



## **EFFECTIVENESS OF SOCIAL SKILLS TRAINING IN KIDS WITH ASD**

**Shahnaz Ansari, Neha Jain<sup>1</sup>, Surendra Kumar Meena<sup>1 2\*</sup>**

<sup>1</sup> *MOT Pediatrics, Mahatma Gandhi Occupational Therapy College,  
Mahatma Gandhi University of Medical Sciences & Technology, Jaipur -302022 ,Rajasthan, India.*

<sup>2</sup> *Associate Professor , Mahatma Gandhi Occupational Therapy College,  
Mahatma Gandhi University of Medical Sciences & Technology, Jaipur -302022 ,Rajasthan, India.*

<sup>1</sup> *Professor & Principal, Mahatma Gandhi Occupational Therapy College,  
Mahatma Gandhi University of Medical Sciences & Technology, Jaipur -302022 ,Rajasthan, India.*

\*Corresponding Author.

Article DOI: <https://doi.org/10.36713/epra8629>

DOI No: 10.36713/epra8629

### **ABSTRACT**

*Autism is a neurodevelopmental disorder which highly affects the sensory integration, behavior and social skills of a child. In this project, social skills were evaluated. The objective of the study is to find out whether social skills are addressed to enhance the quality of life and socialization and its success in the client return to society.*

*A different subject prospective, experimental, flexible pre-and-posttest for intervention design followed by descriptive analysis with questionnaire has been used for the purpose of this study.*

*The social skills inventory and Autism treatment and evaluation checklist was main outcome measure. 12 patients with affected social skills shared similar demographic background with post social skills from 5 to 10 years with mean age of 6 years. Paired t-test showed significance difference ( $p < 0.05$ ) improve in work skill in pre-post social skills training. 94% clients who completed the program returned to work and switched over to different social areas, social norms and social age.*

**KEY WORDS:** *social skills training, Quality Of Life, Autism, Neurodevelopmental disorder.*

### **INTRODUCTION**

ASD is a neurological and developmental disorder that begins early in childhood and lasts throughout a person's life. It affects how a person acts and interacts with others, communicates, and learns. It includes what used to be known as Asperger's syndrome and pervasive developmental disorder.

Social skills are the rules, customs and abilities that guide our interactions with other people and the world around us. In general, people tend to "pick up" social skills in same way they learn language skills; naturally and easily. Overtime, they build a social "map" of how to in act in situations and with others.

For people with autism it can be harder to learn and built up these skills, forcing them to guess what the social "map" should look like.



Social skills development for people with autism involves:

- Direct or explicit instruction and “teachable moments” with practice in realistic settings.
- Focus on timing and attention.
- Support for enhancing communication and sensory integration.
- Learning behaviors that predicts important social outcomes like friendship and happiness.
- A way to build up cognitive and language skills.

## **MATERIAL AND METHODS**

### **Design**

Single group pretest posttest experimental design followed by descriptive analysis.

A different subject prospective, experimental, flexible design has been used for the purpose of this study. Social skills training has many components such as verbal/nonverbal communication, anger management, basic behaviors and manners with treatment plan based on client capabilities, deficits, interest, work history and goals.

### **Subjects**

A total number of 12 subjects having autism with affected social skills were selected for the study. Mean age was 6 years (range 5 to 10 years) having both male and female. The post skill duration for participation in is 08 to 40 weeks, mean 16 weeks. Period of study from Dec 10 to July 11. Clients were explained the purpose of the study and were requested to participate in the study. Written consent obtained from each participant before study begins.

### **Inclusion Criteria**

- Kids with ASD.
- Age between 5-10 years.

### **Exclusion Criteria-**

- Did not include individuals with an ASD
- Recruited participants with a mean age of younger than 5 years of age
- Not a group-based SST intervention.

### **Outcome measure used for work skill assessment**

- ATEC (autism treatment and evaluation checklist)
- Social skills Inventory

### **ATEC**

The ATEC is a one-page form designed to be completed by parents, teachers, or caretakers. It consists of 4 subtests: I. Speech/Language Communication (14 items); II. Sociability (20 items); III. Sensory/ Cognitive Awareness (18 items); and IV. Health/Physical/Behavior (25 items).

Thus, if a person scores a '20' on one day, and then a '15' two weeks later, then the individual showed improvement. In contrast, if the score was '30', then the individual's behavior worsened.

Many parents and teachers use the ATEC to monitor how well the child is doing over time. In addition, researchers have used the ATEC to document improvement following an intervention by comparing the baseline ATEC scores with the post-treatment ATEC scores.

