



Research Article

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The Effectiveness of a Training Program to Develop Some Self-Care Skills for Children with ASD

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Abstract

The objective of the research was to assess the efficacy of a training program designed to improve the self-care skills of children with ASD. As well as gaining knowledge of the degree to which the program is beneficial in supporting children with ASD in the development of skills for self-care after participating in the program for one month. The study sample, which comprised 42 children with ASD, had an experimental group of 21 children and a control group of 21 children. The experimental group improved statistically significantly more than the control group in terms of post-measurement self-care skill mean scores. According to the findings of the study, the experiment group's mean scores on the self-care skills test revealed statistically significant gains both before and after the implementation of the program, lending credence to the dimensional evaluation. In addition, neither the post-test nor the follow-up assessments revealed any statistically significant changes in the level of self-care skills possessed by the participants in the experimental group.

Keywords: Training program, Self-care skills, Children with ASD

1. Introduction

One of the major issues that societies face is the care of the handicapped and others with special needs (Botha et al., 2021). There will always be a sizable percentage of persons in society who have one or more impairments that make it harder for them to perform their social tasks in an acceptable way compared to average people (Artoni et al., 2018). Partington et al. (2018) mentioned that this group of people had particular demands, which were also accompanied by a variance in cultural perspectives because they received a variety of transactions that differed according to the philosophies of each country. This resulted in the treatment of this group including acts of cruelty and disdain, efforts to eradicate them, as well as actions of compassion and care in an effort to defend the concept of equal opportunity for everyone (Lapshina, 2019).

The twentieth century saw significant advancements in caring for individuals with disabilities on a worldwide scale, as seen by the several charters and pieces of legislation passed by the United Nations and nations (Akhmetzyanova & Artemieva, 2020). The most prominent of these was

designating 1981 as the International Year for the Disabled. Academics and charitable organizations collaborated to rehabilitate the handicapped and help them develop some of their skills at a period when nations were aggressively developing their programs for the disabled (Fahmy, 2022). Autism is a developmental condition and a handicap that is not uncommon and represents a proportion that cannot be disregarded, but it has gotten little attention at the scientific level in developing nations and the third world, while we see a rising interest in developed countries (Belyaeva, 2020). Leo-Kanner (1943) is considered the first to refer to autism as a disorder that occurs in childhood. Many different names have been used for this disability, such as autism, rumination, self-blocking (self-preoccupation), self-psychosis, childhood autosomal schizophrenia, and infantile closure (Vanegas, 2019). The use of these many different names is due to the ambiguity and complexity of the diagnosis, as the diagnosis is one of the most important difficulties facing autism disability due to its similarity with many categories (Below et al., 2021). Most researchers interested in autism point to the issue of similarity between autistic behavior and the behavior of other disorders such as mental and hearing disabilities, and communication and attention disorders (Mukayetova-Ladinska et al., 2018).

Despite all this development in diagnosing autism, modern treatment methods, and advanced medical devices, the main reason behind this disorder is still unknown (Uzuegbunam et al., 2018). Some studies have focused on biological causes, while others have focused on environmental, social, and psychological factors. Genetics, maternal health, and environmental factors at delivery have all been implicated in various research (Tran et al., 2020). However, the root of the disorder that is autism has not been identified. Research is needed to determine which of these factors, or their interaction, is responsible for the condition. It should be mentioned that this group experiences a variety of issues, chief among which is the inability to care for oneself, or to carry out tasks necessary for day-to-day living. In the sense of the autistic child's limitations and his inability to engage in many behaviors that his classmates and other kids can (Stark & Lindo, 2022). When a kid cannot care for or defend himself, feed himself, put on and take off clothing, deal with the bathroom, or take care of himself, as well as when determining the hazards to which he is exposed (Haebig et al., 2020). According to data from the University of Cambridge's Autism Center, there are now (75) instances of autism for every (10,000) people between the ages of 5 and 11 years (Lotfizadeh et al., 2018).

