

Original Research Article

Effectiveness of awareness lecture in improving the knowledge about learning disability among primary school teachers

Basim Ali C. T., Fysal N.*, Akhila Thasneem A., Aswathy P. S.

Department of Paediatrics, MES Medical College, Perinthalmanna, Kolathur, Kerala, India

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*Correspondence:

Dr. Fysal N,

E-mail: drfysaln@gmail.com

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ABSTRACT

Background: This study was done to assess the pre-existing knowledge about Learning Disability (LD) among primary school teachers and the effect of awareness lecture on improving their skills in early identification and remediation of LD among children having poor scholastic performance.

Method: The study was conducted as a part of the IAP state President's action plan 2018-2019 "VIBGYOR". The study sample consisted of 709 primary school teachers of government schools in Malappuram district in Kerala. The teacher's knowledge level on LD was assessed using a questionnaire following which an awareness class was given. Their knowledge level was assessed again at the end of the class.

Results: There is a significant increase in knowledge level about learning disability among the teachers after the awareness lecture (p value<0.001).

Conclusion: This study implicates the need for intensive training programmes to primary school teachers on learning disability so as to identify it at an early stage among children with poor scholastic performance.

Keywords: Dyslexia, Knowledge, Learning disability, Scholastic

INTRODUCTION

Learning Disability (LD) is one of the most important causes of poor scholastic performance among school going children. The lack of awareness and basic knowledge about LD among primary school teachers are the biggest hurdles to identify this problem in children of developing countries like India. Along with this, inadequate human resources and improper infrastructure make this common neuro developmental problem akin to hypertension, seen only as a tip of an iceberg, rarely identified and corrected. Early identification and intervention by proper remedial measures can go a long way in improving the quality of academic skills among children with LD.

The term learning disability was first coined in 1963 by Dr. Samuel Kirk, a psychologist while delivering a speech at an education conference held in Chicago.¹ He had worked extensively with many students who were repeatedly failing in their examinations but were clearly not retarded. He observed that these so called scholastically backward students could be helped by specific methods of teaching.² Poor school performance

or scholastic backwardness is estimated to affect one in every five school children in India.³ Specific learning disabilities are recognized as an important cause for the scholastic backwardness even though many other reasons such as below average intelligence, vision and hearing impairment, chronic medical and mental disorders, emotional problems and poor socio cultural

environments are also suggested.⁴ Undetected and unmanaged special learning disability results in chronic scholastic backwardness ensue school drop outs, emotional and behavioural problems such as depression, substance abuse and social delinquency.³⁻⁹

METHODS

This interventional study was conducted among the primary school teachers of government schools in Malappuram district, Kerala, India from April 16 2018 to May 20, 2018. Convenient sampling method was adopted. The study sample consisted of 709 primary school teachers. Permission to collect data was taken from the relevant Block resource centres (BRC) in Malapuram district.

Inclusion criteria

All teachers who were attending the training program.

Exclusion Criteria

Teachers who have already attended BRC training classes on Learning Disability

Initially a test was conducted using a questionnaire following which we conducted an awareness class for 1 hour which focused on concepts about LD, some myths regarding it, tips to identify affected children earlier and steps to support them. Then a post test was conducted based on the class to assess the effectiveness of the training session.

Statistical analysis

Authors performed statistical analysis using excel. SPSS trial version 22 and Paired T test was used to compare baseline data with post intervention data. P value less than 0.05 was considered significant.

RESULTS

Among 709 study sample,56% were female and 44% were male.

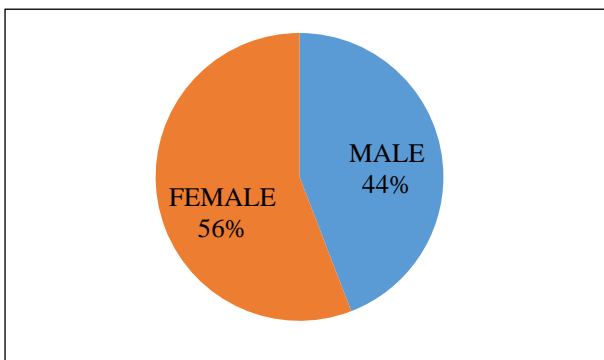


Figure 1: Gender distribution of study population.

