

Efficacy of Parently Approach Pedagogy on Improving Verbal and Non- Verbal Skills of Children with Autism

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ABSTRACT

Background/Objective: Birth of a child is a special gift of every parent. Naturally, some babies fail to develop and acquire milestones like normal children. These condition in which there is a significant deficit or delay in the development of various mental functions from early childhood, are called developmental disorders or disabilities. Among the developmental disorders Autism is a chronic developmental disorder with an increasing prevalence. This study was conducted to assess the efficacy of Parently Approach Pedagogy (PAP) to Primary care givers on improving verbal and non- verbal skills among school children with Autism.

Methods: True-experimental research design was adopted. Initially 94 samples were selected using convenient sampling technique. 47 primary care givers of children with Autistic in experimental and control group. The experimental group received Parently Approach Pedagogy (PAP). The pre and posttest assessed on Verbal and nonverbal skills of autistic children.

Result: The findings shows that statistically highly significant ($P < 0.001$) difference between the level of verbal and non- verbal skills of autistic children in experimental and control group in post- test.

Conclusion: Parently Approach Pedagogy (PAP) was effective in improving the verbal and non- verbal skills in children with Autism.

Keywords: Parently Approach Pedagogy (PAP), Verbal skills, Non- verbal skills, children with Autism, Primary care givers

INTRODUCTION

Birth of a child is a special gift of every parent. Some babies fail to develop and acquire milestones like normal children. Most children develop normally in the beginning, later they express the characteristic features of Autism Spectrum Disorder like aggressiveness, loss of language skills and withdrawal from social interactions. ^[1] The Autism Spectrum Disorders can be detected by the age of 3 years or even as early as 18 months. Network of Centers for Disease Control and Prevention (CDC's Morbidity and Mortality

Weekly Report (MMWR)) reported that in India, the prevalence of about one in Two hundred children are autistic and has an increasing rate from 0.07% to 1.8% and also the number of Autism cases have increased rapidly over the last couple of decades with a prevalence rate of 1 in 500 or 0.20%. They were 17.40 lakhs in 2005, 40 lakhs in 2006, and at present it would be nearly a crore. ^[2]

Children with ASD may have difficulty developing language skills and understanding what others say to them, not able to communicate using speech. Others may have rich vocabularies and be not able

to talk about. [3] Children with ASD have difficulty in communicating non-verbally such as gestures, eye contact, and facial expressions and meanings of different vocal tones. Experts believe that parent-mediated intervention during the early years can enhance life skills of children with autism, improving their life chances. [4] Areas where the child could benefit might include parent-child interaction, social communication, symbolic play, and social imitation. The intervention could lead to better adaptive functioning, which is the ability to cope with daily tasks, less restricted behavior, fewer repetitive behaviors, and reduced anxiety in the child and would also benefit the parents. [5]

Parentally Approach Pedagogy (PAP) is the training of the essential parallel elements that includes personal care, to increase eye contact, to reduce tantrums, to improve speech and language development, music therapy, diet management, and Theraplay used to involve Primary care givers to attain the target of improved physical, mental and social health of the Autistic children.

PROBLEM STATEMENT

Efficacy of Parently Approach Pedagogy (PAP) to Primary Care givers on improving verbal and non – verbal skills among children with Autism in special schools at Puducherry

OBJECTIVES

- To assess the verbal and non- verbal skills among children with Autism.
- To evaluate the effectiveness of Parently Approach Pedagogy (PAP) to Primary care givers on improving verbal and non – verbal skills among children with Autism.
- To associate the verbal and non – verbal skill among children with Autism in selected demographic variables.

HYPOTHESIS

- H₁: There is a difference in the levels of verbal and non-verbal skills among

school children with Autism before and after PAP.

- H₂: There is an association between the levels of verbal and non – verbal skills among school children with Autism in selected demographic variables.

MATERIALS AND METHODS

A Quantitative research approach - true experimental research design has been adopted for this study. Randomization was done for selecting the population for this study. The study was conducted at Satya special school, Karuvadikuppam, Carunnai Special School, Reddiyarpalayam and Anbagam Special School, Ellaipillaichavadi, Puducherry. Population of this study consists of autistic children from different special schools at Puducherry. The sample size was calculated using Power analysis and 94 samples of autistic children primary caregivers. From the accessible population the primary caregivers who satisfied the selection of criteria were selected as samples through Convenient sampling technique and assigned as 47 samples in each experimental and control group. The data collection tool was a modified Indian Scale for Assessment of Autism. The modified questionnaire comprises of two parts, Part I: Socio-Demographic variables of child and family. Part II: Modified ISAA (Indian Scale for Assessment of Autism) Questionnaire regarding verbal and non-verbal skills of their Autistic children. The modifications were incorporated in the final preparation of the tool. Cronbach's alpha test was run for reliability of each domain separately, the results presented the alpha coefficient was 0.85 for verbal skills domain and 0.87 for non-verbal skills domain (p<0.001) indicating high internal consistency for each of domains of ISAA. Prior to collection of data, ethical clearance was obtained from the Institutional Human Ethics Committee. An informed consent was obtained from the study participants.

