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## **A Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Autism among School Teachers in Selected Schools in View to Develop an Information Booklet**

**Rupali Hanumant Tandale**

Nursing Tutor, Jijamata College of Nursing, Majalgaon, India

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Corresponding Author: **Rupali Hanumant Tandale**

### **Abstract**

Autism is a neurodevelopmental disorder characterized by impairments in social interaction, communication difficulties, and restricted, repetitive patterns of behavior. The increasing prevalence of autism spectrum disorder (ASD) has created a growing need for awareness and understanding among school teachers, who are often the first professionals to observe developmental differences in children. Adequate knowledge among teachers is essential for early identification, timely intervention, and the implementation of appropriate educational strategies. However, studies have shown that many teachers lack sufficient knowledge regarding autism.

The present study was conducted to evaluate the effectiveness of a structured teaching programme on knowledge regarding autism among school teachers in selected schools, with a view to developing an information booklet. The objectives of the study were to assess the pre-test level of knowledge, implement the structured teaching programme, evaluate its effectiveness through post-test assessment, and develop an informative booklet based on the findings.

A quantitative research approach with a pre-experimental one-group pre-test and post-test design was adopted. The study was conducted among school teachers selected through a convenient sampling technique. A structured

knowledge questionnaire was used as the data collection tool to assess teachers' knowledge before and after the intervention. The structured teaching programme covered various aspects of autism, including definition, causes, risk factors, clinical features, diagnosis, management, and classroom strategies for children with autism.

The collected data were analyzed using descriptive and inferential statistics. The results revealed that the majority of teachers had inadequate to moderate knowledge in the pre-test, whereas post-test scores showed a significant improvement in knowledge levels after the implementation of the structured teaching programme. The findings indicated that the structured teaching programme was highly effective in enhancing teachers' knowledge regarding autism.

The study concludes that structured educational interventions can significantly improve awareness and understanding of autism among school teachers. It emphasizes the importance of incorporating regular training programmes in schools to equip teachers with the necessary skills and knowledge to support children with autism effectively. Based on the findings, an information booklet was developed to provide a simple, practical, and accessible resource for teachers, aiming to promote early identification and better classroom management of children with autism.

**Keywords:** Autism, Autism Spectrum Disorder, Structured Teaching Programme, Knowledge, School Teachers, Awareness, Educational Intervention, Information Booklet, Early Identification, Special Education

### **Introduction**

Developing countries like India having Autism children is a double tragedy; not only is the child unable to contribute to the family's resources, instead he/ she needs additional caring which drains the family's resources. Thus having an Autism child in the family affects not only the individual who has this problem, but also their families and the society as a whole. Today there are no training methods for parents as each one requires training based on the disability of the child. Caregivers can take care of their children with the help of various training methods such as Homecare management. Caregivers should involve in extracurricular activities to foster communication, language development, selfcare, self identity, Homecare environment of

Autism children. The aim of the homecare management training given to the caregivers of Autistic children is to make their children self dependent [1].

Autism Treatment Center of America diagnosed Children with Autism and observed that they enjoy life in their own unique world. A child with autism wants the object or the people to enter their world to understand the autistic way of life. Globally, initiatives are taken to conduct research on diagnosis and remediation for autistic children. India played a major role in making the children with autism to lead a sustainable life. India is marching towards the success path in Inclusive Education by making compulsory education for all the children who are out of school to enroll in regular education. Children who are differently challenged are one among the population, included in the inclusive education setting. But children with severe disable are exempted from mainstream schools as they are prone to serious developmental and disorder problems [2].

Children with Autism Spectrum Disorder (ASD) or Autism have serious behavior developmental disorders which made them out from the school education by regular system. Poor involvement of teachers is a significant cause for discontinuation of Children with Autism. The teachers at mainstream schools failed to recognize, accept, and accommodate children with autism in regular classes. In this connection, research studies were conducted to find out the indicators in relation to exclusion of CWA in regular school education. Some common indicators for the exclusion are associated with attitudes, knowledge and perceptions of both teachers and parents of CWA, for teaching them in mainstream schools [3].

### Need for Study

Autism takes its toll on the family as well as the child. Parents have often been dealing with and worrying over their child for months or even years before the child is diagnosed and brought in for treatment, the parents usually feel anxious, tired, guilty and confused. An assessment of their strengths, weakness and resources can help to define the type of treatment that is possible.<sup>24</sup>

To confirm a diagnosis of ASD, the child must undergo a comprehensive evaluation involving a multidisciplinary team-Psychologist, Neurologist, Psychiatrist, Speech pathologist and sometimes a special educational evaluator and occupational therapist. If clinically indicated, the child also undergoes metabolic or other targeted tests, brain imaging and electroencephalography. In many cases, hearing tests and screening for lead exposure are done.<sup>25</sup>

Treatment of Autistic children may involve psychotherapy, residential treatment and psychotropic medications. Intervention begins with the family. Parental support is imperative. They need emotional support. This begins to reduce their burden, anxiety and guilt. Where disturbed parenting methods exist, they should be identified and replaced by healthier measures. This can be done through parent education, role modelling and supportive counselling.<sup>26</sup>

There are massive efforts underway to unravel the causes of Autism and develop effective treatments. Recent trends are focusing on increasingly early diagnosis (before age 2) and earlier interventions are likely to continue. Parents expanding role in remediating autism's severe social deficits

seems to be promising trend, as does rapid improvement in infant brain imaging. While a cure for this baffling and frustrating developmental disorder is unlikely in the future, Autism is undoubtedly yielding steadily a public and professional awareness.<sup>27</sup>

### Problem Statement

“A Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Autism among school teachers in selected schools in view to develop an information booklet.”

