

Effectiveness of Recreational Play Program on Reducing Social Withdrawal and Stereotype Behavior among Children with Autism

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Abstract

Background: Autism spectrum disorders is the most common and fast-growing developmental disability with unclearly identified psychopathology. Participation in recreation activities is an important contributor to quality of life and wellbeing of autism children. **Aim of the study:** to evaluate the effectiveness of a recreational play program on reducing social withdrawal and stereotype behavior among children with autism. **Design:** A quasi-experimental design was utilized in this study. **Setting:** The study was conducted at outpatient clinic at psychiatric health hospital at Benha City, Kaluobia Governorate. **Sample:** A purposive sample consisting of 60 children with autism **Tools:** In this study four tools were used for data collection: Tool (I): A semi-structured interviewing questionnaire included socio-demographic data and knowledge about recreational play activities. Tool (II) Social withdrawal behavior scale for children with autism. Tool (III): Stereotype behavior scale for children with autism. **Results:** There was highly statistically significant difference for the studied children's total social withdrawal behavior pre and post program implementation and there was highly statistically significant difference for studied children's total stereotype behavior pre and post program implementation and there was high and there was correlation between the total score of the knowledge about recreational activities and the total scores of social withdrawal behavior and total score of the stereotype behavior among autistic children pre and post program implementation. **Conclusion:** Recreational play program had positive effect on reducing social withdrawal and stereotype behavior and there was improvement in the total scores of social withdrawal and stereotype behavior of autism children **Recommendations:** Application of the recreational play activities as an educational strategy due to its importance and provide children with different desired behaviors.

Key words: Children with autism, Recreational play program, social withdrawal, Stereotype behavior.

Introduction

Autism Spectrum Disorder (ASD) is a heterogeneous neurodevelopmental disorder characterized by impaired social communication, repetitive behaviors, highly restricted interests and abnormal sensory reactions. The prevalence of ASD has gradually increased and has become a serious

global public health issue (Maenner et al., 2021).

Difficulties with social interactions are some of the most noticeable components of ASD. These characteristics are so prominent that caregivers often report. Their observation of these difficulties led them to seek professional services for autistic children (O'Guinn, 2022)

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Repeated or restricted interests are another key component of ASD. Repeated behaviors may be vocal, physical, routine-based or a mixture of these three. For example, an individual may engage in repeated vocal behavior by emitting the same word, phrase or sound in a nonfunctional way (**Centres for Disease Control and Prevention CDC,2021**).

Recreational playing may improve autistic children's social and emotional skills. It helps them think in different ways, increase their language or communication skills, expand the ways they play with recreational toys and communicate with other people. Recreational playing can allow parents to take an active role in their PDD child's growth and development. Recreation playing may be taught to parents and over time and they can become therapist for their autistic children and build a strong relationship with autistic children (**Swarnakumari, &Sankar,2021**).

Nurses can become a change agents. They help the autistic children's families to find out early sign and symptoms of autism and support these families (**Dunlap et al.,2020**).

Significance of the study

The Prevalence of ASD mostly diagnosed at early childhood has been increasing year by year. The report published by Centers for Disease Control and Prevention (CDC) indicated that 1 out of 54 children are born with the risk of ASD (**Maenner et al., 2020**).

The most recent statistics indicated that 1 in 59 children in the United States is diagnosed with ASD (**Baio et al.,2018**) and the overall prevalence in Asia, Europe, and North America combined come to 1% to 2% (**Centers for Disease Control and Prevention,2021**).

In Egypt, the prevalence of ASD come to 1% Or about 800,000 patients (**Elfagr,2020**).

Aim of the study

This study aimed was to evaluate the effectiveness of a recreational play program on reducing social withdrawal and stereotype behavior among children with autism.

Hypothesis of the study:

The recreational play program had a positive effect on reducing social withdrawal and stereotype behavior among children with autism

Subject and methods

Research design

A quasi-experimental research design was used in this study.

Research setting

This study was conducted at the out-patient child psychiatric clinic at out-patient child psychiatric clinic at the Psychiatric Mental Health Hospital at Benha city, Qaluobia Governorate which is affiliated to general secretariat of mental health. It has two building six department (5 female and 1 male), with a capacity of 219 beds. Also, there are six outpatient clinics include two psychiatric clinic, addiction clinic, children clinic, epilepsy clinic and old age clinic. Children clinic works on Monday and Wednesday every week from 9 am to 12 pm.