## **SOCIAL SKILLS INVENTORY**

The Social Skills Inventory (SSI), also known as the Self-Description Inventory, assesses 6 basic social skills that underlie social competence. It evaluates verbal (social) and non-verbal (emotional) communication skills and identifies strengths and weaknesses. As such, the SSI acts as a reliable and valid abilities measure of Emotional Intelligence. Clients respond to either the 90 item Original Form or 30 item Brief Form using a five-point scale, indicating the extent to which the description of the item applies to them. Scores are reported for one's ability to



send (encode), receive (decode) and manage (control) messages in both the social and emotional domains. A combined score is given to indicate global social and emotional intelligence.

The Social Skills Training Guide is a comprehensive resource guide for Social Skills training and development. The Guide provides a wide range of exercises to develop this domain of Emotional Intelligence.

## PROGRAM DESCRIPTION

The program is designed to help an individual to make a gradual, progressive transition from a medical setting to social area and society. Not all kids with ASD needs social skills development but most of the kids needs it to work in an effective manner in society and adaptive behavior to behave with different people with different values and norms.

## SOCIAL SKILLS TRAINING

Eye contact: Developing eye contacts through various manners

- Providing every object child wants or asks from the midline of both eyes.
- By developing interactions through high 5, high 10 and claps etc.
- By various means of play such as cooperative play

Gestures: gestures are the facial expressions which are make to tell others what the person feels in a non-verbal manner

- By making them aware of different facial expressions and their sense of feeling for the same.
- By showing them different facial expressions and associating them with the appropriate response.

Verbal communication; when child uses some words or phrases to communicate.

- By play using sound toys such as animals, utensils, boxes, and musical instruments like what does a cow says child have to say moo on a repetitive manner.
- Pretend play with any of favorite toy, mobile phone and a person.
- Role play also enhances the verbal capacity of child.

Managing anger and self-control:

- Developing the concept of waiting with boundary setting for a minimum counts to up to several minutes.
- Making a visual schedule chart in which child has the full time table for daily routine which relieves his/her anxiety for performance and thus helps in managing anger and cope ups with the good social skill performance.
- Breaking of difficult or non-interested activity into simpler steps.

Managing self-care and relationship skills

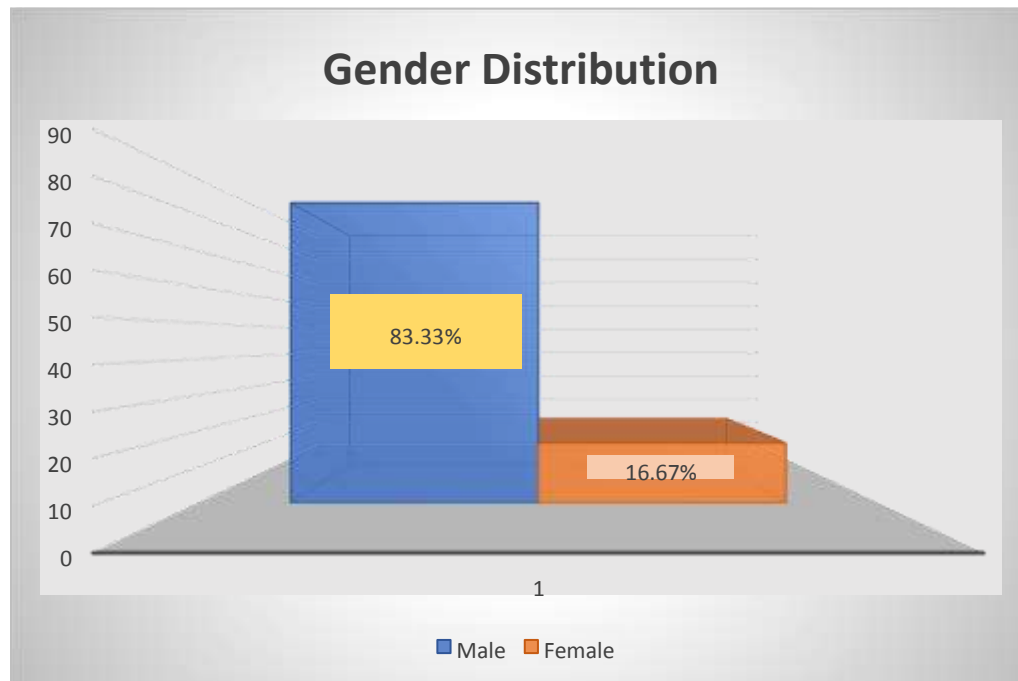
- Promoting self-care by making them understanding the concept of hygiene and non-hygiene on a doll and then comparing the dolls.
- Building roadblocks for maintaining relationship skills by making them aware of common age groups of society and the manner of treating them like younger than you, elder than you and eldest than you and also teaching the basic manners to respond them accordingly.

