Effectiveness of Structured Teaching Programme on Knowledge Regarding Learning Disabilities in School Children among Primary School Teachers

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Abstract:-
Background: A pre-experimental studywas conducted to assess the effectiveness of structured teaching programme on knowledge regarding learning disabilities in school children among primary school teachers at selected schools, Sikar district, Rajasthan. A total sample of 60, primary school teachers were selected using non probability purposive sampling technique. The objectives of the study were to determine the level of knowledge regarding learning disabilities in school children among primary school teachers and to find the effectiveness of structured teaching programme regarding learning disabilities in school children among primary school teachers. The final objective was to find out the association between pre-test level of knowledge regarding learning disabilities with their selected demographic variables.

Materials and Methods: A one-group pre-test post-test design was used to conduct the study. A sample comprising of 60 primary school teachers were enrolled using non-probability purposive sampling technique. The conceptual framework of the study was based on Ludwig VonBertalanffy's General System Model. Tools used for data collection were demographic performa and structured knowledge questionnaire.

Results: Data analysis was done using descriptive and inferential statistics. Findings of the study revealed that the mean post-test knowledge score 24.92±1.41 was significantly higher than the mean pre-test knowledge score 15.55±2.05(p<0.05). Paired t value computed at 33.67** was statistically significant at p<0.01.

Conclusion: The findings of the study confirmed that the structured teaching programme was significantly effective in improving the knowledge on learning disabilities in school children among primary school teachers.

Keyword:- Structured teaching programme, Knowledge,Learning disabilities, school children, primary school teachers.

I. INTRODUCTION

Learning disability (LD) refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of skills such as listening, speaking, reading, reasoning, writing or mathematical abilities. These disorders are presumed to be due to central nervous system dysfunction. A child with a learning disability cannot try harder, pay closer attention, or improve motivation on their own; they need help to learn how to do those things[1]. Learning disabilities vary from person to person. One person with LD may not have the same kind of learning problems as another person with LD. Individuals with learning disabilities have normal intelligence but experience problems in academic areas such as reading, writing and mathematics. Often gifted children have unusual learning styles, and even though they are very intelligent, they may also have learning disorders.In India, around 13% to 14% of all school children suffer from learning disorders. Of all students, dyslexia affect 80% of all those identified as learning disabled. The incidence of dyslexia in primary school children in India has been reported to be 2-18%, of dysgraphia14% and of dyscalculia 5.5%[2.] There is a general lack of awareness about Specific Learning Disability (SpLD) in India. Even in the mega cities like Mumbai, Chennai, Bangalore, New Delhi and Kolkata, there are very few clinics for doing the psycho educational testing for diagnosing SpLD; and there is a dearth of remedial teachers. Firstly, awareness of this hidden disability has to be increased and the topic of SpLD should be compulsorily taught to doctors, school teachers, counsellors, and general public during their undergraduate studies. It is known that a supportive environment is one of the factors that can favourably determine the outcome of SpLD in a school-going child.Secondly, an evaluation for SpLD should be considered for all children presenting with learning problems in preschool/school[3]

A survey was conducted to determine the knowledge level of learning disabilities (LD) among 144 teachers in two regular high schools, 38 teachers in two special schools, and 165 pre-service teachers in a teacher education college in a metropolitan city in a southern state in India. One-way analysis of variance (ANOVA) showed that the knowledge level of learning disabilities among teachers working in regular schools was statistically different. The study concluded that teaching experience and familiarity with persons with LD did not affect the knowledge level of the three groups of participants[4.]

A. Objectives of the study
- To determine the level of knowledge regarding learning disabilities in school children among primary school teachers
- To find the effectiveness of structured teaching programme regarding learning disabilities in school children among primary school teachers.
- To find the association between pre-test level of knowledge regarding learning disabilities and their selected demographic variables.

B. Hypothesis
- H_1: There will be significant difference between pre-test and post-test level of knowledge of primary school teachers regarding learning disabilities.
- H_2: There will be significant association between pre-test level of knowledge and selected demographic variables among primary school teachers.

II. MATERIAL AND METHODS

- Research Approach: Pre experimental approach.
- Research Design: One group pre-test – post-test design.
- Population: Primary school teachers
- Settings: Selected schoolsof Sikar district, Rajasthan.
- Sampling Technique: Non –probability purposive sampling technique.
- Sample size: 60primary school teachers.