On the onset of study setting the investigator introduced herself, the

confidentiality of subjects was assured. The data collection was carried out in three phases. **Phase I:** Pre – test on Assessment of verbal and non- verbal skills of children with Autism Spectrum Disorder using modified structured questionnaire with interview and observation technique for the Experimental group and Control group. **Phase II:** 47 samples in Experimental group were divided into three sub - groups for providing **Parently Approach Pedagogy** a Structured Teaching Programme on level of practice on improving verbal and non-verbal skills of children with Autism

Spectrum Disorder on three different days for duration of 30 minutes and booklet was provided to primary caregivers. **Phase III:** Post – test on Assessment of verbal and non- verbal skills of children with Autism Spectrum Disorder using the same modified structured questionnaire with interview and observation technique for the Experimental group and Control group. The collected data was analyzed using SPSS 16 epidata version 2.2.2.186 for descriptive statistics like mean, standard deviation and inferential statistics like paired test, independent test, Chi-Square test.

RESULTS

The demographic variable of the child and the family was collected as a part of the study.

Table 1 comparison of pre and post test of verbal skill among children with Autism N = 94

Verbal skills	Experimental group				Control group			
	Pre test		Post test		Pre test		Post test	
	n	%	n	%	n	%	n	%
Poor(45-65)	13	27.7%	0	0%	10	21.3%	12	25.5%
Mild(23-44)	34	72.3%	47	100%	37	78.7%	35	74.5%
Good(0-22)	0	0	0	0%	0	0%	0	0%

Table 1 portrays the level of verbal skills among children with autism in experimental and control group in pre-test that with regard to 34 (72.3%) had mild level of verbal skills and 13 (27.7%) had poor level of verbal skills in experimental group. Regarding 37 (78.7%) had mild level of verbal skills and 10 (21.3%) had poor level of verbal skills in control group and in post-test with regard,47 (100%) had mild level of

verbal skills in experimental group. Regarding 35 (74.5%) had mild level of verbal skills and 12 (25.5%) had poor level of verbal skills in control group.

The study clearly interprets that the PAP was effective on improving the verbal skill from mid level to good level in experimental group.

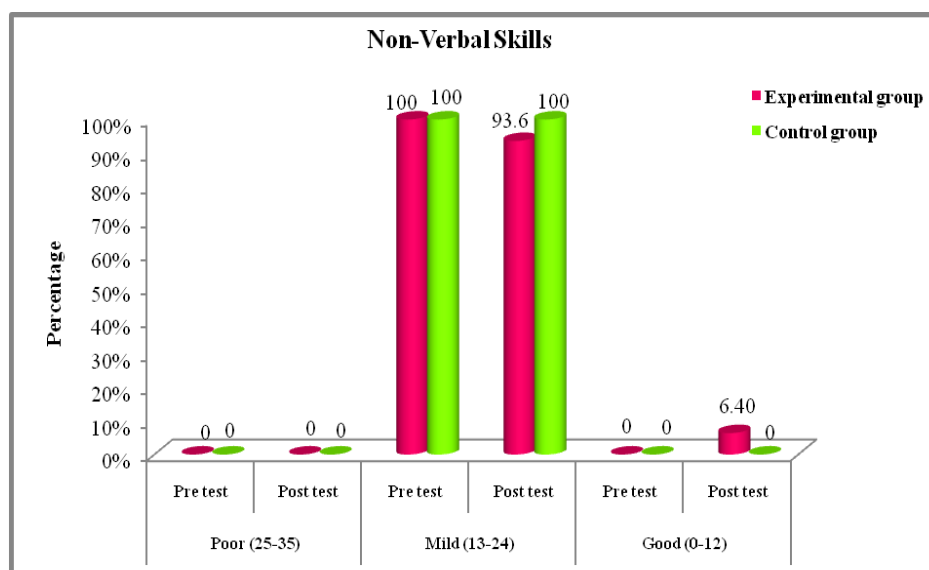


Figure 1 comparison of pre and post test of non-verbal skill among children with Autism

Figure 1 portrays the level of non-verbal skill among children with autism in pre test with regard to 47 (100%) had mild level of non-verbal skill in experimental group. Regarding 47 (100%) had mild level of non-verbal skills in control group and in post-test with regard to 44 (93.6%) had mild level of non-verbal skills 3 (6.4%) had good

level of non-verbal skills in experimental group. Regarding 47 (100%) had mild level of non-verbal skills in control group. The study clearly shows that the PAP was effective on improving the non - verbal skill from mid level to good level in experimental group.

Table 2 comparison of pre and post test mean score of verbal and non-verbal skills among children with Autism in experimental and control group. N = 94

Comparison level	Verbal and non verbal skills		Mean difference	Paired 't' test
	Pre test	Post test		
Experimental group	61.72	61.74	-0.0212	t=-0.240 p=0.000 **S
Control group	62.57	47.76	14.80	t=10.55 p=0.545 *NS

Table 2 shows Comparison of the mean score level of verbal and non-verbal skills among children with autism in pre and post test. The mean (61.72) is level of verbal and non-verbal skills among children with autism in pretest and in post test mean (61.74) is level of verbal and non-verbal skills among children with autism in experimental group. In control group the mean (62.57) is level of verbal and non-verbal skills among children with autism in pretest and in post test mean (47.56) is level of verbal and non-verbal skills among children with autism. The calculated paired 't' test value of $t = -.240$ shows statistically highly significant in experimental group and in control group test value of $t = 10.55$ shows statistically not significant difference between the level of verbal and non -verbal skills among autistic children in pre and post-test.