### Objective

- Primary objective: To assess the pre-existing knowledge regarding Autism among school teachers in selected schools.
- Secondary objective: To Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Autism among school teachers in selected schools.
- To find out an association between the pre-test level of knowledge score with selected demographic variables.

### Methodology

#### Research Approach

Research approach involves the description of the plan to investigate the phenomenon under the study a structured (Quantitative), unstructured (Qualitative) or a combination of two methods (Quantitative Qualitative integrated approach). Therefore, the approach helps to decide about the presence or absence as well as manipulation and control over variables. In addition, it also help to identify the presence or absence of comparison between groups. The approach of the research study depends on several factors, but primarily on the nature of phenomenon under study.

The present study aimed at “A Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Autism among school teachers in selected schools in view to develop an information booklet.” As the present research approach is Quantitative research approach.

### Research Design

The term - Research Design refers to the plan or organization of a scientific investigation. Research design helps the researcher in selection of subject, manipulation of experimental variables, control of extraneous variables and the data to be collected and also type of statistical analysis to be used to interpret the data.

The purpose of research design is to plan a structure and strategy of an investigation, so as a provide answer to a research question and to control variance. The selection of research design depends upon the researcher 's level of knowledge, nature of purpose and controls.

The selection of design depends upon the purpose of the study, research approach and variables to be studied. The research design used for the present study is Pre-experimental, one group pre-test and post-test design (o1 x o2), as this would help the researcher to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Autism among school teachers in selected schools in view to develop an information booklet.

**Table 1:** Research Design

Group	Pre-test	Treatment	Post-test
School Teacher	O1	X	O2

**Key:**

- O1- Pre Test knowledge of School Teachers regarding Autism.
- X- Structured teaching programme School Teachers regarding Autism.
- O2- Post Test knowledge School Teachers regarding Autism.

**Variables Under the Study**

A concept which can take on different quantitative values is called a variable. The concept can be person, object or events that are being studied. There are three types of variables in this study.

**Dependent Variables:** A dependent variable is the response behavior or outcome that the researcher wants to predict or explain. In this study the dependent variable is knowledge of School Teachers regarding autism.

**Independent Variables:** An independent variable is a stimulus or activity that is manipulated or varied by the researcher to create an effect on dependent variable. The independent variable is also called intervention, treatment or experimental variable. In this study the independent variable is structured teaching programme on autism.

**Setting of the Study**

Setting is the physical location and condition in which data collection takes place in a study. The study was conducted in selected Schools.

**Population**

The population is a complete set of individuals or objects that possess some common characteristics of interest to the researcher.

**Target Population**

Target population or universe is composed of the entire group of people or objects to which the researcher wishes to generalize the findings of study (Polit D.F 2004). The target population for the present study was school teachers in selected schools.

**Accessible Population**

Accessible population is the aggregate of participants who confirm to the designated criteria and are accessible as a pool of subjects for a study (Polit and Beck 2004). The accessible population for the study was School Teachers present at the time of study.

**Sampling Technique**

“Sampling refers to the process of selecting of portion of the population to represent the entire population”.

The sampling technique used in this study was non-probability Convenient sampling technique.

According to Polit and Hungler convenient sampling entails the selection of the most readily available persons as subject in the study.

In this study, the sampling technique was non-probability Convenient sampling, the selection of sample depended

upon the ready availability and fulfillment of the inclusion criteria until a designed size of sixty population was reached. The investigator preferred to choose this sampling technique because of the constraint of time in order to complete the data collection within the stipulated time.

**Sampling Size**

The sample consists of the units which comprise the population. 60 school teachers were selected conveniently to suit the study.

**Sample Size Calculation**

60 school teachers were selected who were available during the period of data collection were the sample for the study as mentioned in the inclusion criteria.

Using Cochran formula:

$$N = Z^2 \times p \times q / e^2$$

$$N = (1.96)^2 \times 0.26 \times 0.74 / (0.10)^2$$

$$N = 54$$

The estimated sample size is  $74N = 54 + 6 N = 60$  The actual sample size is 60 subjects.

**Criteria for Sampling**

The following criteria are set for the selection of sample: Sample were be selected from the available school teachers of selected school.

**Inclusion Criteria**

1. Both male female teachers
2. Who are available at the time of data collection
3. Who are willing to participate
4. Who can understand the Marathi and English language.