Sampling

A purposive sample consisting of 60 autism children who fulfilled the following criteria: age (6-12) years, mild level of autism, Free from any other disabilities and no mental retardation.

Tools of data collection

In order to achieve the aim of the study the following tools were being used:

Tool one: Semi-Structured Interview Questionnaire Sheet:

Structured interview questionnaire was developed by investigators based on scientific review of literature which consist of two parts:

Part I: It was concerned with the characteristics of autistic children. The data included sex, age, residence, have siblings, number of siblings, child ranking in the family, receiving education, the place of learning, child live with, kind ship relation, marital status of parents, father's education, fathers' job, type of father job, mother's education, mother's job, type of mother's job, previous family history of autism spectrum disorders, contagious relationship, sibling with autism.

Part II: It was concerned with knowledge autism children about recreational play activities. The data included know recreational play activities, like recreational play activities, play recreational play activities before, feel happy when practice the recreational play activities, change in feeling after playing recreational activities, increase cooperation with peers after recreational play activities, feel happy while playing recreational play activities, want to win in recreational play activities, win in recreational play activities before, help peers to win in recreational play activities, take a reward in recreational play activities before, previous participation for recreational play activities, numbers of participation, types of favorite participated recreational activities, feeling during play recreational activities, feeling after play recreational activities and type of motivation /rewards needed after winning in recreational activities.

Scoring system of patients' knowledge

The scoring system for autism children knowledge was calculated as follows, (2) score for complete correct answer, (1) score for incomplete correct answer, and (0) score for don't know answer or incorrect. For each section of knowledge, the score of questions was summed up and the total divided by the

number of questions, these score were converted into a percent score for the part. The total knowledge scores was considered satisfactory if the score of the total knowledge were $\geq 75\%$, while considered unsatisfactory if it equals $<75\%$.

Tool two: Social withdrawal behavior scale for children with autism:

This scale was developed by (Ghoneim,2019). It was an Arabic inventory scale for children with autism. It consists of 12 a Likert scale items to assess social withdrawal behavior among children with autism.

Scoring system of social withdrawal behavior scale for children with autism

- The scoring system for this tool includes a three-point rating scale which provides a range of three response. The three-point scale as the following; never = 1, sometimes = 2& always=3. The total scoring system ranged from 12 to 36 degrees. The higher degree indicated high social withdrawal behavior

Tool three: Stereotype behavior scale for children with autism

This scale was developed by (Rashid,2012). It was an Arabic inventory scale for children with autism. It consisted of 28 sentence a Likert scale items to assess stereotype behavior among children with autism.

Scoring system of stereotype behavior scale.

The scoring system for this tool included a three- point rating scale which provides a range of three response. Regarding scoring of scale, the score calculated as the following; not applied = 0, sometimes applied =1& strongly applied = 2. The total scoring system ranged from 0 to 56 degrees.

Content validity of the tools

The tools were reviewed for appropriateness of items and measuring the concepts through 5 experts in Psychiatric & Mental Health Nursing and Pediatric Nursing

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to test the content validity. Modifications of the tools done according to the panel judgment on the clarity of sentences, appropriateness of content and sequence of items.

Reliability of the tools

The study tools were tested for its internal consistency by Cronbach's Alpha. Reliability of interviewing questionnaire is 0.87, social withdrawal behavior scale is 0.89 while stereotype behavior scale is 0.82.

Ethical considerations

Approaches to ensure the ethical issues were considered in the study regarding confidentiality and informed consent. Confidentiality was achieved by the use of locked sheets without names of the participants and replaced by numbers. All the participants were informed that the information they provided during the study would be kept confidential and used only for statistical purpose and after finishing the study. Each parent was informed that participation in the study was voluntary, and had the right to withdraw from the study at any time.

Pilot study

A pilot study conducted to test the applicability of the instruments, the feasibility of the study and estimate the time needed for collecting the data. It was conducted on 10% of the total sample (6 children) from outpatient of Psychiatric Mental Health hospital according to the selection criteria. All children participated in the pilot study excluded from the study sample.

