



# **A study to assess the effectiveness of structured teaching program on knowledge regarding the child with a learning disability and its prevention among parents of school going children selected tertiary care hospital at, Tirupati, Andhra Pradesh**

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**Abstract-** Background: A learning disability is a neurological disorder and children with learning disability are just smart (or) smarter than their peers but may have difficulty in reading, writing, spelling, reasoning (or) recalling and organizing information if taught in conventional ways. One student with a learning disability may not have the same kind of learning problems as another the students with learning disabilities children are not dumb (or) lazy they usually average (or) above-average intelligence. Aim: The study aimed to assess the knowledge of learning disabilities and their prevention among parents of school-going children. Objectives: To assess the level of knowledge regarding learning disabilities and their prevention among parents of school-going children. To find the effectiveness of a structured teaching program regarding learning disabilities and their prevention among parents of school-going children RUYA, Tirupati. To find the association between the pre-test level of knowledge regarding learning disabilities and their prevention among parents of school-going children with socio-demographic variables. Methodology: A quantitative evaluative approach and research design was one group pretest and posttest design. The sample size was 30 parents under 55 years parents of school-going children admitted to the Pediatric ward at RUYA Hospital, Tirupati was selected using the non-probability convenience sampling method. Results: The post-test knowledge score of 17.36 was higher than the mean pretest knowledge score of 9.36. The calculated paired t-test = 12.37, p = 2.05 at the level of 0.05. t > p, so it is significant. The result of the study showed that there is a significant improvement in the knowledge of parents after giving the teaching. parents of school-going children gain knowledge regarding learning disabilities and their prevention.

**Keywords-** Knowledge, learning disabilities, parents of school-going children.

## **I. Introduction**

Learning is the acquisition of knowledge and skills through study and experience. Disability refers to the condition where an individual is unable to perform a task or function due to physical or mental impairments. A learning disability, specifically, is characterized by the brain's difficulty in processing information, which makes reading or understanding challenging. This neurological condition affects an individual's ability to store and process information, thereby disrupting learning in various areas of life, not just in academic settings. Learning disabilities can range from mild to severe. Individuals with mild learning disabilities might communicate effectively and manage



daily tasks independently but take longer to acquire new skills. Conversely, those with severe learning disabilities may struggle significantly with communication and might have multiple disabilities. While some children with learning disabilities can become quite independent, others require ongoing assistance with everyday activities such as washing and dressing [1].

Common learning disabilities include dyslexia, dyscalculia, dysgraphia, auditory and visual processing disorders, dysphasia, and nonverbal learning disorders. These disabilities are generally lifelong conditions that begin before adulthood. Although the exact causes of learning disabilities are unknown, they are believed to result from neurological differences in brain function. Factors such as illnesses (e.g., meningitis), childhood injuries, cerebral palsy, autism, epilepsy, and multiple profound learning disabilities can also contribute. It is important to distinguish learning disabilities from other disabilities like mental retardation, as the former pertains to specific challenges in learning abilities [2].

Learning disabilities often become apparent when children struggle in school. Parents and preschool teachers are typically the first to notice early signs. Children with learning disabilities may have difficulty with basic skills in reading, writing, math, or language. These disabilities are not always visible and often go undetected, which can make the learning process a painful struggle for both the child and the parents. However, a diagnosis can bring relief as it leads to additional support in schools through specially trained teachers and educational programs designed to meet these children's unique needs [3].

The identification of learning disabilities generally involves assessments to determine a child's intelligence quotient (IQ) and their performance on achievement tests in areas such as reading, math, and language processing. A comprehensive review of the student's educational history is also conducted to rule out other possible explanations for the learning challenges. Early detection and intervention are crucial. Recognizing the signs of potential disabilities and implementing special education programs can help individuals manage and compensate for these disorders, although learning disabilities often persist throughout life. These disabilities can affect school performance, job prospects, independent living, and social relationships [4].