## RESULT

### DATA ANALYSIS

#### 1 Mean age and sex distribution

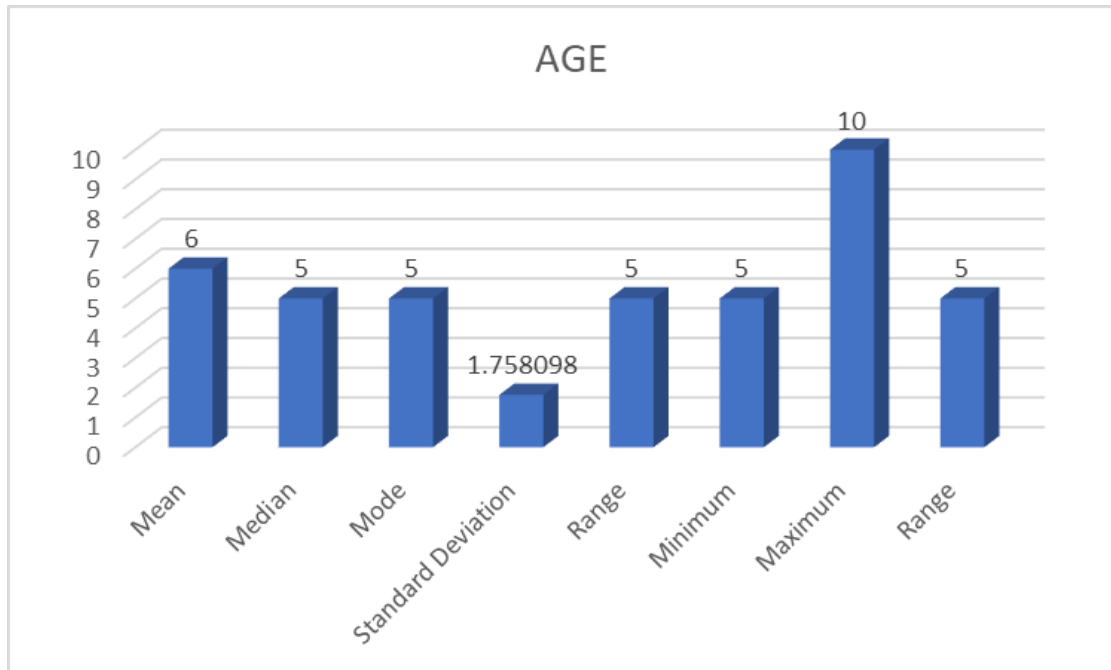
Group	Percentage	Frequency
Male	83.33%	7
Female	16.67%	3