According to some experts, it's crucial to teach and help autistic children learn self-care skills since doing so facilitates their integration and acceptance among their peers (Hwang & Lee, 2022). In certain extreme situations, it was considered more important than training academic skills, as parents avoided the embarrassment that their son might cause them in front of others on the one hand, and enabled the autistic child to rely on himself in the future of his life on the other hand (Laribi, 2022). Some mothers of impaired children often care for their disabled children in ways that don't help them develop their abilities in self-care (Choi et al., 2018). As a result, these mothers need assistance from experts in a variety of professions who can adapt, develop, and enhance the self-care activities of eating, drinking, dressing and undressing, using the restroom, and maintaining personal hygiene (Rega et al., 2018). The application of each of these areas for each child depends on his age and level of ability (Iverson, 2018).

From the foregoing, it becomes clear that there should be training programs to develop self-care skills for autistic children, due to the scarcity of training programs that attempt to develop self-care skills. As a result, the research aims to create a training program to help people learn how to take care of themselves and use a variety of approaches and strategies that may effectively change autistic children's behavior.

2. Research Questions

The purpose of this study is to address the following questions in light of the debate above:

1. Do the results of the experimental and control groups on a test of self-care skills significantly change after utilizing the program?
2. Are there substantial differences in the experimental group's self-care skills before and after

- the program's implementation?
3. Is there a statistically significant difference between post-and follow-up test scores on measuring self-care skills?

3. Literature Review

As children with autism suffer from a widespread developmental problem that affects many elements of their development and causes harmony and self-closure, autism is one of the specific groups whose attention and care have expanded dramatically in recent years (LeBarton & Landa, 2019). According to the American Act on Special Education and the Education of Disabled Persons, autism has become one of the most difficult childhood developmental impairments, and as awareness of the condition has increased, it is now recognized as a distinct disability in special education (Dyer, 2022). Autism is recognized as a prevalent, developmental condition. In reality, it is a type of mental disability that makes it hard for the child to think, and his level of intelligence is somewhere between mild and moderate (Hillier et al., 2018). Most all experts and scientists who are engaged in this subject agree that autism is a complicated mental condition. This reasoning leads to the conclusion that it is a dual mental and social handicap (Holmes, 2022).

There are several definitions of autism, and each of these definitions refers to a specific group that has the same traits. Before Leo Kanner defined autism as a disorder that manifests from birth and whose symptoms become obvious after the age of two, such as the inability to communicate with others (verbally and through signs, hints, or expressions), repeating some words, repetitive stereotypical behavior, there were no definitive definitions of autism (Simón et al., 2022). Despite their resistance to change in their surroundings, weak imagination, inability to connect ideas and objects, and tendency to sometimes chuckle and giddily for no apparent reason, they have a normal memory (Odom et al., 2021). This neurodevelopmental disorder has a significant impact on a person's ability to communicate, interact socially, and use their imagination (Ohara et al., 2019). Studenka et al. (2017) state that autism is a complex, lifelong developmental disease that has an effect on social interaction beginning throughout a child's first 3 years of life. As autism is a spectrum disorder, its effects vary depending on the person experiencing them. Some autistic persons may struggle with learning, others may be capable and have IQs that are average or higher. In (20.15%) of autistic children, the illness may progress to epilepsy, which often happens during puberty. It has been predicted that (50%) of autistic children remain non-verbal throughout their lives (Paraskevi, 2021). The World Health Organization (WHO) defines autism as a developmental defect that appears during a child's first three years of life and is brought on by issues with the maturation of the (central) nervous system and its effect on brain function. An autistic child's life is marked by a progression of difficulties beginning with mild brain abnormalities and continuing through language, social, and behavioral issues (Ressa, 2022). The Gulf Society believes that autism is a neurodevelopmental disorder that results from a defect in brain functions that appears as a developmental disability in a child during the first three years of life, its main signs appear in the delay in the development of verbal and non-verbal skills, behavioral disorder, as well as social interaction and communication disorder (Abd Aljalil, 2018).