Filed work

The investigator started data collection by introducing himself to the studied children and the purpose of the study was simply explained to the parents who agree to participate in the study. Each participant interviewed and assessed individually. Each child was handed the questionnaire and answered it under observation of the investigator. The first

Tool:(Semi structured interviewing questionnaire) and the second tool: (Social withdrawal behavior for autism children). The third tool: (Stereotype behavior for children with autism) The pre-test was collected from each subject every two days/week and collected from 4 to 6 patients per weeks, took two and half months for collected pretest started from the beginning of October 2021 to the middle of December 2021. Then implementation of training program for autism children who met the previously mentioned inclusion criteria during the study period. The researcher divided children into 6 equal subgroups; each subgroup contained 10 children attended a total 15 sessions, sessions implemented for 60-120 minutes two sessions per week. Each subgroup took 6 weeks and a day. The researcher worked with two groups alternately each week. The total number of weeks were 14 weeks, which was equivalent to 4 months hasted from the middle of December 2021 to the middle of April 2022.

Statistical analysis

Upon completion of data collection, the collected data organized, tabulated and statistically analyzed using Statistical Package for Social Science (SPSS) version 25 for windows, running on IBM compatible computer. Descriptive statistics were applied (numbers, percentages, mean and standard deviation). Test of significance, Chi-square test (χ^2) this test used to compared for qualitative variables and correlation coefficient (r) were done for assessment of inter relationship among quantitative variables that were normally distributed or when one of the variables is qualitative, these tests were applied to test the study hypothesis. Reliability of the study tools was done using Cronbach's Alpha. A highly significant level value was considered p- value ≤ 0.001 , significant level value was

Results

Table (1): Shows that, more than three quarters (78.3 %) of the studied children were male, less than half (48.3 %) of them aged 6 < 8 years with mean age (**7.983±2.062**) years old and less than three quarters (71.7 %) of them were from urban areas. Also, most (93.3%) of the studied children had siblings, more than one third (34.0%) of them had two siblings, most of them (91.7 %) of them received education and less than two thirds (63.6%) of them learned at Specialized Center for Autism.

Figure (1): Shows that, 65.0% of the studied children had unsatisfactory level of total knowledge at pre- program implementation compared with, 68.3 % of them had satisfactory level of total knowledge at post- program implementation about recreational play activities. Moreover, there was highly statistically significant difference for the studied children's total knowledge about recreational play activities pre and post program implementation ($P, \leq 0.001$).

Figure (2): Clarifies that, 71.7 % of the studied children had high level of total social withdrawal behavior at pre-program implementation, which improved to be 46.7 % of them had low level of total social withdrawal behavior post-program implementation. Moreover, there was highly statistically significant difference for the studied children's total social withdrawal behavior pre and post program implementation ($P, \leq 0.001$).

Figure (3): Indicates that, 36.7 % of the studied children had high level of total stereotype behavior at pre-program implementation, which improved to be 46.7 % of them had low level of total stereotype behavior post-program implementation. Moreover, there was highly statistically significant difference for the studied children's total stereotype behavior pre and post program implementation ($P, \leq 0.001$).

Table (2): Reveals that, there was highly a statistically significant relation between total studied children's knowledge and their age pre and post program implementation at ($P= \leq 0.001$), while, there was a statistically significant relation between total studied children's knowledge and their gender & receiving education pre and post program implementation at ($P= \leq 0.05$).

Table (3): Shows that, there was highly a statistically significant relation between total studied children's social withdrawal behavior and their age pre and post program implementation at ($P= \leq 0.001$), while, there was a statistically significant relation between total studied children's social withdrawal behavior and their gender & receiving education pre and post program implementation at ($P= \leq 0.05$).

Table (4): Reveals that, there was highly a statistically significant relation between total studied children's stereotype behavior and their age pre and post program implementation at ($P= \leq 0.001$), while, there was a statistically significant relation between total studied children's serotype behavior and their gender & receiving education pre and post program implementation at ($P= \leq 0.05$).

Table (5): Clarifies that, there were highly statistical positive correlation between total level of the studied children' social withdrawal behavior and total stereotype behavior at pre and post program implementation at ($P= \leq 0.001$) While, there were highly statistical negative correlation among total level of the studied children' knowledge and their total social withdrawal and total stenotype behavior at pre and post program implementation at ($P= \leq 0.001$)

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Table (1): Socio-demographic characteristics of the studied autism children (n=60).