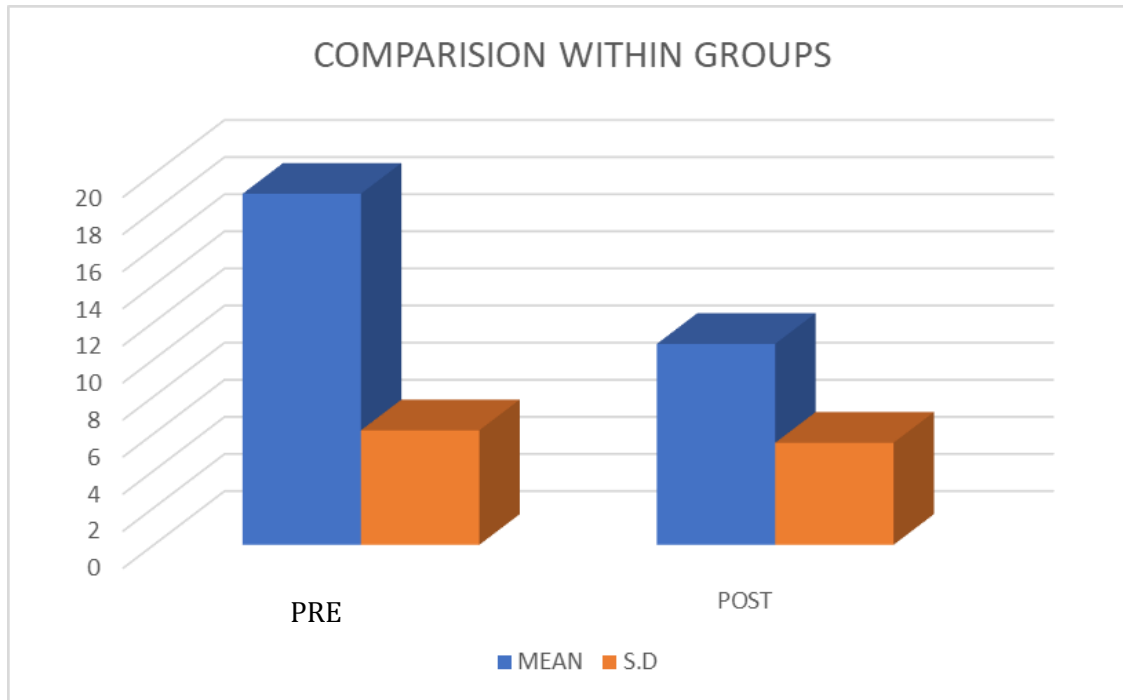
### G.1. GRAPHS SHOWING GENDER DISTRIBUTION

#### AGE ANALYSIS

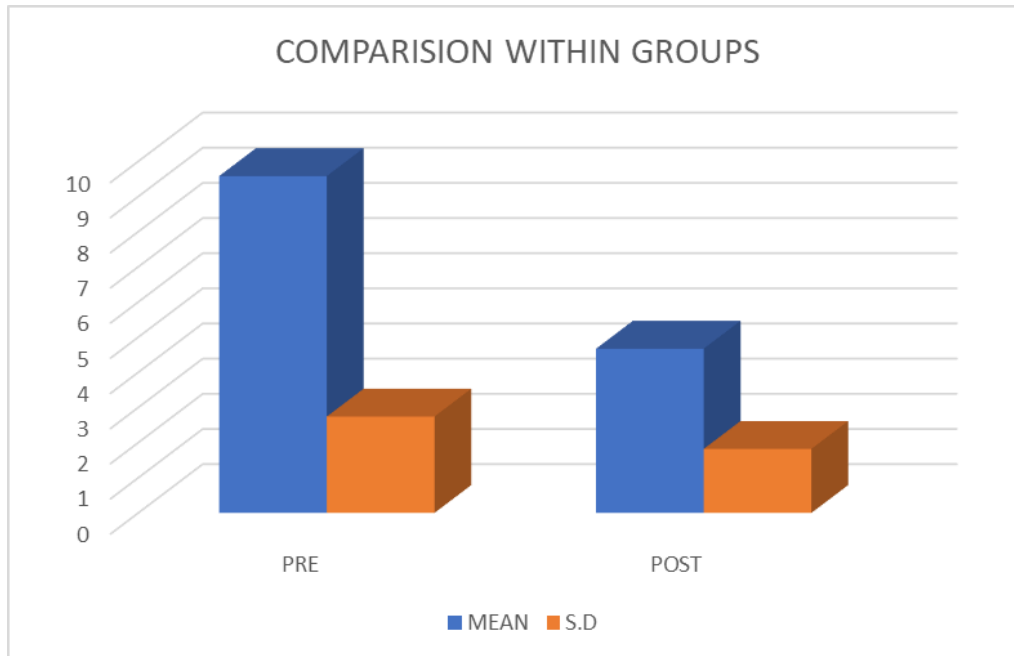
<i>Descriptive Statistics</i>	<i>Age</i>
Mean	6
Median	5
Mode	5
Standard Deviation	1.758098
Range	5
Minimum	5
Maximum	10
Range	5

**G.2. GRAPHS SHOWING AGE DISTRIBUTION**

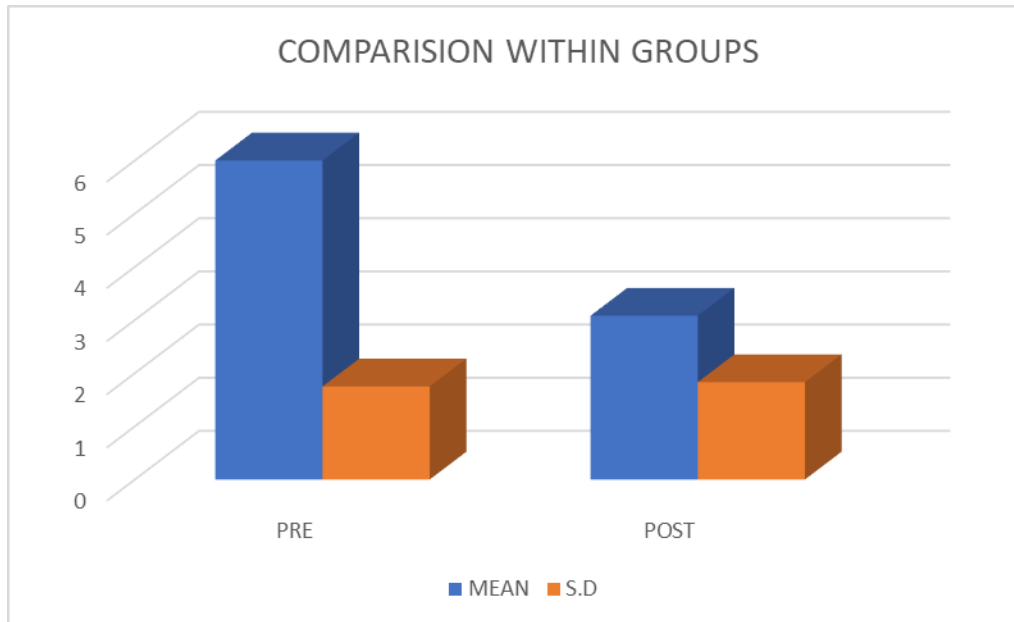
Paired T Test	BASIC MANNERS	
	PRE	POST
Mean	18.92	10.83
S.D.	6.17	5.50
Number	12	12
Mean Difference	8.08	
Paired T Test	8.18	
P value	.000005	
Table Value at 0.05	2.20	
Result	Significant	