According to research done in England and the United States, the condition affects (4-5) children per 10,000, but research done in other countries indicates a prevalence rate of fewer than 5 instances per 10,000. (Colombo-Dougovito & Block, 2019). With a prevalence incidence between 10 and 17 percent, the United States government has recognized autism as a public health issue (Ruggeri et al., 2019). The rising prevalence of autism disorder may be traced to the rise in the public consciousness of the illness and the improvement of diagnostic criteria for the disorder (Ruggeri et al., 2019). There are a number of genetic and environmental variables at play that contribute to this variation. Autism is considered one of the most challenging disabilities due to its impact on a person's behavior and the limited ability it often gives those with the disorder to normalize, learn, train, prepare professionally, acquire even a modest level of learning ability, become socially and

economically independent, and protect themselves (Licari et al., 2020). When a child has trouble communicating and understanding others, it has a profound effect on his development. The child's interactions with his physical surroundings are also impaired because of this deficiency (Hollis et al., 2017).

Scientists are trying to establish an explanation for this complicated condition because autistic children display such a broad variety of symptoms and since prior ideas concerning the disorder's origins have been substantially invalidated by later research (Koçak et al., 2021). Kanner proposed a theory of autism's origins in 1943, suggesting that inadequate maternal care, sensory deprivation, a failure to satisfy the child's needs, and harsh parenting all had a role (Chiva-Bartoll et al., 2021). This notion stayed around for a long time. The effects of psychological factors, deprivation, or parental upbringing (the style of rejection, neglect, and prejudice) on autistic and normally developing children were not shown to be significantly different in later scientific studies (Hamm & Yun, 2019).

One problem is that autism is often misdiagnosed because of the intricacy of the illness and the scarcity of trained professionals who can make a proper diagnosis (Maenner et al., 2020). Diagnosis of this disorder requires close observation of the children's behavior and communication skills in contrast to usually growing youngsters (Bo et al., 2019). From this point, interdisciplinary research teams are assembled to establish a definitive diagnosis. Professionals from the fields of neurology, psychology, speech pathology, special education, social work, occupational therapy, and pediatric autism spectrum disorder are all represented here (Habib et al., 2018).

Training in self-care focuses on teaching the kid to take care of himself, from bathing and dressing to eating and toileting (Bayer et al., 2019). The ability to take on these responsibilities gives the child a sense of independence in his family life (Duhanyan et al., 2019). Learning to take care of one's own needs is a requirement of several academic programs, therefore developing these skills is also important for a child's success in school (Duran & Arslan, 2021). Shteyat and Al-Oweidi, (2018), mentioned that child's success in school to be accomplished by focusing on the following:

1. Helping the autistic child to perform his daily life skills naturally.
2. Parents and others interested in special education are forming volunteer committees to assist autistic children to discover joint groups where they may interact organically with typically developing peers and learn life and self-care skills.
3. Advocacy planning for the passage of laws and legislation protecting the rights of individuals with autism.
4. Helping autistic families accept their role as autistic families.
5. Group and one-on-one training for autistic children to help in the development and delivery of rehabilitative services for those with autism.

According to Hong et al. (2017), an autistic child with self-care abilities is able to dress and undress themselves, feed themselves, and protect themselves from harm. Washing, grooming, eating, and looking out for one's own safety and security are all examples of self-care tasks (Pesau et al., 2020). Skills in self-care include the ability to dress oneself, feed oneself, use utensils, bathe, comb hair, and maintain oral hygiene (Wertalik & Kubina, 2017). The numerous facets of self-care are broken down below, along with estimates of their relative complexity and suggestions for training.

Difficulties with food and drink: A lack of interest in eating and drinking is a typical issue in families with autistic children. He does this in a variety of ways, such as messing with the food he's given, misusing the equipment provided, and even not utilizing a chair while he eats (Boutain et al., 2020). Excessive mood is a problem in the realm of food and drink, manifesting itself in stubbornness about eating a certain dish or insistence that the food always is presented and prepared in the same manner at the table. This might be a sign of a child's obsessive tendencies, and the child's stubbornness in maintaining the habit could be reinforced by the parents' fear that any attempt to change the child's favored technique of eating would result in a tantrum (Al-Khateeb, 2021). It is vital to attempt to improve the child's eating and drinking habits in order to provide better flexibility since, despite the parents' arguments, there is a lack of flexibility in the provision and arrangement of food that cannot be satisfied in all circumstances and at all times (Mounzer & Stenhoff, 2022). Some

parents worry that it won't be feasible for their autistic child's family to dine out because of the autistic child's poor table manners, antisocial conduct when they sit at the table food, and unpredictable behavior (Hakobyan & Harutyunyan, 2021).