Mean score attained by the teachers significantly improved following the awareness class.

Table 1: statistical analysis of the effect of awareness class in the knowledge level among teachers.

	Total Pre	Total Post
Mean	7.43	10.3
N	709	709
Std. Deviation	2.179	2.783
Std. Error Mean	0.082	0.105
t value	27.346	
p value	<0.001	

*paired t test, significant at 99% confidence level

Table 2: scores attained by teachers before and after the awareness class.

	Total Pre	Total Post
N	709	709
Minimum	0	0
Maximum	14	16
Mean	7.43	10.3
Std. Error	0.082	0.105
Std. Deviation	2.179	2.783
Variance	4.748	7.744

There is significant increase in knowledge about LD among the teachers after the awareness class shown by an increase in score attained by them

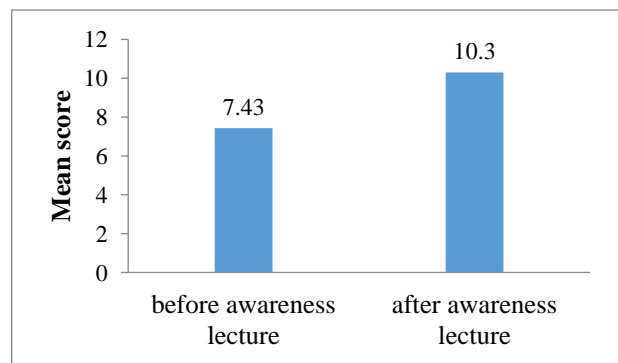


Figure 2: Mean score attained by teachers before and after attending the awareness class.

Among the study population 278(39.2%) had no knowledge about the causes of poor scholastic performance, whereas 42 % of them answered one, 14% answered two and only 2% of the participants could answer five causes of poor scholastic performance. (Table 3)

After the training 160 participants (22.6%) still couldn't recollect the causes of poor scholastic performance, while 27.2% answered one, 18.2% answered two and 5% of the participants answered five causes correctly. Before training only 4.7% of the participants could identify 3 or

more causes of poor scholastic performance but after the training 32% of the participants were able to identify 3 or

more causes, demonstrating an increase in awareness among participants.

Table 3: Major causes of Poor scholastic performance.

#Correct Cause	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	278	39.2	160	22.6
1	298	42	193	27.2
2	100	14.1	129	18.2
3	26	3.7	105	14.8
4	5	0.7	82	11.6
5	2	0.3	40	5.6
Total	709	100	709	100

Table 4: Most commonly observed LD.

Q2	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	657	92.7	467	65.9
1	52	7.3	242	34.1
Total	709	100	709	100

Table 5: Hormone essential for mental growth.

Q3	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	648	91.4	240	33.9
1	61	8.6	467	65.9
Sub-Total	709	100	707	99.7
Missing	-	-	2	0.3
Total	709	100	709	100

Table 6: Relation between LD &intellectual disability.

Q4	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	113	15.9	140	19.7
1	596	84.1	569	80.3
Total	709	100	709	100

Before training only 7.3 % of the participants were able to answer correctly that Dyslexia was the most common learning disorder. After the training session this increased multi-fold to 34.1% (Table 4).

Only 8.6% of the participants could state that “Thyroid Hormone” is the most essential hormone for mental growth. But after the class 65.9% could respond to it correctly (Table 5).

Out of 596 (84.1%) participants correctly mentioned that learning disability is not due to intellectual disability. But, after training this slightly reduced to 569 (80.3%),

displaying that though more than 4 in 5 participants still correctly understood this concept, the training could still have improved in clarifying this important aspect (Table 6).

Out of 505 (71.2%) teachers believed that Learning Disorder was not caused due to impairment in Communication skills. But after the Training session this understanding slightly reduced to 496 (70%) participants, displaying that though 70% of the participants still correctly understood this concept, the training could still improve on explicitly clarifying this important concept (Table 7).