**G.3. GRAPHS SHOWING BASIC MANNERS SKILLS**

Paired T Test	VERBAL COMMUNICATION SKILLS	
	PRE	POST
Mean	9.48	4.67
S.D.	2.74	1.82
Number	12	12
Mean Difference	4.91	
Paired T Test	8.83	
P value	.000002	
Table Value at 0.05	2.20	
Result	Significant	

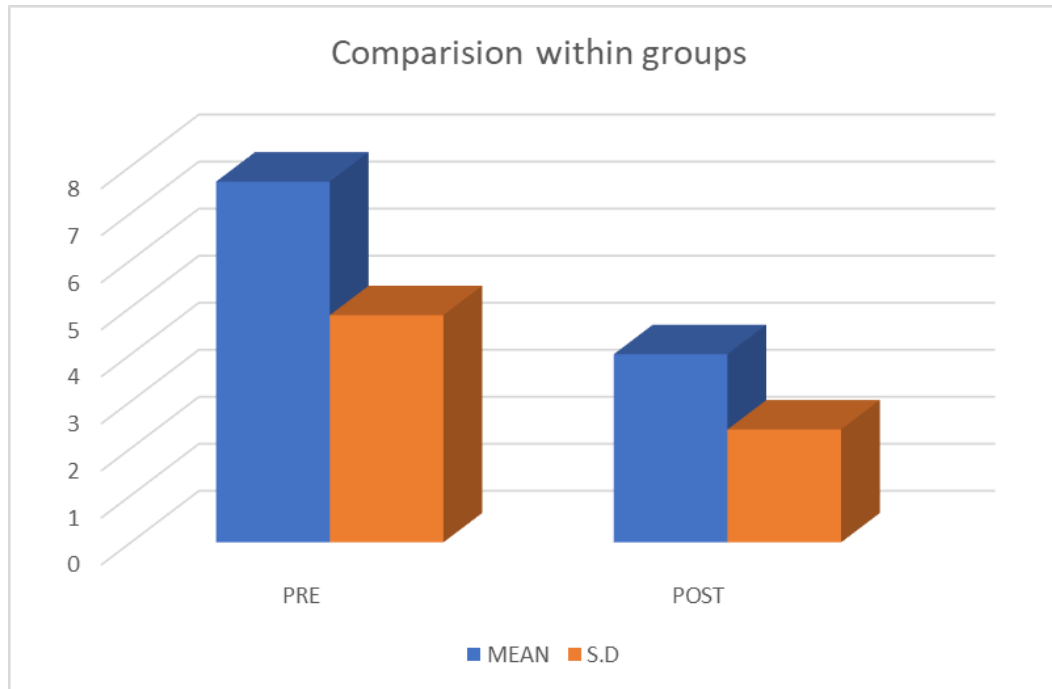
**G.4. GRAPHS SHOWING VERBAL COMMUNICATION SKILLS.**

Paired T Test	NON VERBAL COMMUNICATION SKILLS	
	PRE	POST
Mean	6	3.08
S.D.	1.75	1.83
Number	12	12
Mean Difference	2.92	
Paired T Test	7.32	
P value	.0000014	
Table Value at 0.05	2.20	
Result	Significant	