Socio-demographic characteristics	No.	%
Sex		
Male	47	78.3
Female	13	21.7
Age (Years)		
6 < 8 years	29	48.3
8 < 10 years	18	30.0
10 ≤ 12 years	13	21.7
Mean ±SD	7.983±2.062	
Residence		
Rural	17	28.3
Urban	43	71.7
Presence of sibling		
Yes	56	93.3
No	4	6.7
Number of sibling (n=56)		
One	12	21.4
Two	19	34.0
Three	13	23.2
Four	7	12.5
Five or more	5	8.9
Enrolling education		
Yes	55	91.7
No	5	8.3
The place of learning (n= 55)		
Specialized Center for Autism	35	63.6
Private School	8	14.6
Kindergarten	6	10.9
Integrate school	6	10.9

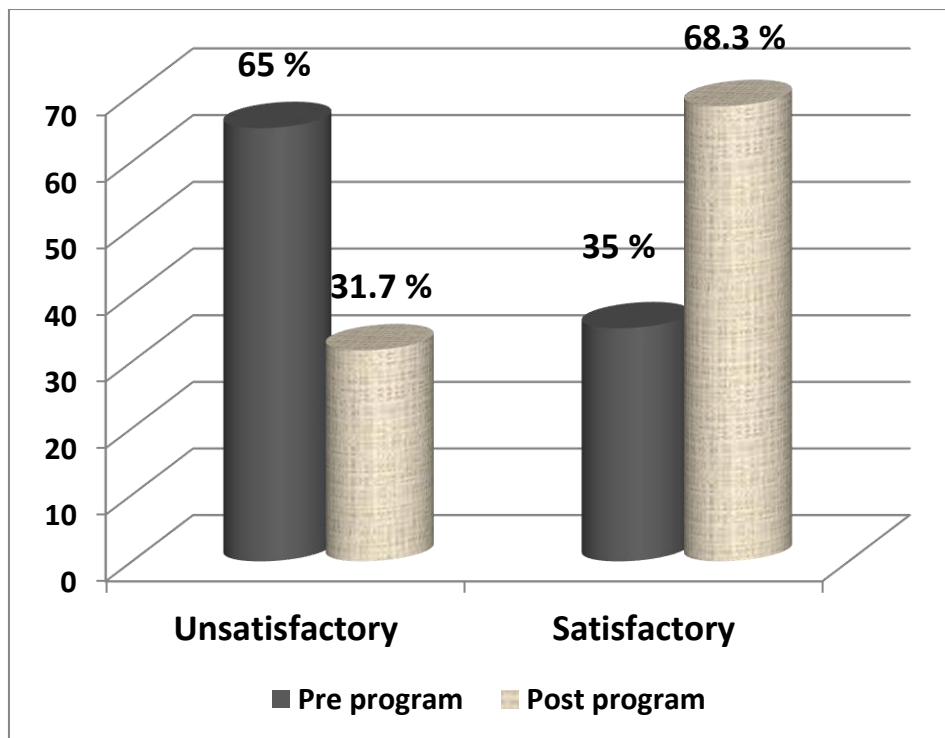


Figure (1): The total knowledge level about recreational play activities pre and post program implementation (n = 60)