III. TOOLS AND TECHNIQUE

- **Demographic Performa** was used to collect socio demographic data such as age, gender, religion, qualification, years of experience, previous exposure, and previous source of information.

- **Structured Knowledge Questionnaire** was used to assess the level of knowledge regarding learning disabilities in school children which consisted of 30 items divided in to seven areas (Introduction & definition,

Incidence, Causes,Types, Diagnosis and testing, treatment and intervention)

- **Structured teaching programme (STP)** was administered for a duration of 45 minutes for 60 samples Lecture cum discussion was used as a teaching methodology along with a variety of AV aids including LCD/PowerPoint presentation, Charts, Flash Cards, OHP sheets and video assisted modules.

- **Method of Data collection:**Data was collected for a period of one month [25th March 2013 to 25th April 2013]. After explaining the purpose and obtaining an informed consent, the pre-test was administered for the samples followed by a structured teaching programme. After a period of 07 days a post-test was carried out.

- **Inclusion criteria:**
✓ Primaryschool teachers whowere willing to participate in the study.
✓ Primaryschool teachers who were available at the time of data collection.

- **Exclusion criteria:**
✓ Primaryschool teachers who were sensitized to any research study on learning disabilities for three months.
✓ Primaryschool teachers who were psychologically and physically unfit during the time of datacollection.

- **Statistical analysis:** Both Descriptive and Inferential statistics were used to analyse the data [using SPSS version 20 (SPSS Inc., Chicago, IL)]. Descriptive statistics such as Frequency distribution and percentage were used to describe the socio demographic data and Inferential statistics, paired *t*-test was used to determine the difference between mean knowledge scores before and after the intervention. Chi-square was performed to find out the association between knowledge and selected demographic variables. The level *P* < 0.05 was considered as the minimum accepted level of significance.

IV. RESULTS

A. Section-I: Frequency distribution and Percentage of Sample characteristics

Table 1: Frequency distribution and percentage of primary school teachers according on selected demographic variables.

(N=60)

Demographicvariables	Frequency(f)	Percentage (%)
Agein years		
21-30 Yrs.	12	20
31-40Yrs.	24	40
41-50Yrs.	17	28.33
51-60Yrs.	07	11.67
Religion		
Hindu	22	36.67
Muslim	09	15
Christian	29	48.33

	f	%
Gender		13.4
Male	8	86.6
Female	52	
Qualification		
D.Ed/Tch	55	91.7
BA; BEd	4	6.7
Bsc; Bed	1	1.6
MA;M.Ed	-	-
Msc;Med	-	-
Teaching experience		10
Less than five years	6	13.33
5-10 years	8	23.33
11-15 years	14	53.34
More than 15 years	32	
Previous knowledge		63.33
Yes	38	36.67
No	22	
If yes, source of information		13.16
Teacher training programme	5	15.79
Continuing education programme/Inservice programme	6	42.11 18.42
Mass media	16	10.52
Friends and family	7	
Others	4	
Have you come across any child with learning disabilities?		70
Yes	42	30
No	18	

B. Section-II: Pre-test and post-test level of knowledge among primary school teachers

Table 2: Frequency distribution and percentage of samples according to their pre-test and post-test level of knowledge regarding learning disabilities in school children

(N=60)

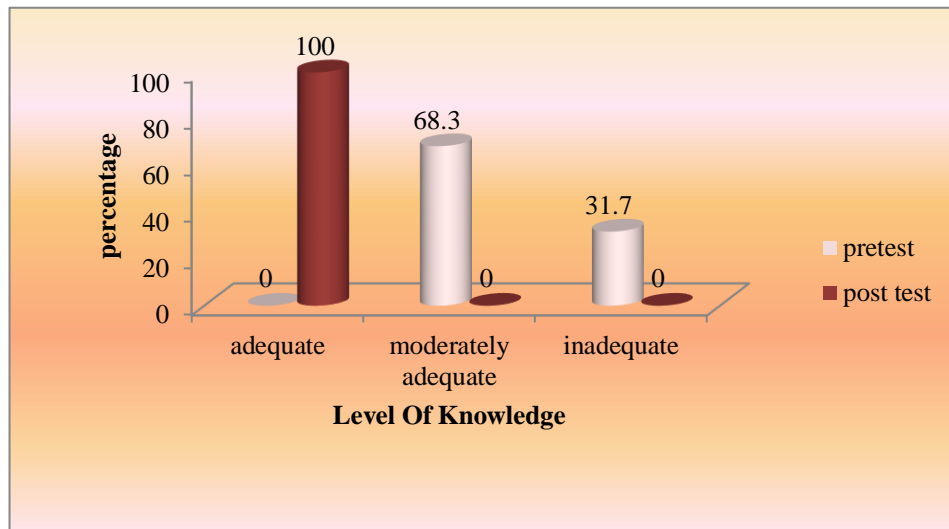| SL.No	LevelofKnowledge	Pre-Test		Post-Test	
		f	%	f	%
01.	Inadequate	19	31.7	-	0%
02.	Moderatelyadequate	41	68.3	-	0
03.	Adequate	0	0%	60	100