DISCUSSION

The present study reveals the efficacy of Parently Approach Pedagogy on improvement of verbal and non-verbal skills among children with autism. The first objective was to assess the verbal and non-verbal skills, it reveals that the level of verbal and non-verbal skills among autistic children in experimental and control group in pre-test that with regard to 47(100%) had moderate level of verbal and non-verbal

skills in experimental group. Regarding 47(100%) had mild level of verbal and non-verbal skills in control group. The above results were supported by the improvement of the verbal and non - verbal skills was only minimal in children with mild communication skills and not much effective in children with poor communication skills. [6]

The second objective of the study was to evaluate the Efficacy of PAP and it depicts the result as (93.6%) had mild level of non-verbal skills three (6.4%) had good level of non-verbal skills in experimental group. Regarding 47 (100%) had mild level of non-verbal skills in control group after PAP. The effectiveness of PAP was obtained by 't' value as -0.240 interpreting as statistically significant at ($p < 0.001$). The above findings was supported a quasi-experimental study to assess the effectiveness of structured teaching programme on knowledge of caregivers regarding care of autistic children by using structured questionnaire. 60 caregivers of autistic children were selected, 30 in experimental group and 30 in comparison group by using purposive sampling technique. Result of the study revealed that the post-test knowledge score in experimental group (15.63 ± 2.076) was significantly higher than the post-test score in comparison group (13.13 ± 2.446). This

implies the importance of educational programs intended to enhance the knowledge, attitude and practice of caregivers regarding care of children with Autism Spectrum Disorder which in turn enrich the overall development of such children. [7]

The study shows that the demographic variable gender had shown statistically significant association with level of verbal and non-verbal skills among autistic children in experimental group in post -test with chi-square value of ($\chi^2=3.821$, $p = 0.054$) at $p<0.05$ level. The findings were supported by a survey study in Mangalore to assess the prevalence of signs and symptoms of autism. Five hundred children attending different special schools were screened for autism. Numbers of boys were two times greater than that of girls (50 vs. 24). When analyzed the data it was found that expression of autistic features among the study subjects was significant ($p < 0.00001$). [8]

The main objective of the study was to evaluate the improvement of verbal and non – verbal skills of children with autism after the PAP a parent mediated training will improve the verbal and non – verbal skills. The limitation of the study was particularly a few primary care givers could not attend the session due to their personal reasons.

CONCLUSION

To best of the researcher's knowledge there are only few studies on Parent mediated training and education on improving the skills of the children with autism. It is evident that the Autism disorder in children can be diagnosed as early as the age of three months onwards. Hence the Parents or Primary caregiver mediated

training or teaching at the earliest will enhance the children cognitive, connotative and affective skills in early developmental stages.

REFERENCES

1. Russell M, Baldwin C, McClain D, Matthews N, Smith C, Quan S.F. Symptoms of restless legs syndrome in biological caregivers of children with Autism Spectrum Disorders. *Journal of Clinical Sleep Medicine*. 2017; 13(1):105-113.
2. Raina SK, Chandrer V , Bhardwaj AK, Kumar D, Sharma S, Kashyap V, et.al. Prevalence of Autism Spectrum Disorder among rural, urban, and tribal children (1- 10 years of Age). *J Neurosci Rural Pract [serial online]*. 2017 [cited 2018 Feb 10]; 8:368-74.
3. Margarest Stock. Autism Spectrum Disorders Pervasive Developmental disorders with Addendum. Department of Health and Human Services National Institutes of Health. January 2007; <http://www.nih.gov/medlineplus/autism.html>: 231 – 232.
4. Merlin MB. Assessment of the effectiveness of self instructional module regarding selected developmental disorders of children among mothers. University of Chennai. Tamil Nadu; 2005.
5. Bonis Susan. Stress and Parents of Children with Autism: A Review of Literature. *Issues Ment Health Nurs*.2016; 37(3):153-63.
6. Amanda Bringnell, Karen V Chenausky, Huan song, Jianwei Zhu, Chen Suo, Angela T Morgan. Communication interventions for autism spectrum disorder in minimally verbal children. *Cochrane Database of Systematic Reviews*. 2018; Issue 11: DOI:10.1002/14651858.CD012324.pub2.
7. Diana Prasad. Effect of Structured teaching programme on knowledge of caregivers of autistic children contemporary Research in India. 2017;7(2):338-43. Available from: <https://www.contemporaryresearchindia.Net/pdf/CRI%20June%202017/62>.
8. Sharda V, Subbalakshmi NK, Narayana S, Samal R k. Prevalence of autism autistic features and associated risk factors in subject attending special schools in our community. *Nitte University Journal of Health Sciences*. 2012; 2(2): 24-29.

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