Three-fourths (75.3%) of the study population correctly stated that Learning Disability is treatable. After the

Training session this awareness was increased to 84.3%. (Table 8).

Table 7: Is Learning disorder due to impairment in communication skill?

Q5	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	204	28.8	213	30
1	505	71.2	496	70
Total	709	100	709	100

Table 8: Is LD treatable?

Q6	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	175	24.7	111	15.7
1	534	75.3	598	84.3
Total	709	100	709	100

Table 9: Higher education possible or not.

Q7	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	94	13.3	56	7.9
1	615	86.7	653	92.1
Total	709	100	709	100

Table 10: Should students with LD sent to “Special Schools”?

Q8	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	151	21.3	110	15.5
1	558	78.7	598	84.3
Total	709	100	708	99.9

Table 11: Should children with LD be given more time for writing an exam?

Q9	Pre-Training		Post- Training	
	Frequency	Percentage(%)	Frequency	Percentage(%)
0	137	19.3	58	8.2
1	572	80.7	651	91.8
Total	709	100	709	100

Table 12: Association between LD and ADHD.

Q10	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	304	42.9	182	25.7
1	405	57.1	527	74.3
Total	709	100	709	100

A significant majority of the participants (86.7%) believed that Children with Learning Disability could

enroll for higher studies. Following the training this understanding was increased to 92.1%. (Table 9)

A decisive majority (78.7%) of the respondents felt that students with learning disability did not need “Special Schools” for education. After the awareness lecture this understanding further increased to 84.3%. (Table 10)

Before training, almost 4 in 5 (80.7%) of the respondents felt that students with learning disability should be given

more time to complete their exams. After the training session this increased to 91.8%. (Table 11)

Before training, more than half of the participants (57.1%) answered that there was a relation between learning disability and ADHD. After the Training session this understanding further increased to 74.3% (Table 12).

Table 13: Is anxiety more commonly observed in children with LD?

Q11	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	184	26	93	13.1
1	525	74	616	86.9
Total	709	100	709	100

Table 14: Average IQ of a person.

Q12	Pre-Training		Post- Training	
	Frequency	Percentage (%)	Frequency	Percentage (%)
0	470	66.3	117	16.5
1	239	33.7	592	83.5
Total	709	100	709	100

Almost three quarters (74%) of the participants correctly stated that there was an increased incidence of anxiety among children with learning disorder. After the Training session this understanding further increased to 86.9% confirming the impact of training. (Table 13)

Only one-third (33.7%) of the participants correctly answered that the average IQ of a person is between 90 and 110. After the training session this further increased to 83.5% (Table 14).

DISCUSSION

Low level of awareness on LD among schoolteachers were reported by earlier researchers.^{10,11} In other countries, various studies on the subject found that teachers had low to moderate knowledge and awareness about learning disabilities.¹²⁻¹⁴ Few Indian studies have revealed that the teachers had an average level of knowledge about specific learning disabilities, irrespective of their gender and teaching experience.^{15,16}

Furthermore, the teachers’ age, years of teaching experience and the nature of the school were not related to knowledge and awareness about learning disabilities among them.¹⁷ However, teachers with higher education qualifications exhibited better awareness (Dharmaraj, 2000).¹⁸

This study reveals there is a significant increase in knowledge about learning disability among the teachers

after attending the awareness class (p value<0.001). But the training could still improve on explicitly clarifying some important aspects like absence of intellectual disability in children with LD. The study also emphasizes the need for intensive training of primary school teachers about LD and the importance of including basic concepts about common causes of poor scholastic performance in their education curriculum.

Since teachers and parents are the ones who first encounter academic difficulties of children, their knowledge in LD is of utmost importance in order to identify learning disability at the initial stage so as to prevent the incidence of further mental and social damage. Hence it is essential to take necessary steps for proper training of teachers to ensure identification and management of children with learning disability at an early stage. The study shows that as an academic body IAP can be proactive in social issues and can stimulate the members in research activities.

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