Fig. 1: Cylindrical Diagram showing the percentage distribution of samples according to their pre-test and post test level of knowledge regarding learning disabilities in school children.

C. Section-III: Effectiveness of structured teaching programme on knowledge regarding learning disabilities in school children among primary school teachers.

Table 3:Overall Mean, SD, mean percentage and 't' value of level of knowledge among primary school teachers before and after the intervention.

(N=60)

Pre-test			Post test			t value
Mean	SD	Mean %	Mean	SD	Mean%	
15.55	2.05	51.83	24.92	1.41	83..6	33.67**

**Significantat0.01 level.

The above table shows that mean pre-test knowledge score was 15.55±2.05. After the Intervention (structured teaching programme), the mean knowledge score increased to 24.92±1.41. Increase in knowledge score after the intervention was statistically significant (pairedtvalue33.67**, df 59, p<0.01). Hence, the research hypothesis(H1) was accepted.
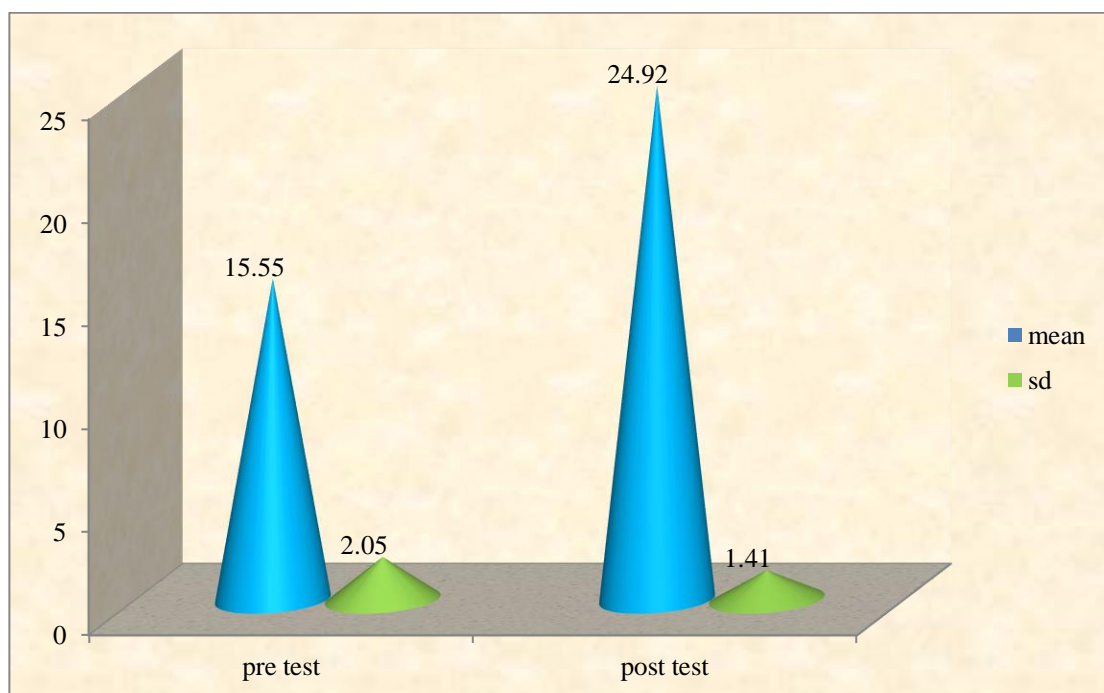

Fig. 2: 3D pyramidal diagram showing difference between mean pre tests and post test knowledge score

Table 4: Area Wise Mean, SD, Mean Difference and 'Paired t value' of level of knowledge among hypertensive patients before and after the intervention

(N=60)