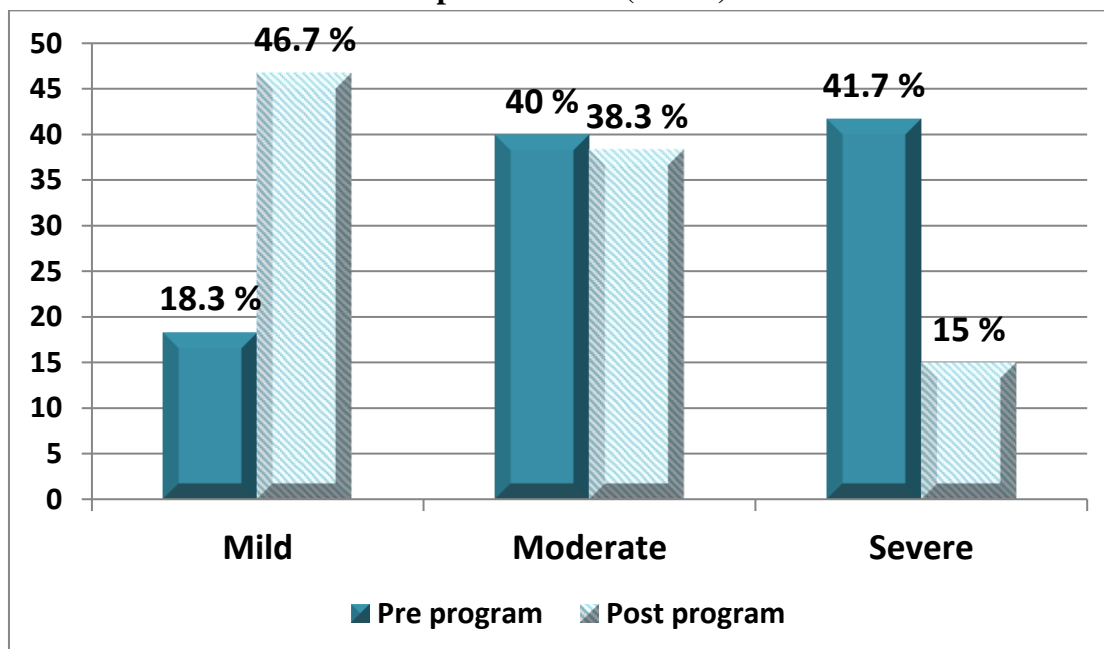


Figure (2): The total level of social withdrawal behavior score pre and post program implementation (n = 60).

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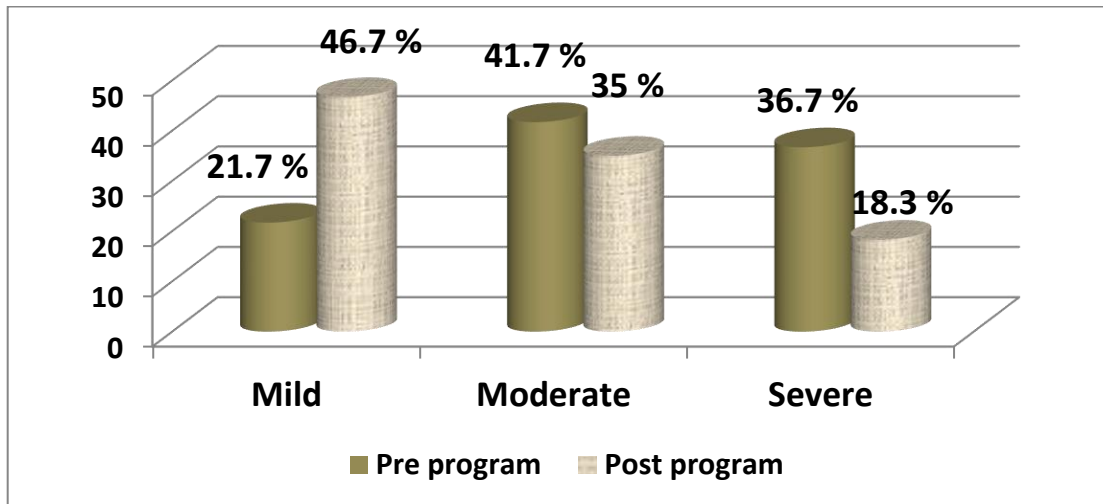


Figure (3): The total level of stereotype behavior score at pre and post-program implementation (n = 60)

Table (2): Relation between total knowledge and demographic characteristics among the studied children pre and post-program implementation (n=60).

Socio demographic characteristics	Pre				X ²	p-value	Post				X ²	p-value
	Unsatisfactory (n=39)		satisfactory (n=21)				Unsatisfactory (n=19)		satisfactory (n=41)			
	No.	%	No.	%			No.	%	No.	%		
Sex												
Male	27	69.2	20	95.2	5.440	0.017*	11	57.9	36	87.8	6.844	0.013*
Female	12	30.8	1	4.8			8	42.1	5	12.2		
Age (Years)												
6 ≤ 8 years	27	69.2	2	9.5	20.107	0.000**	17	89.5	12	29.3	18.861	0.000**
8 ≤ 10 years	8	20.5	10	47.6			1	5.3	17	41.5		
10 ≤ 12 years	4	10.3	9	42.9			1	5.3	12	29.3		
Receiving education												
Yes	5	12.8	0	0.0	4.937	0.019*	5	26.3	0	0.0	11.770	0.002*
No	34	87.2	21	100.0			14	73.7	41	100.0		

Table (3): Relation between total social withdrawal behavior and demographic characteristics among the studied children pre and post-program implementation (n=60).