Difficulties in putting on and taking off clothes: Getting dressed may be challenging due to the need of donning and removing garments properly. At a later time, we may call the child's attention to the card that is attached to the clothing and shows the inside and outside of the garment (Beheshti et al., 2022). Additionally, it is common for autistic children to lack knowledge of the proper attire for the current atmosphere. In either case, the child needs some kind of monitoring and support without being bothered, thus you could see him wearing thick wear in the summer or light cotton garments in the cold. Although a child's ability to dress himself may be within his range, he may be uncooperative (Kabasakal et al., 2021). As the manual skill of certain activities is messy and useless when it comes to wearing a shirt or tightening buttons, then parents are forced to do the task with their elderly autistic child, and sometimes they are driven to despair so that the child can go to school on time (Al-Khateeb, 2021).

Difficulties with excretion: The inability to control excretion is a major problem for some autistic children. This calls for a thorough assessment to determine the reasons for bedwetting or the inability to regulate the excretion of stools, and the reason for this may be the delay in gaining the capacity to control the excretion. In these situations, it is advised to step up bathroom training (Mounzer & Stenhoff, 2022). However, it has been observed that a small number of autistic children have developed the habit of polluting their faces when using the restroom. This conduct is unquestionably serious and requires immediate intervention using behavioral techniques that reward the kid for not polluting his face (Hakobyan & Harutyunyan, 2021).

Difficulties with personal hygiene: Personal hygiene includes washing hands and face, drying hands and face with a towel, brushing teeth, combing hair, and applying perfume. The aim of personal hygiene is to train the child to keep himself neat and tidy and to provide a basis for doing so independently (Beheshti et al., 2022).

Because people with ASD often struggle with adaptation, forming connections with others, picking up new skills, and finding it difficult to live alone (Hong et al., 2017). Therefore, it is thought that a multidisciplinary approach might help them live better lives and participate in everyday activities (Pesau et al., 2020). People with physical and mental impairments should be aware that training programs provide a method of intervention that recovers their ability to work and engage in meaningful activities (Tomchek et al., 2016). Therapists think that a person's ability to engage is affected by their own physical, emotional, or cognitive skills, as well as those of the activity and their physical, cultural, social, behavioral, and legal settings (Hakobyan & Harutyunyan, 2021). As a result, training programs aim to improve participants' skills by arranging either the participant themselves, their surroundings, or a combination of the two in order to boost their likelihood of engaging in social activities (Boutain et al., 2020).

Families play a crucial role in assisting young children to acquire and practice skills and self-care routines. Therefore, parents' and caregivers' input into the selection of a rehabilitation intervention for their kid is seen as crucial, and success can be achieved only via collaborative effort. Given the significance of family involvement and effective time management in facilitating skill acquisition and intervention, it is vital to inquire about and evaluate the family's routines and the responsibilities placed on the children. Parents of a child with ASD must strike a delicate balance between assisting their child when necessary and taking over their self-care routines entirely.

4. Previous Studies

Abd Aljalil (2018) created a training program to help autistic children in the Khartoum Area learn basic self-care skills. Additionally, disparities in how certain self-care skills improved in autistic children following the program's applying were found according to gender and age factors. The study used an experimental methodology, with (45) autistic children (4-13) years old from the (Head Estart)

facility Arkwette neighborhood of Khartoum serving as the research population. The pre-post test was administered to sixteen girls and children, making up the sample size. The results demonstrated that the training and development program was successful in helping autistic children gain some self-care abilities. In addition, there were statistically significant differences in some self-care skill improvements in autistic children after applying for the program based on gender (male vs. female), but not on age (there were no statistically significant differences in some self-care skill improvements in autistic children after applying for the program).