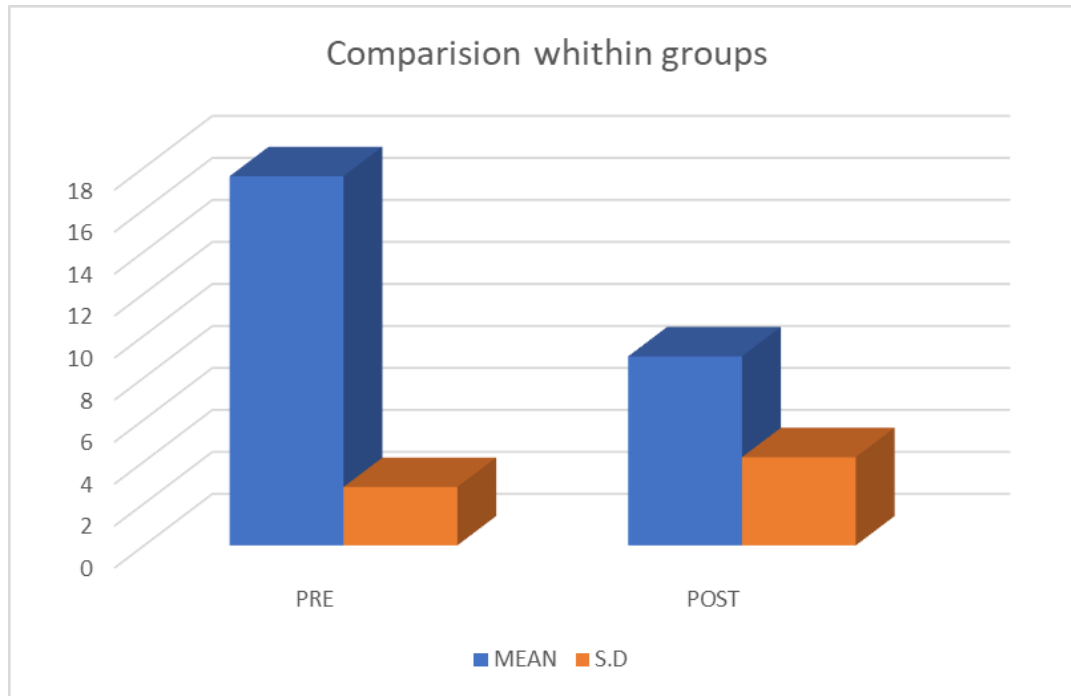
**G.5. GRAPHS SHOWING NON VERBAL COMMUNICATION SKILL**

Paired T Test	SELF CARE	
	PRE	POST
Mean	7.67	4
S.D.	4.83	2.4
Number	12	12
Mean Difference	3.67	
Paired T Test	3.49	
P value	.000525	
Table Value at 0.05	2.20	
Result	Not-Significant	

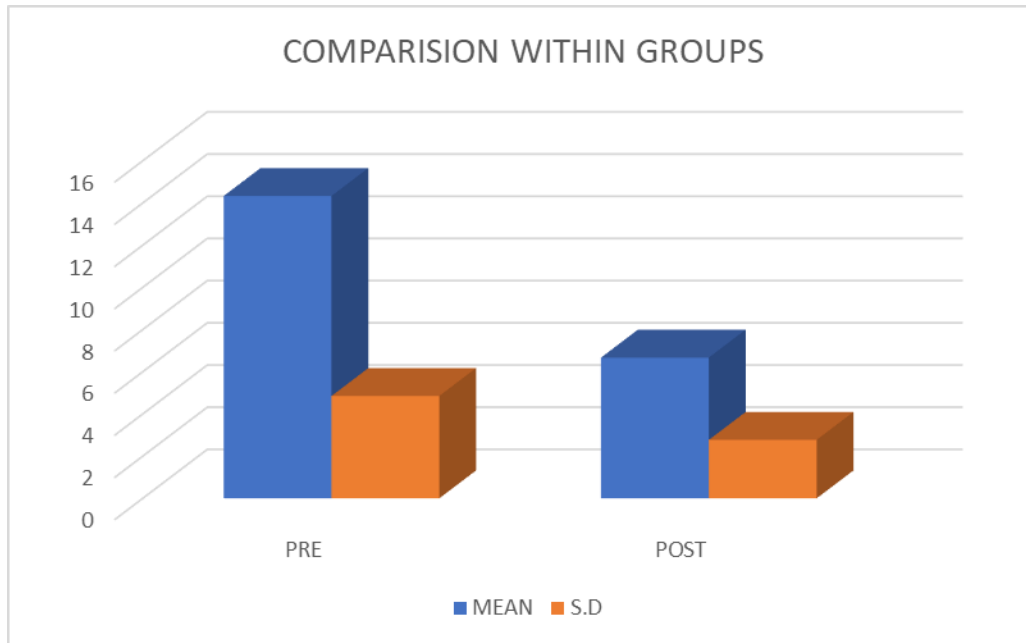


**G.6. GRAPHS SHOWING SELF CARE SKILLS**

Paired T Test	SELF CONTROL	
	PRE	POST
Mean	17.58	9
S.D.	2.78	4.2
Number	12	12
Mean Difference	8.58	
Paired T Test	9.04	
P value	.000002	
Table Value at 0.05	2.20	
Result	Significant	