Socio-demographic characteristic	Pre						X ²	p-value	Post						X ²	p-value
	Mild (n=11)		Moderate (n=24)		severe (n=25)				Mild (n=28)		Moderate (n=23)		Severe (n=9)			
	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%		
Gender																
Male	11	100.0	20	83.3	16	64.0	6.422	0.040*	26	92.9	17	73.9	4	44.4	9.835	0.007*
Female	0	0.0	4	16.7	9	36.0			2	71.1	6	26.1	5	55.6		
Age (Years)																
6 ≤ 8 years	2	18.2	7	29.2	20	80.0	18.245	0.001*	4	14.3	16	69.6	9	100.0	27.321	0.000*
8 ≤ 10 years	5	45.5	9	37.5	4	16.0			13	46.4	5	21.7	0	0.0		
10 ≤ 12 years	4	36.4	8	33.3	1	4.0			11	39.3	2	8.7	0	0.0		
Residence																
Rural	4	36.4	3	12.5	10	40.0	4.988	0.083	7	25.0	9	39.1	1	11.1	2.788	0.248
Urban	7	63.6	21	87.5	15	60.0			21	75.0	14	60.9	8	88.9		
Have sibling																
Yes	2	18.2	0	0.0	2	8.0	4.130	0.127	2	7.1	2	8.7	0	0.0	0.805	0.669
No	9	81.8	24	100.0	23	92.0			26	92.9	21	91.3	9	100.0		
Receiving education																
Yes	0	0.0	0	0.0	5	20.0	7.686	0.022*	0	0.0	1	4.3	4	44.4	13.387	0.002*
No	11	100.0	24	100.0	20	80.0			28	100.0	22	95.7	5	55.6		

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Table (4): Relation between total stereotype behavior and socio demographic characteristics among the studied children pre and post-program implementation (n=60).

Socio-demographic characteristic	Pre						X ²	p-value	Post						X ²	p-value
	Mild (n=13)		Moderate (n=25)		Severe (n=22)				Mild (n=28)		Moderate (n=21)		Severe (n=11)			
	No.	%	No.	%	No.	%			No.	%	No.	%	No.	%		
Gender																
Male	12	92.3	21	84.0	14	63.6	5.769	0.05*	26	92.9	16	76.2	5	45.5	10.543	0.005*
Female	1	7.7	4	16.0	8	36.4			2	7.1	5	23.8	6	54.5		
Age (Years)																
6 ≤ 8 years	3	23.1	7	28.0	19	86.4	20.719	0.000*	6	21.4	13	61.9	10	90.0	17.995	0.001*
8 ≤ 10 years	5	38.5	11	44.0	2	9.1			12	42.9	5	23.8	1	9.1		
10 ≤ 12 years	5	38.5	7	28.0	1	4.5			10	35.7	3	14.3	0	0.0		
Residence																
Rural	5	38.5	3	12.0	9	40.0	5.655	0.059	7	25.0	8	38.1	2	18.2	1.697	0.428
Urban	8	61.5	22	88.0	13	59.1			21	75.0	13	61.9	9	81.8		
Have sibling																
Yes	1	7.7	2	8.0	1	4.5	0.252	0.881	2	7.1	2	9.5	0	0.0	1.071	0.585
No	12	92.3	23	92.0	21	95.5			26	92.9	19	90.5	11	100.0		
Receiving education																
Yes	0	0.0	0	0.0	5	22.7	9.421	0.009*	0	0.0	1	4.8	4	36.4	12.210	0.003*
No	13	100.0	25	100.0	17	77.3			28	100.0	20	95.2	7	63.6		

Table (5): Correlation between total knowledge, social withdrawal behavior and stereotype behavior among the studied children pre and post program implementation.

Scale	Total stereotype behavior			Total knowledge	
		pre-program	post-program	pre-program	post-program
Total knowledge	r	- 0.660	- 0.778	-	-
	p- value	0.000**	0.000**	-	-
Total social withdrawal	R	0.871	0.818	- 0.752	- 0.699
	p- value	0.000**	0.000*	0.000**	0.000**

Discussion

In recent years, the international community witnessed tremendous positive improvements in public awareness and public health response for autism. Among the benefits are the significant improvements in early identification of the condition, which in part, accounts for higher prevalence rates over time. In parallel, epidemiological estimates have been increasing worldwide, especially in previously under-represented regions such as Africa and the Middle Eastern region (**al-Mamari et al., 2019; Alshaban et al., 2019**).

According to socio-demographic characteristics of the children with autism, the current study result showed that less than half of them were at age group ranged between 6 less than 8 years, the mean of their age was 7.983 ± 2.062 years old, regarding child sex, more than three quarters of the studied children were male. While the rest of them were female, this result may be due to the fact that male sex is one of the most well-established etiological factors for autism, giving rise to the notion of a "female protective effect," where females would require greater etiologic load to manifest the same degree of affectedness as males.