**Exclusion Criteria**

1. Teachers who were on leave during the data collection period.
2. Who were absent at the time of study.

**Selection and Development of the Tool**

Data are the pieces of information or facts that are collected in a research study. Data collection is the gathering of information needed to address a research problem.

The tool developed for the study was, Structured Knowledge Questionnaire to assess the knowledge of school teachers on autism. The main purpose of this tool was to educate the school Teachers.

A knowledge questionnaire was developed to assess the learning needs and to assess the gain knowledge. For the selection of the items and development of the tool review of literature related to causes of autism. Studies related to autism in school children, studies related to the effectiveness of school interventions in reducing autism.

**Development of the tool**

The tool / questionnaire were developed based on:

- Review of related literature.
- Consultation and discussion with expert.
- Personal experience in the clinical setting.
- Objectives of the study and blue print.

**Steps taken to prepare tool**

**Step 1: Planning for tool**

A structured teaching programme was prepared including the areas of introduction to autism and various measures to provide information to the subjects of the study.

**Step 2: Preparation of the blue print:**

A blue print was prepared as per the important aspects of structured teaching programme prior to the construction of structured knowledge questionnaires.

**Step 3: Formation of questionnaire:**

Questionnaire was prepared on the basis of structured teaching programme and blueprint.

**Description of the Tool:**

Section A: Demographic variables

Section B: Knowledge questionnaire on autism. Tool for data collection Prepared tool mainly consist of 40 items.

**Section A:** Questionnaire on Demographic variables consisting Age, gender, educational qualification, monthly income, work experience, previous knowledge regarding autism. These consist of 6 items. No scores are given for these variables.

**Section B:** Consisting of structured questionnaire to assess the knowledge of school teachers regarding autism. It has 25 questions in multiple choice questions. Each correct answer carries one mark. In this study the total score was interpreted as follows:-

1. < 40% (0-8) inadequate Knowledge
2. 41 – 70% (9-17) moderate knowledge.
3. 71 - 100% (18-25) adequate Knowledge

**Section C:** Structured teaching Programme on autism.

**Table 2:** Blue Print of the Tool

S. No	Content/ objective	Knowledge Que no.	Comprehension Que no.	Application Que no.	Total	Percentage
1	Knowledge regarding Autism	1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25.	-	-	25	100%
<b>Total</b>		25	-	-	25	100%
<b>Percentage</b>		100%	-	-		

**Validity of Tool**

Validity refers to whether a measurement instrument accurately measures what it is supposed to measure. The prepared questionnaire and structured teaching programme along with the objectives, operational definition and scoring key for validating the tool, along with the criteria check list was given to 11 experts, 7 of them were from field of Child Health Nursing. 2 expert were from the Child Health Doctors 1 expert from statistical field. The modifications and suggestions given by the experts were incorporated and the instrument was finalized.

**Reliability of the Tool**

Reliability of the tool is the degree of consistency with which measures the attributes it is suppose to measure. It refers to the extent to which the same results are obtained on repeated administration of the instrument. In order to establish the reliability of the tool, split –half method was used. The tool was administered on 6 subjects and the test was first divided into 2 equal half’s and correlation of the half test was found by using Karl Pearson correlation coefficient formula and the significance of the correlation was tested by using probable error. The reliability of whole test was estimated by Spearman-Brown Prophecy formula. The questionnaire is said to be reliable if the co efficient is more than “r” is more than 0.8. (Polite and beck) The reliability co efficient “r” of the questionnaire was 0.90 which is more than 0.8 Hence the questionnaire was found reliable.

$$r_{full} = \frac{2(r_{half})}{1 + r_{half}}$$

**Pilot Study**

Pilot study is a small preliminary investigation of the same general character of the main study. The main aim was to

assess the feasibility, practicability and assessment of adequacy of measurement.

Pilot study is a small version or trial run done in preparation for a major study. Pilot study was done from 16/21/2024. Formal permission was obtained from the higher authority of selected school. the investigator selected 6 school teachers, by convenient sampling technique. The pre test questionnaire was administered to assess the knowledge of school teachers regarding autism. On the same day structured teaching programme was given to the Teachers after the Pretest. Post test was done on 7<sup>th</sup> day with the same questionnaire to assess the knowledge level of the school teachers. The data collected was analyzed using descriptive and inferential statistics. The significance of difference in the pre test and post test was found using paired t test. The study was found feasible and practicable. After conducting pilot study, the researcher was sure about the comprehensibility of the tool to the samples. Researcher gained much confidence in administering the tool to the samples. There was no modification done after conducting the pilot study.

**Methods of Data Collection Process**

The data collection procedure is the gathering of information needed to address research problem. The formal written permission was obtained from the selected school. The main study data collection was carried out for 4 weeks from (20/01/2025) the total samples were selected by using convenient sampling method and sample consisted of 60 school teachers who fulfilled the inclusion criteria.