#### **Need For the Study:**

Learning disabilities are neurological disorders affecting children who are often as intelligent, if not more so, than their peers but struggle with tasks such as reading, writing, spelling, reasoning, and organizing information when taught through traditional methods. Each child with a learning disability may face different challenges. These children are not unintelligent or lazy; they generally possess average or above-average intelligence. Globally, many children suffer from learning disabilities. This study aims to identify children with learning disabilities, understand the prevalence of these disabilities, and explore preventive measures [5].

In the United States, approximately 0.9% of the population, including 3.3 million children, are affected by learning disabilities, which significantly impact children with



special health care needs as well as typically developing children. Boys are more frequently diagnosed with learning disabilities than girls [6].

According to the National Institutes of Health (NIH), 7.13% of children in India have learning disabilities, attributed mainly to neurological differences in brain information processing, affecting 30% of girls and 8.7% of both boys and girls with meningitis, 9.0% with early childhood injuries, and 6.0% with cerebral palsy. About 50% of cases are due to hereditary factors and unknown causes, affecting 20% of boys and girls [7].

Assistive technology can significantly aid these children, fostering independence, self-esteem, and reducing anxiety. Bhopal reports the highest prevalence of learning disabilities in India, with 52 out of 333 children enrolled in special education programs [8]. In Andhra Pradesh, an estimated 121,080 children aged 6 to 10 years, or 3.2% of this age group, require special education for learning disabilities [9].

#### **Problem Statement:**

A study to assess the effectiveness of a structured teaching program on knowledge regarding the child with a learning disability and its prevention among mothers of school-going children selected tertiary care hospital at, Tirupati, Andhra Pradesh.

#### **Objectives**

- To assess the pre-test knowledge regarding the child with a learning disability and its prevention among mothers of school-going
- To assess the effectiveness of a structured teaching program regarding the child with a learning disability and its prevention among mothers of school-going
- To find out the association between the pretest knowledge scores of the children with a learning disability and its prevention among school-going children's parents with their selected demographic variables.

#### **Hypothesis**

- **H1-** There is no statistically significant difference between the pretest and post-test knowledge scores after structuring the teaching program regarding learning disability prevention.
- **H2-** There is a significant association between the knowledge score of a school-going children parents with their selected demographic variables.

## **II. Materials and Methods**

**Research approach:** The quantitative evaluative approach was used for the present study.

Research Design Pre-experimental one-group pre-test and post-test design was used for this study.

**SETTING OF THE STUDY** The study was conducted at the Pediatric ward in RUYA Hospital, Tirupati

## **VARIABLES**



**Independent Variables:** In this present study, a structured teaching program on learning disabilities its prevention is an independent variable.

**Dependent Variables:** Knowledge of school-going children's parent regarding learning disabilities and their prevention.

**Demographic variables:** The demographic variable is the factor that is not part of the study but may not affect the measurement of the study variable such as age, gender, income, education, occupation, type of house, and source of health information in adults.

**POPULATION:** The population for the present study was school-going children's parent

**Target population:** The present study was all parents of school-going children admitted pediatric ward of Ruya Hospital the target population in this study

**Accessible population:** All parents of school-going children at RUYA Hospital, Tirupati who fulfilled the inclusion criteria.

**SAMPLE:** The sample of the present study was 30 parents of school-going children who fulfilled the sampling criteria for the present study.

**SAMPLING TECHNIQUE:** The present study's Non-probability convenience sampling technique was adapted for the study.

### **SAMPLING CRITERIA**

#### **INCLUSION CRITERIA**

This study includes—

- Parents of school-going children (6-12 yrs) admitted at RUYA hospital, Tirupati.
- Parents of school-going children willing to participate in the study.
- All adults will be available at the time of data collection.

#### **EXCLUSION CRITERIA**

This study excluded—

- Parents of school-going children who are not willing to participate in the study.
- Parents of school-going children who are critically ill.

