality of life of the elderly with autism, we conducted an empirical study on quality of life of the elderly (age range 53-83) with autism (N=24) and without autism (N=24). The meta-analysis showed that quality of life is lower for people with autism compared to people without autism, and that the mean effect is large (Cohen's $d=-0.96$) [32].

Current study reveals that low significant correlation between gender and quality of life this may not have a significant relation because sex difference may has no role in development of experiencing quality of life, also there is low significant correlation between age and quality of life this study was agreed with a study made by Huan & Ling who studied quality of life of children with ASD and examined Paediatric Quality of Life (PQOL) of autistic children, from a multidimensional perspective. The proposed model was based on the Cross-sectional survey, with physiological function, emotional function, social function, and school performance as components. This study aimed to evaluate the validity of existing QoL questionnaires for use with children with ASD aged 8-12 years. Method: 200 autistic children (male:118, female:82; 2~4 years old:80, 5~7 year old:87, 8~12 years old:33) and 120 normal children (control group) are brought into this study. Separate path analyses were performed to evaluate models of QOL and intelligent evaluation, and found that the test group had lower scores on the PedsQL4.0 universality core scale, in comparison with the control group. Behaviour problems had a negative indirect effect on community adaptation, mental health and school performance and a lower intelligence-related quality of life for children with autistic disorder and clinically significant autistic symptoms in comparison with children and fewer symptoms [33].

Current study reveals that there is highly significant correlation between adaptive behavior skills self esteem and quality of life of autistic childs, this results concurrent with a study made by Shipman, et al., who studied quality of life in adolescents with autism spectrum disorders: Reliability and validity of self-reports and found that Adolescent self-reports of QOL demonstrated internal reliability and concurrent validity. Self-reports on the pediatric quality of life inventory demonstrated moderate to large positive correla-

tions with a measure of self-esteem and moderate to large negative correlations with measures of anxiety and mood. Concurrent validity with parent proxy reports fell within the range of expected values based on past studies of inter-rater reliability for QOL, with parents of adolescents reporting lower QOL when compared with adolescent reports. Adolescents reported QOL below the population mean for all domains [34].

Also current study showed highly strong significant correlation between adaptive behavior skills school and quality of life of autistic child, this skill in the school Social skills will help your child with Autism Spectrum Disorder (ASD) know how to act in different social situations-from talking to her grandparents when they visit to playing with friends at school. Social skills can help your child make friends, learn from others and develop hobbies and interests. They can also help with family relationships and give your child a sense of belonging. And good social skills can improve your child's mental health and overall quality of life. This results was agreed with a study made by Fulton, Eapen, AĖernAĖec, Walter, & Rogers who studied reducing maladaptive behaviors in preschool-aged children with autism spectrum disorder using the early start denver model and found that the level of maladaptive behavior of 38 children with ASD was rated using an observation-based measure on three occasions during the intervention: On entry, 12 weeks post-entry, and on exit (post-intervention) over an average treatment duration of 11.8 months. Significant reductions were found in children's maladaptive behaviors over the course of the intervention, with 68% of children showing a treatment response by 12 weeks and 79% on exit [35].

Also showed low significant correlation between adaptive behavior skills.

Emotional wellbeing and quality of life of autistic child this study agreed with a study made by Coverdale & Long who studied emotional wellbeing and mental health in young autistic people and found that many young people with an Autism Spectrum Disorder (ASD) anxiety permeates their daily life. Would be confused and extremely anxious if we experienced difficulties with social life.

Conclusion:

From all findings this study showed that the quality of life of autistic children is affected by their adaptive behavior skills so that future studies should develop adaptive behavior skills of autistic children to improve their quality of life.

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مهارات السلوك التكيفي وجودة الحياة لدى أطفال التوحد

يعتبر الإهتمام بالأطفال في أى مجتمع إهتماماً بمستقبل هذا المجتمع بأسره، ويقاس مدى تقدم المجتمعات ورفيها بمدى إهتمامها بالأطفال والعناية بهم ودراسة مشكلاتهم والعمل على حلها. ولذا إهتمت العديد من الدراسات الحديثة بالأطفال ذوي الإحتياجات الخاصة وبخاصة الطفل التوحدي في السنوات الأخيرة حتى أننا نجد أغلب دوريات علم النفس في الخارج أخذت في إعداد مقالات متخصصة عن هذه الفئة من الأطفال، ولا شك أن الإزدياد العالمي لهذه النوعية من الأطفال قد أدى إلى ضرورة عمل دراسات متخصصة وسريعة لمعرفة طرق العلاج وإمكانية عمل برامج تربوية علاجية لمساعدة الآباء والمشرفين والمعلمين في تعديل سلوكهم.

وصف تفصيلي للدراسة: تم إختيار جميع مقدمي الرعاية لأطفال سن المدرسة (٦-١٢ سنة) والذين يحضرون إلى معهد الدراسات العليا للطفولة بجامعة عين شمس والموافقين على الإشتراك في هذه الدراسة خلال ٦ أشهر حيث تم مقابلة مقدمي الرعاية لأطفال المشاركين في هذه الدراسة خلال هذه الفترة وقام كل منهم بالآتي:

- ملء إستمارة البيانات الشخصية والمعلومات الطبية لكل طفل وذلك مرة واحدة فقط بواسطة مقدم الرعاية للطفل.
- ملء مقياس فاينلايد للسلوك التكيفي للطفل وذلك مرة واحدة بواسطة مقدم الرعاية للطفل.
- ملء مقياس كندلر لجودة الحياة للأطفال وذلك مرة واحدة بواسطة مقدم الرعاية للطفل.

الهدف النهائي للبحث هو دراسة العلاقة بين مهارات السلوك التكيفي ونوعية الحياة لدى الأطفال المصابين بالتوحد.

النتيجة: هذه الدراسة إلى أن الأطفال المصابين بالتوحد يعانون من عجز حاد في مهارات السلوك التكيفي ونوعية الحياة، كما أن نوعية حياة الأطفال المصابين بالتوحد تتأثر بشكل كبير بمهارات السلوك التكيفي لهؤلاء الأطفال.