**G.7. GRAPHS SHOWING SELF CONTROL SKILLS**

Paired T Test	RELATIONSHIP SKILLS	
	PRE	POST
Mean	14.33	6.67
QS.D.	4.85	2.77
Number	12	12
Mean Difference	7.66	
Paired T Test	7.48	
P value	.00001	
Table Value at 0.05	2.20	
Result	Significant	

**G.8. GRAPHS SHOWING RELATIONSHIP SKILL**

**Measuring difference in behaviour and maximum behaviour impacted by therapy**

S.N	Age/Se x	Differenc e in Basic manners	Difference in Verbal communica tion skills	Difference in Non- verbal communicati on skills	Difference in Self care	Difference in Self control	Difference in Relationship skills
1	5/M	4	3	3	2	13	9
2	5/M	8	4	4	5	9	7
3	5/M	4	3	3	0	11	3
4	5/F	3	1	2	0	14	3
5	7/M	12	7	0	7	9	9
6	5/F	9	7	4	7	5	12
7	6/M	6	5	3	7	6	13
8	5/M	6	5	1	5	7	11
9	5/M	11	7	5	7	10	6
10	10/M	10	7	4	4	6	3
11	9/M	11	5	3	5	10	10
12	5/M	13	5	3	2	3	6
	Mean	8.08333	4.916667	2.916667	4.25	8.583333	7.666667



**Maximum Difference is observed in Self Control That shows that, this behaviour was largely influenced by the therapy..**

## RESULTS

Initially with the age group of kids within 5-10 years we assess them with social inventory scale. Then we are able to assess different components of each child needed for social skills such as basic manners, verbal and non-verbal communication skill, self-care, self-control and relationship skills.

We are able to figure out the data collected before the therapy and after the therapy has huge differences. There is marked increase in social skills of kids in each component after Occupational therapy interventions but the maximum effect is shown in self-control with a mean value of 8.58 which means after Occupational therapy interventions children are able to self-control themselves in manner of waiting, turn taking, controlling frustration and agitation etc.

Now we are able to conclude that Occupational therapy is effective in increasing social skills of kids with ASD.

## DISCUSSION

With data collection of 12 children with age limit of 5-10 years have assessed with autism treatment and evaluation checklist for ASD and then social inventory skills which have numerous components of basic manners, verbal and non-verbal communication skills, self-care and self-control skills in pre-test (before therapy) as well as post-test(after therapy).

Post test data shows significant effects in social skills of kids with ASD.

## LIMITATIONS

- Limitations of the study was in collecting data because of the present scenario of Covid19.
- I was not able to take 30 subjects which was the actual size of my data.
- I am successful in collecting data of 12 kids and undergone for the same number for my study.

## FUTURE RECOMMENDATIONS

- I will try to take bigger sample size next time
- Will try to work on community level
- Can also try to work of social skills on various pediatrics conditions.

## CONCLUSION

On providing social skill training to ASD kids and it shows significant effects after occupational therapy intervention. Thus null hypothesis is rejected.

It is very evident through the data analysis (pre-test and post-test) and result which is clearly showing the significant effects of Occupational therapy interventions in kids with AS

## REFERENCES

1. Gates JA, Kang E, Lerner MD. Efficacy of group social skills interventions for youth with autism spectrum disorder: a systematic review and meta-analysis. *Clin Psychol Rev.* 2017;52:164–181. doi: 10.1016/j.cpr.2017.01.006. [PMC free article] [PubMed] [CrossRef] [Google Scholar]
2. Wolstencroft J, Robinson L, Srinivasan R, Kerry E, Mandy W, Skuse D. A systematic review of group social skills interventions, and meta-analysis of outcomes, for children with high functioning ASD. *J Autism Dev Disord.* 2018 [PMC free article] [PubMed] [Google Scholar]
3. Gresham FM, Elliott SN. *Social skills rating system.* Circle Pines: American Guidance Service; 1990. [Google Scholar]
4. Constantino JN, Gruber CP. *Social Responsiveness Scale (SRS-2) Torrance: WPS;* 2012. [Google Scholar]
5. Soorya LV, Siper PM, Beck T, Soffes S, Halpern D, Gorenstein M, Kolevzon A, Buxbaum J, Wang AT. Randomized comparative trial of a social cognitive social skills group for children with autism spectrum disorder. *J Am Acad Child Adolesc Psychiatry.* 2015;54(3):208–216. doi: 10.1016/j.jaac.2014.12.005. [PMC free article] [PubMed] [CrossRef] [Google Scholar]