### **III. Method of data collection tools**

#### **Description of the tool**

- **Part I:** Socio-demographic variables: It includes the age of the child in years, class, religion, educational qualification of parents, family income, and source of information.
- **Part II:** Consists of 30 multiple choice questions to assess the knowledge regarding learning disability and its prevention.

Table 1 Score Interpretations Level of knowledge Score .

Good knowledge	20-30
Average knowledge	15-22
Poor knowledge	<15



#### IV. Data Collection Procedure

The data collection was scheduled. Before the data collection, formal permission was taken from the Medical Superintendent, and the HOD of the Peadtricts department was obtained to conduct the main studying RUYA Hospital. Written consent was taken from the parent's samples nature and purpose of the study were explained to the participants. Confidentiality was maintained through a structured interview schedule data was collected from the subjects. The structured teaching program was implemented after the pretest assessment. The post-test assessment was implemented after 7 days of the structured teaching program.

#### RESULTS

Section -A Table 2 shows Pretest and post-test knowledge scores regarding learning disabilities and their prevention.

Table 2 Pretest and post-test knowledge scores regarding learning disabilities and their prevention..

Knowledge Categories	Pretest (Frequency)	Pretest (%)	Post-test (Frequency)	Post-test (%)
Average Knowledge	16	53.33	18	60
Poor Knowledge	14	46.67	0	0
Good Knowledge	0	0	12	40

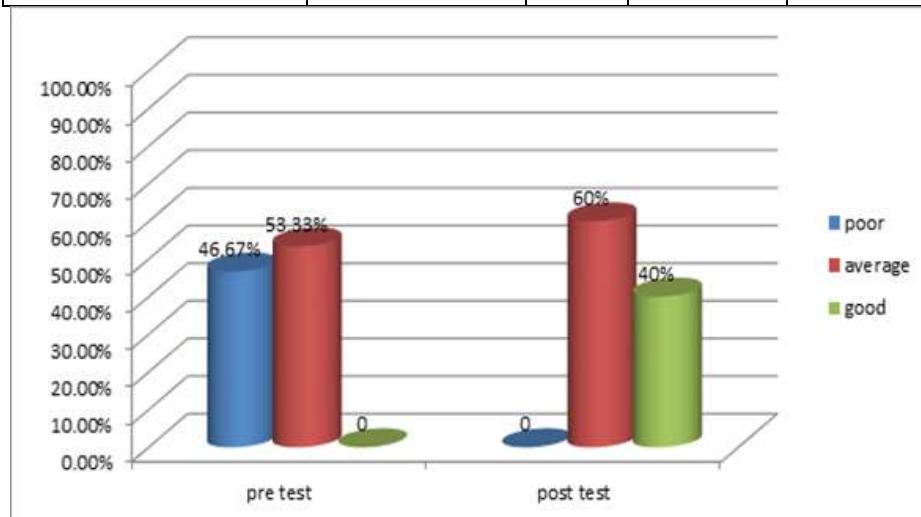


Figure 1 Visualization of the Results of Pretest & Protest.

- **Pretest Knowledge Scores:**
- 16 adults (53.33%) had average knowledge.
- 14 adults (46.67%) had poor knowledge.
- No adults (0%) had good knowledge.



- **Post-test Knowledge Scores:**
- 18 adults (60%) had average knowledge.
- No adults (0%) had poor knowledge.
- 12 adults (40%) had good knowledge.

**Description:** The results show a significant improvement in knowledge regarding learning disabilities and their prevention from the pretest to the post-test. In the post-test, no adults had poor knowledge and the number of adults with good knowledge increased from 0 to 12.

### Section-B

Table 3 shows the Effectiveness of a structured teaching program on knowledge regarding learning disabilities and their prevention.