Rega et al. (2018) examined how a child with autism spectrum disorder may acquire a self-care skill by using a tablet computer in an intervention based on a video modeling approach. The experimental method used in this study is known as the "A-B-A" design, and it consists of three distinct phases: "baseline" (phase A), "intervention" (phase B), and "baseline" (phase A). The test was placed in the Neapolitan rehabilitation facility in Ottaviano (Italy) over the course of 12 sessions of observation on a single child. A total of 11 right actions throughout 17 phases of the task analysis were recorded in the study data gathered during the experiment's first three baseline sessions (without tablet pc). There are 12 appropriate actions carried out by the individual over 17 measures in the fourth baseline. Without a tablet PC, the youngster has already learned more than half of the skills. Over the course of four intervention sessions (using tablet PCs with movies), we saw 13, 15, and 16 right behaviors out of a possible 17 overall, suggesting that video modeling is having a positive effect. In the fifth session, the number of undesirable behaviors peaked at 17, and by the sixth session, it had dropped back down to 16. Without the imitative stimulus of the video, the child would not have learned new gestures to perform that are effective for good and complete oral hygiene, but he maintains high levels of performance in the inversion baseline, demonstrating that he has learned behaviors that he had not yet acquired in the first baseline. Children have benefited greatly from learning self-care skills via the use of video modeling on a tablet PC in a natural setting.

Asran (2019) demonstrated how a training program helped a sample of kids with autism disorder gain certain self-care skills. Children with autism between the ages of 5-7 made up the research sample. Six children are in the experimental group and six are in the control group, which are randomly separated into two groups for the research sample. The findings showed that, with the exception of the self-safety domain, there are statistically significant changes between the means of the experimental group and the control group in the post-measurement on the self-care skills scale for the experimental group. Additionally, the experimental group's children's mean scores on the self-care skills scale varied statistically significantly between the pre and post-measurements, with the exception of the self-safety domain. Additionally, there are no statistically significant variations in the children in the experimental group's mean scores on the self-care skills scale between the post and follow-up measurements. For the study's sample, there is a correlation between the training program's success and the degree of its influence on the development of self-care abilities.

Elasouly (2020) identified training programs' efficiency in helping social workers learn to self-care skills. Forty male and female social workers from various organizations (world vision, war child, Palestine Red Crescent Society, Gaza Community Mental Health Program, Community Training Center and Crisis Management, and Palestine trauma center) made up the sample. They were randomly assigned to either the Experimental group (who got the training program) or the control group (who did not receive the training program). Positive self-care abilities were significantly different in experimental groups compared to control. This finding demonstrated that the training program was successful in giving the social workers hands-on experience with a variety of techniques. They need our assistance, and we can provide it by assisting them in working more effectively with their customers.

Sezici and Akkaya (2020) performed to investigate how motor development in preschoolers impacts their capacity for independent care. One hundred twenty-six preschoolers, ranging in age from 60 to 72 months, participated in this research. Information was gathered using the Lincoln Oseretsky Motor Development Test and the Self-Care Skills Scale-Teacher Form for Preschoolers (36-72 months). The findings indicated that the length of time a preschooler spent in kindergarten had an

effect on the development of the child's motor and self-care abilities. Furthermore, there was a statistically significant correlation between the kids' motor abilities and their ability to take care of themselves.

Hakobyan and Harutyunyan (2021) investigated how well-informed parents of children with autism spectrum disorder were about services for increasing self-care abilities. This study used a quantitative research methodology. 35 parents of children with autism spectrum disorder participated in a questionnaire survey that was conducted both online and on paper as part of the research. The findings revealed that most parents of autism spectrum disorder (ASD) children (81.8%) have a clear understanding of the services intended to enhance self-care activities and are aware of the value of completing them independently. Only 26.7% of parents wished to seek professional assistance, despite the fact that 6.7% of them believed it was crucial for their kids to be able to undertake self-care tasks on their own. However, choosing rehabilitation programs to improve their children's abilities, being aware of acceptable services, and using proper intervention ways were seen to be essential factors for approving their future independence as adults as parents of children with autism spectrum disorder.