6. Freitag CM, Jensen K, Elsuni L, et al. Group-based cognitive behavioral psychotherapy for children and adolescents with ASD: the randomized, multicentre, controlled SOSTA—net trial. *J Child Psychol Psychiatry*. 2016;57(5):596–605. doi: 10.1111/jcpp.12509. [PubMed] [CrossRef] [Google Scholar]
7. Deckers A, Muris P, Roelofs J, Arntz A. A group-administered social skills training for 8- to 12-year-old, high-functioning children with autism spectrum disorders: an evaluation of its effectiveness in a naturalistic outpatient treatment setting. *J Autism Dev Disord*. 2016;46(11):3493–3504. doi: 10.1007/s10803-016-2887-1. [PMC free article] [PubMed] [CrossRef] [Google Scholar]
8. Choque Olsson N, Flygare O, Coco C, et al. Social skills training for children and adolescents with autism spectrum disorder: a randomized controlled trial. *J Am Acad Child Adolesc Psychiatry*. 2017;56(7):585–592. doi: 10.1016/j.jaac.2017.05.001. [PubMed] [CrossRef] [Google Scholar]
9. Jonsson U, Olsson NC, Bölte S. Can findings from randomized controlled trials of social skills training in autism spectrum disorder be generalized? The neglected dimension of external validity. *Autism*. 2016;3:295–305. doi: 10.1177/1362361315583817. [PubMed] [CrossRef] [Google Scholar]
10. Schulz KF, Altman DG, Moher D. CONSORT 2010 statement: updated guidelines for reporting parallel group randomized trials. *J Clin Epidemiol*. 2010;83(8):834–840. doi: 10.1016/j.jclinepi.2010.02.005. [PubMed] [CrossRef] [Google Scholar]
11. Gates JA, Kang E, Lerner MD et.al. Efficacy of group social skills interventions for youth with autism spectrum disorder: a systematic review and meta-analysis. *Clin Psychol Rev*. 2017;52:164–181. doi: 10.1016/j.cpr.2017.01.006
12. Robinson L, Srinivasan R, Skuse D et.al. A systematic review of group social skills interventions, and meta-analysis of outcomes, for children with high functioning ASD. *J Autism Dev Disord*. 2018
13. Elliott SN, Gresham FM et.al. Social skills rating system. Circle Pines: American Guidance Service; 1990
14. Constantino JN, Gruber CP et.al. Social Responsiveness Scale (SRS-2) Torrance: WPS; 2012]
15. Soorya LV, Siper PM, Wang AT et.al. Randomized comparative trial of a social cognitive social skills group for children with autism spectrum disorder. *J Am Acad Child Adolesc Psychiatry*. 2015;54(3):208–216. doi: 10.1016/j.jaac.2014.12.005
16. Freitag CM, Elsuni L, Jensen K, et al. Group-based cognitive behavioral psychotherapy for children and adolescents with ASD: the randomized, multicentre, controlled SOSTA—net trial. *J Child Psychol Psychiatry*. 2016;57(5):596–605. doi: 10.1111/jcpp.12509.
17. Deckers A, Muris P, Roelofs J et.al.. A group-administered social skills training for 8- to 12-year-old, high-functioning children with autism spectrum disorders: an evaluation of its effectiveness in a naturalistic outpatient treatment setting. *J Autism Dev Disord*. 2016;46(11):3493–3504. doi: 10.1007/s10803-016-2887-1
18. Choque Olsson N, Flygare O, Coco C, et al. Social skills training for children and adolescents with autism spectrum disorder: a randomized controlled trial. *J Am Acad Child Adolesc Psychiatry*. 2017;56(7):585–592. doi: 10.1016/j.jaac.2017.05.001
19. Bölte S, Jonsson U, Olsson NC et.al. Can findings from randomized controlled trials of social skills training in autism spectrum disorder be generalized? The neglected dimension of external validity. *Autism*. 2016;3:295–305. doi: 10.1177/1362361315583817
19. , Altman DG, Moher D, Schulz KF et.al. CONSORT 2010 statement: updated guidelines for reporting parallel group randomised trials. *J Clin Epidemiol*. 2010;83(8):834–840. doi: 10.1016/j.jclinepi.2010.02.005.