After selecting the sample through convenient sampling, the investigator introduced him to the subjects and explained the purpose of the study and requested the participants for their cooperation and ensured the confidentiality of their responses. An informed consent was obtained from the respondents indicating their willingness to participate in the

study. The data was collected in the guest room near to the classroom. The samples were given privacy. The investigator sat face-to-face with each subject and requested to fill the demographic Performa.

Thereafter the investigator used the questioning technique to obtain the information from the subjects using structured questionnaire. 2-4 samples/day were selected to collect data. It took 30 to 40 minutes to collect the data from each subject. The investigator did not find any difficulty in collecting the data from the respondents and the respondents were cooperative. First the socio-demographic data was collected and pre- test was conducted to identify pretest knowledge scores. This was followed by administration of planned teaching. On 7 day after pre-test, post test was conducted using the same tool to assess the post test score knowledge of the sample. The time taken to get information

from each samples was 40-45 minutes. The data was thus collected and compiled for data analysis.

**Plan of Data Analysis**

The obtained data was analyzed in terms of the objectives and hypothesis of the study by both descriptive and inferential statistics.

**Descriptive Statistics:** Frequency and percentage were used for analysis of demographic data. Mean, standard deviation and average was used to find the below and above average scores.

**Inferential Statistics:** Chi-square test was used to find out the association between Knowledge score and selected demographic variable. Paired t-test was used to examine the effectiveness of structured teaching programme.

**Table 3:** Plan of Data Analysis

S. No	Data Analysis	Method	Remark
1	Descriptive statistic	Frequency percentage	To describe demographic Variable
		Mean and standard deviation	The knowledge Regarding autism in terms of frequency, percentage, mean and standard deviation will present in table Diagrams.
2	Inferential statistic	T-test	Paired t-test will conduct to find out the effectiveness of structured teaching programme in the level of knowledge before and after the intervention.
		Chi-square test	Chi square test will use to analyze the association of demographic variables with knowledge.

**Summary**

This chapter deals with the research methodology adopted for the study and includes detailed description of research approach and research design used for present study, setting of the research study, sample, sample size, sampling technique and data collection technique. Development of the tool used for data collection, validity and reliability, determination of the tool. Pilot study and plan for data collection for main study and data analysis.

**Data Analysis and Interpretation**

This chapter deals with the analysis and interpretation of the data collected from 60 participants to find the Effectiveness of Structured Teaching Programme on Knowledge Regarding Autism among school teachers in selected schools in view to develop an information booklet. In the present study the data collection was based on the objectives of the study and organized, tabulated, analyzed and interpreted by using descriptive and inferential statistics and described with help of tables and graphs. The collected information was organized and presented in five parts.

**Presentation of Data**

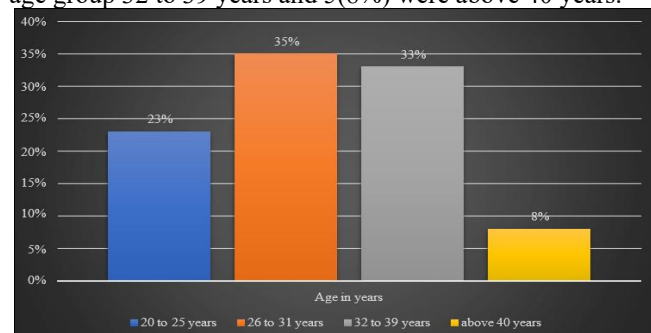
- **Section A:** In this section the description of socio demographic characteristics of the subject was drawn and its percentage analysis has shown.
- **Section B:** In this section assessment of the Pre-test knowledge of regarding autism among school teachers has shown.
- **Section C:** In this section assessment of the Post-test knowledge of regarding autism among school teachers has shown.
- **Section D:** Effectiveness of structured teaching programme on autism among the subjects has shown.
- **Section E:** This section deals with the association between the pretest knowledge scores and selected demographic variables has shown.

**Section A: Description of Socio Demographic Characteristics of the Subject and its Percentage Analysis**

**Table 4:** Distribution of School Teachers According to Age (N=60)

Demographic Variables	Category	No of subjects (N)	Percentage %
Age Years	20-25 Years	14	23
	26-31 Years	21	35
	32-39 Years	20	33
	Above 40 Years	5	8

The Table 4 and Fig 3 shows that with respect to age of school teachers 14(23%) were of age 20 to 25 years, 21(35%) were of age group 26 to 31 years, 20(33%) were of age group 32 to 39 years and 5(8%) were above 40 years.



**Fig 3:** Distribution of School Teachers According to Age

**Table 5:** Distribution of School Teachers According to Gender (N=60)

Demographic variables	Category	No of subjects (N)	Percentage %
Gender	Male	14	23
	Female	46	77

Table 5 and Fig 4 denotes that for gender of school teachers 14(23%) were male and 46(77%) were females.