5. Methodology

To evaluate whether or if the training program enhanced the participants' skills to care for themselves, the research used a design that was quasi-experimental. The researcher made the decision to use one of the experimental designs, which included the selection of children at random for a comparison of the experimental and control groups, as well as the taking of pre-and post-test measures and the collecting of data.

1. The 50 children that made up the sample were split equally between two groups based on a random draw (control and experimental).
2. Ascertain if the two groups of children have similar skills to take care of themselves.
3. Isolating the experimental group from the control group and subjecting it to the effects of the independent variable (in this case, the training program).
4. Post-testing to determine the extent to which the inclusion of the independent variable affected both of the groups (the experimental and control).
5. The experimental group is retested once a month to determine whether or not the training program is still having an effect and to determine whether or not the change in the self-care skills is a permanent change or merely a passing trend. This is carried out to make certain that the observed shift in self-care skills is not only a fad.

6. Population and Sample

Children with ASD who get treatment at the Prince Muhammad bin Saud Al Kabeer complex in the Kingdom of Saudi Arabia between the dates of 10/9/2022 and 10/11/2022 were the sample participants in this research. The children included in this research sample were those who fulfilled the criteria listed below.

1. The child should be between the ages of 6 and 15.
2. Ensure that children did not have any disabilities that would limit their capacity to respond or comprehend, such as a hearing impairment.
3. The intellectual level of the child should be ordinary. Using the training program suited for the Saudi environment, this instance has been confirmed. The child also has a problem with self-care skills.

The total number of children who fulfilled the requirements was 42, and they were distributed between two groups of similar size, each consisting of 21 individuals. A subset of participants from each group was selected at random to participate in the training program tailored to the needs of the research. The other group was selected to be the control group, which would not receive the training

program. Throughout the two months of training that the experimental group underwent, each kid participated in a total of 32 sessions, or 16 each month. These sessions were broken up as follows:

7. Research Instrument

In order to reach the objectives of the study, two different types of research instruments were used:

1. The measure of self-care skills: the measure was developed by the researcher using data from past studies on self-care skills in children with ASD. The scale has 40 items that are arranged in a progression from easiest to most demanding activities that test food and drink skills (10 items), putting on and taking off clothes skills (10 items), skills of using the restroom (10 items), and personal hygiene skills (10 items). The scale was used to measure the study sample before, after, and follow-up period.
2. The training program: through a series of sessions designed to execute lessons established by the researcher, the program intends to foster the development of self-care skills in children with ASD who are between the ages of 6 and 15 years old. The program based on the foundations and techniques of behavior modification theories that include a set of skills and practices over a specific period of time in order to develop self-care skills for children with autism, which include food and drink skills, putting on and taking off clothes skills, skills of using the restroom, and personal hygiene skills, as follow:
 - Considering the characteristics of each child.
 - Organizing and arranging any skill before starting to define the role of the researcher, the role of the supervisor, and the role of the autistic child.
 - Follow the steps one after the other in a sequential manner.
 - Using the positive reinforcement process, whether by using material or social reinforcements.
 - Arrangement using natural and realistic tools.
 - Training should be at appropriate times, taking into account the psychological condition of the autistic child.

8. Instrument Validity and Reliability

Two methods were used to verify the validity of the instrument:

1. The validity of the scale instrument is determined by showing it to a group of 10 arbitrators and setting a minimum acceptance rate of 80%.
2. A sample of 14 children with ASD was given the test to see how well it is discriminant validity. Among the (F) values for discriminatory validity, four coefficients were found to be statistically significant (1.63, 4.85, and 6.30).

According to Cronbach's alpha equation, the internal consistency of the instrument was calculated using that method. The instrument's overall reliability coefficient was (0.897), while the reliability values for each of the four dimensions ranged from (0.784-0.879).