Knowledge Score	N	Mean	SD	t value
Pretest	30	9.36	3.29	12.37*
Post-test	30	17.36	1.7	

Table 3 Effectiveness of a structured teaching program on knowledge regarding learning disabilities and their prevention.

$$df = 29, P = 2.05$$

The mean total knowledge score before the intervention was 9.36, which increased to 17.36 after the intervention. The paired "t" test (12.37) was found to be significant at the 0.05 level. From the above inference, it is clear that the structured teaching program had a positive impact on knowledge among adults. Hence, hypothesis H1 was accepted.

Section CAssociation of pretest knowledge score with selected demographic variables.N = 30

Table 4 shows the association between the demographic variables and pretest knowledge score of adults on knowledge regarding learning disabilities and their prevention.

Sl. No.	Demographic Variables	Poor	Average	Good	Chi-Square	Df	Inference
1	Age						
	a. 25-35 years	11	11	0	12	4	S at 0.05 level
	b. 36-45 years	2	3	0			
	c. 46-55 years	1	2	0			
2	Gender						
	a. Male	8	12	0	1.07	2	



	b. Female	6	4	0			N.S at 0.05 level
3	Education						
	a. Informal	2	0	0	16	8	S at 0.05 level
	b. Primary	4	3	0			
	c. Secondary	3	4	0			
	d. Higher	0	4	0			
	e. Degree and above	5	5	0			
4	Occupation						
	a. Private	6	7	0	0.57	8	N.S at 0.05 level
	b. Government	0	0	0			
	c. Self Employed	1	1	0			
	d. Agriculture	3	5	0			
	e. Home Maker	4	3	0			
5	Family Income						
	a. > Rs. 5000/-	9	8	0	2	6	N.S at 0.05 level
	b. Rs. 5001-10,000/-	5	5	0			
	c. Rs. 10,001-15,000/-	0	2	0			
	d. Rs. 15,001 or above	0	1	0			
6	Type of Family						
	a. Nuclear	13	11	0	2.11	4	N.S at 0.05 level
	b. Joint	1	5	0			
	c. Extended	0	0	0			
7	Type of House						
	a. Kaccha	6	7	0	0	2	N.S at 0.05 level
	b. Pucca	8	9	0			
8	Source of Health Information						
	a. Newspaper and Magazines	3	2	0	1.92	6	N.S at 0.05 level
	b. Mass Media	7	11	0			
	c. Health Personals	1	3	0			
	d. Friends and Relatives	3					

Table 4 Association between the demographic variables and pretest knowledge score of adults on knowledge regarding learning disabilities and their prevention..

**Major findings of the study:**

- **Pretest Knowledge Scores:** 16 adults (53.33%) had average knowledge 14 adults (46.67%) had poor knowledge. No adults (0%) had good knowledge.
- **Post-test Knowledge Scores:** 18 adults (60%) had average knowledge, No adults (0%) had poor knowledge 12 adults (40%) had good knowledge
- **Description:** The results show a significant improvement in knowledge regarding learning disabilities and their prevention from the pretest to the post-test. In the post-test, no adults had poor knowledge and the number of adults with good knowledge increased from 0 to 12.



- The mean total knowledge score before the intervention was 9.36, which increased to 17.36 after the intervention. The paired "t" test (12.37) was found to be significant at the 0.05 level. From the above inference, it is clear that the structured teaching program had a positive impact on knowledge among adults. Hence, hypothesis H1 was accepted.
- age and education showed significant associations with knowledge levels at the 0.05 level, while other demographic variables did not

#### **Recommendations:**

A similar study can be replicated on a large sample size to generalize the findings.

- A similar study can be done in different settings.
- An experimental study can be conducted to assess the knowledge and practice of learning-disabled children.
- A comparative study to assess the changing student-teacher attitude towards a child with a learning disability in a special school.
- A similar study can be done by the students and the teachers in a special school.

## **V. Conclusion**

The study concluded that the majority of the mothers had positive attitudes towards the child with a learning disability. They exhibit a more favorable attitude towards learning-disabled children. Since the mother's attitude plays an important role in education and the rehabilitation of the disabled child.

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