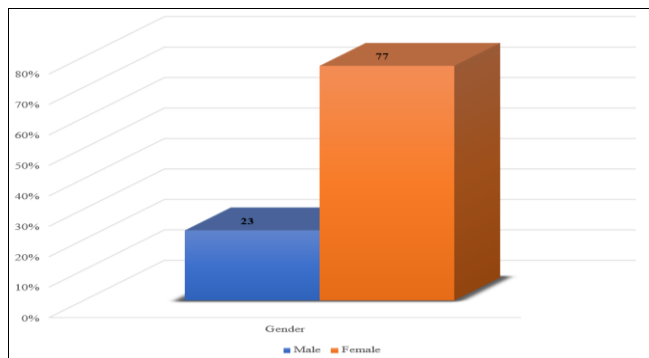


Fig 4: Distribution of School Teachers According to Gender

Table 6: Distribution of School Teachers According to Educational Qualification (N=60)

Demographic Variables	Category	No of subjects (N)	Percentage %
Educational Qualification	Teachers Training Programme	11	18
	B.E.d	16	27
	M.E.d	24	40
	Other	9	15

Table 6 and Fig 5 denotes that with respect to educational qualification 11(18%) had done teachers training programme, 16(27%) had done B.E.d, 24(40%) had done M.E.d and 9(15%) had done other education.

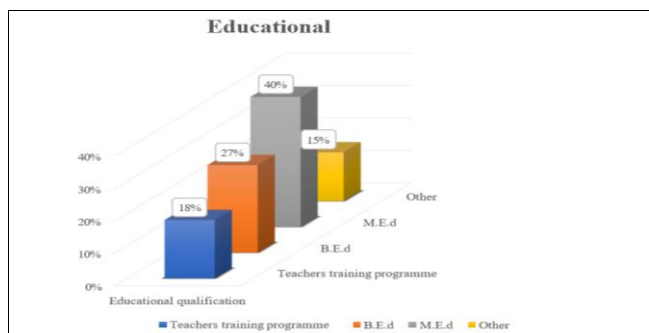


Fig 5: Distribution of School Teachers According to Educational Qualification

Table 7: Distribution of School Teachers According to Monthly Income (N=60)

Demographic Variables	Category	No of subjects (N)	Percentage %
Monthly Income	Less Than Rs.10000	9	15
	Rs.10001 TO Rs.15000	18	30
	Rs.15001 TO Rs.20000	23	38
	Rs. 20001 and above	10	17

Table 7 and Fig 6 denotes the monthly income of school teacher in which 9(15%) had income less than Rs. 10000, 18(30%) had income ranging between Rs.10001 to Rs.15000, 23(38%) had income between Rs. 15001 to Rs.20000, and 10(17%) had income above Rs. 20001.

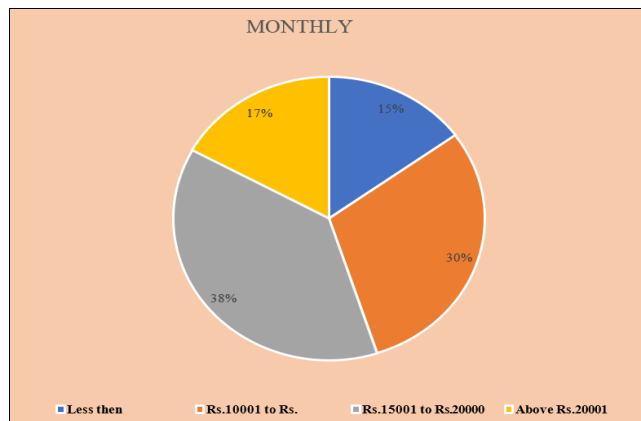


Fig 6: Distribution of School Teachers According to Monthly Income

Table 8: Distribution of School Teachers According to Work Experience (N=60)

Demographic variables	Category	No of subjects (N)	Percentage %
Work Experience	1-5 Years	27	45
	6-10 Years	22	37
	11-15 Years	8	13
	16 Years and Above	3	5

Table 8 and Fig 7 shows that with respect to work experience 27(45%) had 1 to 5 years experience, 22(37%) had 6 to 10 years experience, 8(13%) had 11 to 15 years experience and 3(5%) had experience above 16 years.

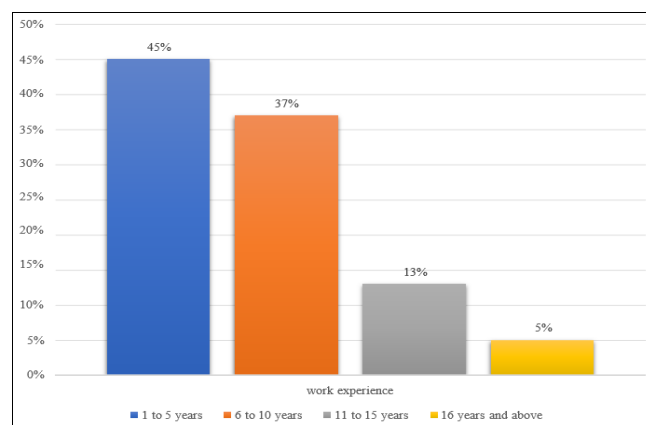


Fig 7: Distribution of School Teachers According to Work Experience

Table 9: Distribution of School Teachers According to Previous Knowledge Regarding Autism (N=60)

Demographic variables	Category	No of subjects (N)	Percentage %
Previous Knowledge Regarding Autism	Yes	4	7
	No	56	93

Table 9 and Fig 8 denotes the previous knowledge of school teachers regarding autism in which 4(7%) had knowledge regarding autism and 56(93%) had no knowledge regarding autism.