9. Data Analysis

After data collection, the mean test scores and standard deviations for the pre-and post-tests were calculated. The effect size was calculated using the Eta square, and it shows how successfully the training program helped children with ASD learn how to take care of themselves. To highlight the differences between two similar samples, Wilcoxon's test, and Z-value were also used.

10. Results and Discussion

The experimental and control groups were guaranteed to have the same self-care skills prior to the training program's implementation, as shown in Table 1.

Table 1: Pre-Measurement

Skill	Group	N	M/R	S/R	U	Z	P
Food and drink skills	Experimental	21	19.70	413.70	230.00	0.952	0.420
	Control	21	23.20	487.20			
Putting on and taking off clothes skills	Experimental	21	20.65	433.65	190.00	0.725	0.520
	Control	21	22.85	479.85			
Skills of using the restroom	Experimental	21	22.40	470.40	195.00	0.540	0.725
	Control	21	20.60	432.60			
Personal hygiene skills	Experimental	21	22.30	468.30	190.00	0.550	0.640
	Control	21	20.50	430.50			
Total	Experimental	21	21.50	451.50	205.00	0.820	0.820
	Control	21	21.80	457.80			

Table 1 shows that there was no statistically significant difference between the two groups in terms of children's pre-test mean scores for their food and drink skills, putting on and taking off clothes skills, skills of using the restroom, and personal hygiene skills.

For clarification on the first question "Do the results of the experimental and control groups on a test of self-care skills significantly change after utilizing the program?". The results are shown in the table below.

Table 2: Post-Measurement

Skill	Group	N	M/ R	S/R	U	Z	P
Food and drink skills	Experimental	21	25.30	531.30	32.00	9.300	0.000
	Control	21	19.50	409.50			
Putting on and taking off clothes skills	Experimental	21	24.60	516.60	51.00	3.850	0.000
	Control	21	18.40	386.40			
Skills of using the restroom	Experimental	21	26.30	552.30	20.00	5.200	0.000
	Control	21	19.75	414.75			
Personal hygiene skills	Experimental	21	24.50	514.50	50.00	3.900	0.000
	Control	21	17.60	369.60			
Total	Experimental	21	25.18	528.78	53.00	3.200	0.000
	Control	21	18.81	381.78			

Table 2 shows that after the post-measurement with the experimental group, there are statistically significant changes in the mean scores of the control and experimental groups on assessments of food and drink skills, putting on and taking off clothes skills, skills of using the restroom, and personal hygiene skills. This implies that the children in the experimental group have excellent self-care skills.

Numerous ASD children have issues and challenges, and many of the ideas that self-care skills need cannot be learned. These kids lack the abilities to assist them with eating and drinking, donning and removing garments, using the toilet, and maintaining personal hygiene. Self-care techniques have been shown to be beneficial in identifying childhood issues that have existed for a long time, particularly in children who have difficulty expressing their issues and who are hard to develop confidence. Hence, the development of skills in self-care has become a means through which children with special needs may experience feelings of competence, efficiency, pleasure, and contentment with themselves. Additionally, the capacity to comprehend the value of self-care encourages children with

ASD to be independent thanks to their self-care abilities. This is in line with studies by Abd Aljalil (2018), Rega et al. (2018), Asran (2019), Elasouly (2020), Sezici and Akkaya (2020), and Hakobyan and Harutyunyan (2021).

To respond to the second question “Are there substantial differences in the experimental group’s self-care skills before and after the program’s implementation?” The results are shown in the following table.

Table 3: Pre and Post-Measurement

Skill	Pr/Po	N	M/R	S/R	Z	P
Food and drink skills	negative rank	3				
	positive rank	18	2.50	7.50	4.755	0.000
	ties	0	12.50	225.00		
total	21					
Putting on and taking off clothes skills	negative rank	3				
	positive rank	18	2.50	7.50	4.910	0.000
	ties	0	12.50	225.00		
total	21					
Skills of using the restroom	negative rank	3				
	positive rank	18	2.50	7.50	4.924	0.000
	ties	0	12.50	225.00		
total	21					
Personal hygiene skills	negative rank	3				
	positive rank	18	2.50	7.50	4.980	0.000
	ties	0	12.50	225.00		
total	21					
Total	negative rank	3				
	positive rank	18	2.50	7.50	4.825	0.000
	ties	0	12.50	225.00		
total	21					

According to Table 3, the experimental groups mean scores for food and drink skills, putting on and taking off clothes skills, skills of using the restroom, personal hygiene skills, and the overall post-measurement score all differ statistically significantly from one another. During the post-measurement, the children who were part of the experimental group shown an improvement in their skill to care for themselves.