In relation to Residence, results of the present study revealed that, about less than three quarters of them were from urban areas. This result could be attributed to the technology, parents busy from children due to works and left them for long time front televisions and mobile. These findings support the notion that urbanization is a risk factor for autism. This finding agreed with **Longtin & Principe, (2016)** who studied " The relationship between poverty level and urban African American parents' awareness of evidence-based interventions for children with autism spectrum disorders: Preliminary data" who reported study participants were living in

urban African American children with ASD. At same line result supported by **Wu & Jackson, (2017)** who study " Inverse relationship between urban green space and childhood autism in California elementary school districts" who stated that urban areas were positively associated with autism rate. Also, **Garcia & Odahowski, (2023)** Who study " An urban versus rural comparison of obesity between youth with and without autism spectrum disorder" who revealed that most of youth with ASD were living in urban areas.

Regarding to sibling, result of the present study revealed that, most of the studied children had siblings, more than one third of them had two siblings. This result disagreed with **Longtin & Principe (2016)**, who studied " The relationship between poverty level and urban African American parents' awareness of evidence-based interventions for children with autism spectrum disorders: Preliminary data" who stated that more than two third of them had one sibling. At same line the result disagreed with **McVey et al., (2023)**, who studied " Examining clinical characteristics of autism and links with parent perceptions of sibling relationship quality" who reported that less than three quarters of them had one sibling.

Based on the result of the present study, most of them received education. This result consisted with study with **Huang & Kang, (2021)**, It was entitled " Participation in play and leisure activities of young children with autism spectrum disorder and typically developing children in Taiwan: A preliminary study" who stated that most of them received education

Concerning to the place of learning, less than two thirds of them learned at Specialized Center for Autism. This result may be due to need of autism children specific care and specific teaching suitable to their abilities. This finding supported by **Hasnain & Akter**

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(2014), It was entitled " The relation of socio-economic factors with autism among children: a study in an urban area of Bangladesh" who revealed that more than half of them were first born

Regarding total knowledge level about recreational play activities, less than three quarters of studied children had satisfactory level of total knowledge at post- program implementation about recreational play activities. this result may be due to effectiveness of program to learn children about recreational actives as therapeutic recreational activities.

This finding supported with study **Younas, et al., (2022)**, It was entitled " Factors Associated with the Participation of Children with Autism Spectrum Disorder in Leisure Activities" who showed that children with ASD showed willingness to take part in different leisure activities. It is however, important to note that their participation in such activities differ and varied by the types of activities. It was identified that different personal factors such as the family's socioeconomic status, health issues, family pressure, job responsibilities, gender, lack of training and age affect their participation.

Concerning, total score for social withdrawal behavior scale, indicates that, more than three quarters of the studied children had high level of social withdrawal behavior at pre-program implementation, which improved to be near half of them had low level of social withdrawal behavior post-program this result may be due to t can be said that therapeutic recreation has an important role in increasing the social skills of children with ASD. This finding is consistent with **García-Villamizar et al. (2017)**, it was entitled " Effects of therapeutic recreation on adults with ASD and ID: a preliminary randomized control trial" who stated in their studies that therapeutic

recreation has an indirect effect on the social skills of individuals with ASD. Also, **Pan &Chen (2014)**, who studied " Chinese medical tourists–Their perceptions of Taiwan" who investigated the effects of therapeutic swimming on the social behaviors of children with ASD and revealed that the program consisting of 10 sessions was effective on social behaviors.

Concerning to total level of stereotype behavior among the studied autistic children, less than half of the studied children had high level of total stereotype behavior at pre-program implementation, which improved to be near half of them had low level of total stereotype behavior post-program From the investigator point of view, This result may be due to recreational play facilitate children to participate, learn communication skills this contribute to decrease serotype behavior and mange of stereotype movement in suitable manner during play.

According to the relationship between total knowledge and age and sex. The result revealed that, there was a statistically significant relation between total studied children's' knowledge and their gender & receiving education pre and post program implementation. This result may be due to when child become older and receive education this help them to increase level of knowledge of children.

The current study demonstrated that there was highly a statistically significant relation between total studied children's' knowledge and their age post program implementation. This result supported by study **Lin Li-Xin et al., (2021)**, entitled " Effects of Physical Exercise in Ameliorating Symptoms of Children with Autism in China: A Meta-Analysis" stated that he results of current research illustrated that exercise interventions

were effective for the treatment of childhood autism.