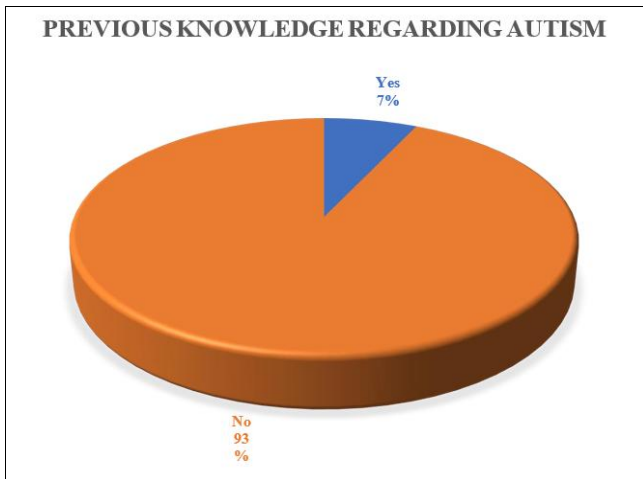


Fig 8: Distribution of School Teachers According to Previous Knowledge Regarding Autism

**Section B: Assessment of the Pre-Test Knowledge of Regarding Autism Among School Teachers**

Table 10: Pre-Test Knowledge of Regarding Autism Among School Teachers (N=60)

Pre Test Knowledge	Frequency	Percentage
Inadequate	48	80
Moderate	11	18
Adequate	1	2

The Table 10 and Fig 9 depicts the distribution of pre test level of knowledge of school teachers regarding autism. Out of 60 school teachers 48 (80%) had inadequate knowledge and 11(18%) had moderate knowledge and 1(2%) of subjects had adequate knowledge.

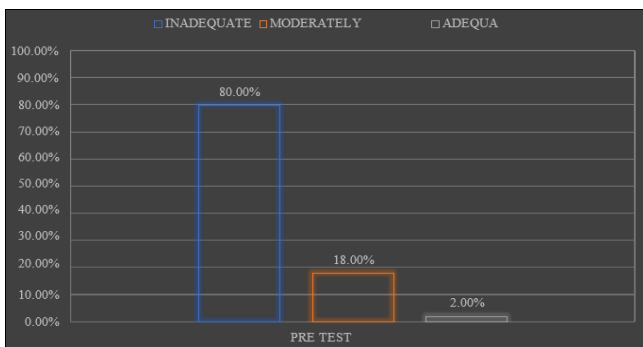


Fig 9: Pre Test Knowledge of School Teachers Regarding Autism

**Section C: Assessment of the Post-Test Knowledge of Regarding Autism Among School Teachers**

Table 11: Post-Test Knowledge of Regarding Autism Among School Teachers (N=60)

Post Test Knowledge	Frequency	Percentage
Inadequate	6	10
Moderately	9	15
Adequate	45	75

The Table 11 and Fig 10 depicts the distribution of post test level of knowledge of school teachers regarding autism. Out of 60 school teachers 6 (10%) had inadequate knowledge and 9(15%) had moderate knowledge and 45(75%) of subjects had adequate knowledge.

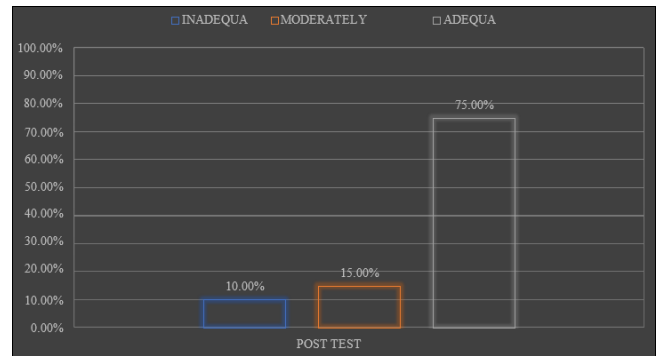


Fig 10: Post Test Knowledge of School Teachers Regarding Autism

**Section D: Effectiveness of Structured Teaching Programme Among the School Teachers**

Table 12: Effectiveness of Structured Teaching Programme Among the School Teachers (N=60)

Knowledge	Mean	S.D	Paired 't' Value t = 38.156*** p = 0.001, S
Pretest	4.22	3.05	
Post Test	24.2	1.88	

\*\*\*p<0.001, S – Significant

Table 12 describes comparison of pre and post test level of knowledge of school teachers regarding autism. With regard to knowledge the pretest mean score was 4.22 with S.D of 3.05 and the post test mean score was 24.20 with the S.D of 1.88. The paired' test showed 't' value, t =38.156\*\*\* and p = 0.001. This showed a significant improvement in the knowledge of school teachers regarding autism. The overall comparison of pre test and post test showed a significant improvement in the level of knowledge of school teachers after the implementation of the structured teaching programme.