This finding is explained by the researcher's assertion that it is crucial for autistic children to learn self-care skills since doing so facilitates their integration with typical peers and fosters their acceptance. In certain extreme circumstances, it was seen to be more crucial than academic skill development since the parents didn't have to worry about their son embarrassing them in front of others, and, on the other, the autistic kid was able to depend on himself in the future of his next life. Additionally, the training program has given them the independence to attend to their fundamental daily requirements. This gave them the chance to become independent in their home lives and gave them the skills needed to do well in academic settings since certain school programs call for students to be capable of taking care of their own needs. This is in line with studies by Abd Aljalil (2018), Rega et al. (2018), Asran (2019), Elasouly (2020), Sezici and Akkaya (2020), and Hakobyan and Harutyunyan (2021), where it was shown that children diagnosed with ASD might benefit from participating in a training program.

The final question, "Is there a statistically significant difference between post-and follow-up test scores on measuring self-care skills?" must be addressed in order to provide a response. The results are shown in the following table.

Table 4: Post and Follow-up

Skill	Po/ Foll	N	M/R	S/R	Z	P
Food and drink skills	negative rank	3				
	positive rank	0	3.50	10.50	1.925	0.073
	ties	18	0.00	0.00		
	total	21				
Putting on and taking off clothes skills	negative rank	15				
	positive rank	3	9.50	142.50	1.721	0.125
	ties	3	13.60	40.8		
	total	21				
Skills of using the restroom	negative rank	3				
	positive rank	5	4.30	12.90	0.925	0.425
	ties	13	4.30	21.50		
	total	21				
Personal hygiene skills	negative rank	3				
	positive rank	6	2.50	7.50	0.935	0.455
	ties	12	3.60	21.60		
	total	21				
Total	negative rank	6				
	positive rank	3	4.20	25.20	1.020	0.335
	ties	12	4.30	12.90		
	total	21				

Table 4 demonstrates that there are no statistically significant differences in the mean scores for the experimental group between the post-test and follow-up assessments. This demonstrates the program's persistence in its effectiveness throughout the course of the follow-up period and the absence of recurrence after the program. This result may be explained in light of the kids' increased ability to take care of themselves and their ongoing participation in program activities.

The program's effects, bolstered by regular in-class assessments and assigned homework were maintained into the subsequent monitoring period. This exemplifies how cooperative they were and how much they valued the training opportunities provided by this program. One of the reasons that can be attributed to the persistence of the effect of the program is the researcher's allocation of some sessions that aimed at retraining autistic children on self-care skills as a matter of review, which confirmed the survival of the effect of education for a longer period. This may also be due to the family's conviction of the role of the program in strengthening the desired behaviors of autistic children, as the mothers of autistic children were encouraged to repeat the tasks they were trained on during the program sessions at home, which contributed to the repetition of the desired behavior and led to the survival of the effect of the program in the longer term.

11. Conclusion

This research provides evidence that training programs may assist children with ASD in developing self-care skills. In addition, the findings show that program designed particularly for this purpose may be more successful than standard programs at increasing these children's levels of skill mastery. The results of this research demonstrated how the training program helps kids with ASD grow up with a firm understanding of the importance of good self-care skills. The program produces an autistic child who is able to rely on himself in the future of his next life, which serves as the foundation for drawing the conclusion. They now have the freedom to take care of their basic daily needs thanks to the training program. Since certain school programs need children to be able to take care of their own needs, this allowed them the opportunity to grow independent in their home life and taught them the skills required to do well in academic settings.

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