The current study reported that there were a highly statistical positive correlation between the total knowledge and total social withdrawal and total stereotype behavior at pre and post program implementation. This study may be due to a positive effect of a program on reducing social withdrawal and stereotype behavior. Because of diversity and variety of activities of recreational program and continuity in performance exercise, which help autism children to acquisition new skills to help them to cooperate during a program.

Based on finding of the present study, there were highly statistical negative correlation among total level of the studied children' knowledge and their total social withdrawal and total stenotype behavior at pre and post program implementation. This result may be due to the more increase level of knowledge of recreational play thus make social withdrawal and stereotype behavior improve and decrease. The current study reported that there were a highly statistical positive correlation between the total knowledge and total social withdrawal and total stereotype behavior. Because of diversity and variety of activities of recreational program and continuity in performance exercise, which help autism children to acquisition new skills to help them to cooperate during a program.

This result supported by (Lin,2020) study entitled "Activity participation and sensory processing patterns of preschools-age children with autism spectrum disorder " reported that Children with ASD had significantly lower scores on participation diversity in activities across areas of play, physical recreation, and social activities and higher scored in each of four sensory quadrants. For children with ASD, participation in social activities was significantly negative correlated with SSP-2 quadrant scores

Conclusion

The finding of the present study indicate that recreational play program had positive effect on reducing social withdrawal and stereotype behavior among autism children. This lead to the acceptance of the study hypothesis that social withdrawal and stereotype behavior undergoing recreational play program has showed better enhancement in recovery. Manage on symptoms. This refers to the importance of paying attention to autism centers. There was improvement in the total scores of knowledges of recreational play, social withdrawal and stereotype behavior among autism children.

Recommendations

Recommendation geared toward child:

- Dealing with autism child with respect and maintain dignity of them.

Recommendation geared toward family:

- Implementation of counseling session for parents to increase family awareness about warning signs of ASD for early detection and early intervention.

Recommendation geared toward School:

- Application the recreational play as an educational strategy on schools because of its importance in providing children with different desired behaviors.

Recommendation geared toward community:

- Increase community awareness about autism spectrum disorder and importance of recreational play activities improving children status

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فعالية برنامج اللعب الترفيهي في الحد من السلوك النمطي والانسحاب الاجتماعي لدى أطفال التوحد

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تعد اضطراب طيف التوحد واحدة من الاضطرابات النمائية الأكثر شيوعا ولا يوجد لها سبب واضح. كما أن المشاركة في الألعاب الترفيهية لها دور هام في تحسين جودة الحياة لدى أطفال التوحد. لذلك هدفت الدراسة إلي تقييم فعالية برنامج اللعب الترفيهي في الحد من السلوك النمطي والانسحاب الاجتماعي لدى أطفال التوحد. تم استخدام التصميم شبه تجريبي في هذه الدراسة. أجريت هذه الدراسة في عيادات الخارجية في مستشفى النفسية بمدينة بنها في محافظة القليوبية. شملت عينة الدراسة 60 طفل لديهم اضطراب طيف التوحد. تم استخدام أدوات لجمع البيانات لتحقيق هدف الدراسة: الأداة الأولى: إستبيان مقابلة شخصية لجمع البيانات الديموغرافية والاكلينيكية، الأداة الثانية: مقياس السلوك الانسحاب الاجتماعي للأطفال ذو اضطراب طيف التوحد، الأداة الثالثة: مقياس سلوك النمطي للأطفال ذو اضطراب طيف التوحد. حيث أظهرت النتائج هناك تحسن ودلالة إحصائية عالية في مقياس سلوك الانسحاب الاجتماعي وسلوك النمطي بعد تنفيذ البرنامج بالمقارنة بما قبل البرنامج، كما اوضحت نتائج الدراسة أن هناك علاقة ذات دلالة إحصائية عالية بين مستوي معلومات الأطفال بالألعاب الترفيهية والنتيجة الاجمالية للسلوك الانسحاب الاجتماعي والسلوك النمطي بعد تنفيذ البرنامج. كما تشير نتائج الدراسة الي أن برنامج الألعاب الترفيهية له تأثير إيجابي على خفض السلوك الانسحاب الاجتماعي والسلوك النمطي. كما اوصت الدراسة بتطبيق اللعب الترفيهي كاستراتيجية تربوية في المدارس لما لها من دور كبير في اكساب سلوكيات مختلفة مرغوب فيها.