**Section E: The Association between the Pretest Knowledge Scores and Selected Demographic Variables**

Table 13: Association between the Pretest Knowledge Scores and Selected Demographic Variables N=60

Demographic Variables	Category	df	χ2	Significant/ non Significant
Age Years	20-25 Years	3	0.14	NS
	26-31 Years			
	32-39 Years			
	Above 40 Years			
Gender	Male	1	0.36	NS
	Female			
Educational Qualification	Teachers Training Programme	3	0.24	NS
	B.E.d			
	M.E.d			
	Other			
Monthly Income	Less Than Rs.10000	3	0.89	NS
	Rs.10001 TO Rs.15000			
	Rs.15001 TO Rs.20000			
	Rs. 20001 and above			
Work Experience	1-5 Years	3	0.62	NS
	6-10 Years			
	11-15 Years			
	16 Years and Above			
Previous Knowledge Regarding Autism	Yes	1	0.12	NS
	No			

S = Significant NS = Non Significant

Table 13 shows that there is no association with any of the demographic variables with pre test knowledge scores.

### Discussion, Summary, Conclusion, Implications, Limitations and Recommendation

The present study was intended to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Autism among school teachers in selected schools in view to develop an information booklet. In order to achieve the objectives of the pre experimental design was adopted and convenient sampling technique was used to select the sample. The data was collected from 60 respondents by using a questionnaire over a period of 4 weeks.

Findings of the study: The findings were discussed under the following headings, demographic characteristics, objectives and testing of hypothesis.

#### Objectives of Study

- Primary objective: To assess the pre-existing knowledge regarding Autism among school teachers in selected schools.
- Secondary objective: To Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Autism among school teachers in selected schools.
- To find out an association between the pre-test level of knowledge score with selected demographic variables.

#### Hypothesis

H1: There will be a significant difference between pretest and post-test knowledge regarding Autism among school teachers in selected schools.

H2: There will be a significant association between knowledge regarding Autism among school teachers and selected demographic variables.

Frequency and percentage of samples based on demographic variables:

- The table 4 and Fig 3 shows that with respect to age of school teachers 14(23%) were of age 20 to 25 years, 21(35%) were of age group 26 to 31 years, 20(33%) were of age group 32 to 39 years and 5(8%) were above 40 years.
- Table 5 and Fig 4 denotes that for gender of school teachers 14(23%) were male and 46(77%) were females.
- Table 6 and Fig 5 denotes that with respect to educational qualification 11(18%) had done teachers training programme, 16(27%) had done B.E.d, 24(40%) had done M.E.d and 9(15%) had done other education.
- Table 7 and Fig 6 denotes the monthly income of school teacher in which 9(15%) had income less than Rs. 10000, 18(30%) had income ranging between Rs.10001 to Rs.15000, 23(38%) had income between Rs. 15001 to Rs.20000, and 10(17%) had income above Rs. 20001.
- Table 8 and Fig 7 shows that with respect to work experience 27(45%) had 1 to 5 years experience, 22(37%) had 6 to 10 years experience, 8(13%) had 11 to 15 years experience and 3(5%) had experience above 16 years.
- Table 9 and Fig 8 denotes the previous knowledge of school teachers regarding autism in which 4(7%) had

knowledge regarding autism and 56(93%) had no knowledge regarding autism.

#### The first objective was to assess the pre-existing knowledge regarding Autism among school teachers in selected schools

The Table 10 and Fig 9 depicts the distribution of pre test level of knowledge of school teachers regarding autism. Out of 60 school teachers 48 (80%) had inadequate knowledge and 11(18%) had moderate knowledge and 1(2%) of subjects had adequate knowledge.

The findings were supported by Bakken J et al assessed the caregivers awareness of nursing interventions for homecare management of Autistic children. Among the knowledge and attitude of 24 caregivers were assessed through self structured questionnaire. The study revealed that 71% had moderately adequate knowledge and 63.2% of caregivers had favourable attitude towards the homecare management of Autistic children among the caregivers.

The findings were supported by another study by Lappert et al assessed the effectiveness of home based programme on homecare management of Autism among 122 caregivers. The results showed that the program had positive effect on improving knowledge of the caregivers.

#### The second objective was To Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Autism among school teachers in selected schools

**H1: There will be a significant difference between pretest and post-test knowledge regarding Autism among school teachers in selected schools.**

The Table 11 and Fig 10 depicts the distribution of post test level of knowledge of school teachers regarding autism. Out of 60 school teachers 6 (10%) had inadequate knowledge and 9(15%) had moderate knowledge and 45(75%) of subjects had adequate knowledge.