SL NO	Area	Stage	Mean ± SD	Mean Difference	df	Paired t value	P value
01	Causes, incidence	Pre-test	2.75 ±0.91	1.57	59	**13.35****	P<0.01
		Post-test	4.32 ±0.60				
02	Signs and symptoms	Pre-test	7.25 ±1.46	3.98	59	**23.58****	P<0.01
		Post-test	11.23 ±1.84				
03	Diagnosis and management	Pre-test	5.55 ±1.28	3.82	59	**17.67****	P<0.01
		Post-test	9.37 ±1.23				

**Significant at 0.01 level.

Data in Table 04 shows that the mean post test score is higher than the mean pre-test knowledge scores in the area related such as causes and incidence, signs and symptoms and diagnosis and management and is significant at p<0.01

D. *Section-IV: Table 05 Association between the pre-test level of knowledge and selected demographic variables*

(N=60)

SL. No	Demographic Variables	Total score		χ^2	Level of significance
		Inadequate	Moderately adequate		
1	**Age (In years)**				
A	20-30	3	9	0.091	NS
B	31-40	8	16		
C	41-50	5	11		
D	51-60	3	5		
2	**Religion**				
A	Hindu	9	13	0.62	NS
B	Muslim	8	21		
C	Christian	2	7		
3	**Gender**				
A	Male	1	7	0.711	NS
B	Female	18	34		
4	**Qualification**				
A	D.Ed/Tch	18	37	0.10	NS
B	BA; Bed	1	3		
C	Bsc; Bed	-	1		
D	MA;M.Ed	-	-		
5	**Teaching experience**	18	4		
A	Less than five years	1	5	0.431	NS
B	5-10 years	-	11		
C	11-15 years	-	21		
D	More than 15 years				
6	**Do you have knowledge regarding learning disabilities**			0.08	NS
A	Yes	8	30		
B	No	11	11		
7	**If yes; source of information**				
A	Teacher training programme	1	4	0.31	NS
B	Continuing education	1	5		

	programme/in-service programme				
C	Mass media	4	12		
D	Friends and relatives	1	6		
E	Any other specify……	1	3		
8)	**Have you come across any child with learning disabilities**			0.61	NS
A	Yes	12	30		
B	No	7	11		

NS: Not significant, p>0.05

Data in the table 05 shows that there is no significant association between pre-test knowledge score and demographic variables. Hence null hypothesis was accepted and research hypothesis was rejected i.e., there is no significant association between the pre-test and demographic variables.

V. DISCUSSION

The findings in the present study revealed that the mean post-test knowledge score 24.92 ± 1.41 was significantly higher than the mean pre-test knowledge score 15.55 ± 2.05 (p<0.01). Paired t value computed at 33.67** was statistically significant at p<0.01. The paired t value [33.67** df=59] computed by comparison of the mean pre-test and post-test knowledge scores was statistically significant at P<0.01 level. Therefore, it is interpreted that Structured teaching programmewas significant in improving the knowledge regarding learning disabilities of school children among primary school teachers.A descriptive co relational study was conducted in Mangalore to assess the awareness of learning disabilities and coping strategies adopted by school teachers in selected institutions. The sample for the study comprised of 100 upper primary school teachers. The study showed that 94%of the subject had moderate level of awareness, 6% had low level of awareness. Regarding coping strategies 81% had highly favourable coping and 19% had less favourable coping. The study concluded that there was negative relation between awareness of learning disabilities and coping strategies adopted by school teachers.[5]

VI. CONCLUSION

The study was conducted to assess the effectiveness of structured teaching programme on knowledge regarding learning disabilities in school children amongprimary school teachers. The results of the study undoubtedly confirm that the post-test knowledge score is significantly higher than the pre-test knowledge score. Therefore, it is concluded that STP is significantly effective in enhancing the knowledge level regarding learning disabilities in school children among primary school teachers.

A. Limitations
- The study was confined to specific geographical area, which imposed limits on generalization
- The limited sample size caused limit on generalization of the study findings
- The findings could be generalized only to that population, which fulfilled the criteria in the study
- No follow-up was made to measure the retention of knowledge.

B. Recommendations
- A descriptive study can be conducted to identify the prevalence of learning disabilities
- The study can be repeated on a larger sample to generalize the findings
- A comparative study can be conducted to assess the knowledge of primary school teachers regarding learning disabilities in school children in urban and rural areas.

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