Table 12 describes comparison of pre and post test level of knowledge of school teachers regarding autism. With regard to knowledge the pretest mean score was 4.22 with S.D of 3.05 and the post test mean score was 24.20 with the S.D of 1.88. The paired 't' test showed 't' value,  $t=38.156^{***}$  and  $p=0.001$ . This showed a significant improvement in the knowledge of school teachers regarding autism. The overall comparison of pre test and post test showed a significant improvement in the level of knowledge of school teachers after the implementation of the structured teaching programme. **Therefore H1 was accepted.**

The findings were supported by Suzanne A Denhamto conducted a pre experimental study to assess the effectiveness of video assisted teaching for caregivers regarding attitude of caregivers on homecare management of Autistic children. Among 150 caregivers reported an increase in self reported knowledge from 52% in the pretest towards their role in homecare management of Autistic children which is improved up to 81% which exhibited more likely attitude towards their role in homecare management of Autistic children.

The findings were supported by Zanni G R who conducted an explorative study assessed the effectiveness of self prepared module on educating caregivers towards homecare management of Autistic children. 422 caregivers prepared them self structured knowledge and attitude scale towards

and attended single education session on homecare management of Autistic children. The results showed that there was a significant improvement in the knowledge and attitude of the caregivers.

**The third objective was To find out an association between the pre-test level of knowledge score with selected demographic variables**

**H2: There will be a significant association between knowledge regarding Autism among school teachers and selected demographic variables.**

Table 13 shows that there is no association with any of the demographic variables with pre test knowledge scores.

**Therefore H2 was Rejected.**

The findings were supported by Ogletree B T found that caregivers who are more aged have had more exposure and had more opportunities to be confronted with Autism children than caregivers with less age. The study concluded that caregivers who are aged will be more knowledgeable about homecare management of Autistic children than the caregivers with less experience.

The study conducted by Mavundla found that caregivers who are handling young children may be less knowledgeable about the homecare management of Autism than caregivers with aged children. The study revealed that because caregivers with young children may not have good exposure as often with caregivers with aged children.

### Summary

Autism children are a burden to the caregivers as well as to the family members. Family having Autistic children faces a lot of psychological, economical, social and practical problems in management of those children at their home. They require more care by the family members especially by the teachers. Hence it is essential to educate the teachers to give more support to the Autistic children. These children can be helped through teachers by providing proper training. Autistic children in doing their daily activities can enhance the independent living.

### Conclusion

The researcher throughout the study aimed at assessing the A Study to Evaluate the Effectiveness of Structured Teaching Programme on Knowledge Regarding Autism among school teachers in selected schools in view to develop an information booklet and the study results concluded that there was inadequate knowledge in school teachers in the pretest. However there was a significant improvement in the level of knowledge after the structured teaching programme regarding autism.

### Implications

The investigator has drawn the following implications from the study which is of vital concern for nursing practice, nursing education, nursing administration and nursing research.

### Nursing Service

Nursing practice is one of the evolving areas of nursing practice where a job description of a Nurse still needs to be overlooked. Studies like present helps to boost image of the mental health nurses their own scientific body of knowledge and scope of practice. The primary role of the Nurse is to provide knowledge and enhance a good attitude to school

teachers of autism children. In the community and hospital the nurse can design a protocol for managing autism children and promote adequate management of autism children. The nurse needs to encourage and motivate the caregivers to identify their children's problem and refer them to mental health professionals. The nurse needs to extend the role toward client families and educate them in caring for the Autistic children.

### Nursing Education

- The study implies that, Nurse educators should incorporate the importance of nursing interventions on homecare management of autism children in the curriculum from first year nursing program along with psychology.
- Nurse educators should develop the skill of nursing students in counselling parents about homecare management of autism children.
- Nurse educator should encourage the students to organize community psycho educational programs to create awareness among public regarding importance of management of autism children.
- In-service education, refresher course and training programs on management of autism children should be systematically planned and regularly conducted at various settings.

### Nursing Administration

Nurse administrator should remain updated about management of autism children.

- The nurse administrator should encourage and facilitate the caregivers to update their knowledge and attitude on the aspects of autism children.
- Nurse Managers can strengthen interdisciplinary and multidisciplinary collaboration with researchers.
- The Nurse should organize from various resources to impart the management program to the caregivers with autism children in the schools.
- The nurse administrator can organize conferences, continuing education programs, in service education programs to introduce the needed changes coming up through ongoing scientific research regard to management of autism children.

### Nursing Research

- The findings of the present study serves as basis for other professionals and the student nurses to conduct further studies and to find out the effectiveness of various nursing interventions.
- The nurse scientist should communicate these findings to the public sector so as enhance their knowledge on autism children.

### Recommendations

- The nurse researcher recommends the affiliated institutions to use this selected nursing interventions regarding management of autism children.
- The intervention tool can be utilized by the health care professional, caregivers and also school authorities in their future.
- A comparative study can be done between the rural and urban school caregivers to identify the differences in their knowledge and attitude of autism children among caregivers.

- A qualitative study can be conducted to assess the perception of caregivers regarding of autism children and their role performance in management of autism children among caregivers.

### Limitations

It was difficult for the nurse researcher to obtain setting permission from the special school authorities. Due to time constraints the researcher was not able to include many samples into the study.

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