

A Cross-Sectional Assessment of Knowledge and Awareness of Public-School Teachers Towards Learning Disability in Children of Dharmapuri District

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Abstract

Introduction: Research suggests that the occurrence of specific learning disabilities in Indian children is on the rise. Most of the existing studies emphasize the importance of teachers' understanding, which is closely linked to the early detection and intervention of these learning disabilities. This study aims to explore the level of knowledge and awareness regarding learning disabilities among educators in the Dharmapuri district of Tamil Nadu, India.

Materials and techniques: The knowledge and awareness of public-school teachers in the Dharmapuri District regarding learning impairments was evaluated using a cross-sectional study methodology. 200 representative participants were found and chosen using a convenience selection technique, and data was gathered using a self-administered structured knowledge and awareness questionnaire.

Results: The level of knowledge on learning disability among children found to be moderate among the majority of the teachers (45%) where a substantially large number of participants showed an adequate level of knowledge (33.5%) and only a small number of participants (21.5%) had an inadequate level of knowledge. A vast majority of participants (73.5%) were aware of learning disability amongst children.

Conclusion: In light of findings, there is a need to spread awareness and knowledge of learning disability among teachers and the government must get involved in raising awareness and knowledge of these types of hidden disabilities.

Keywords: knowledge, awareness, learning disability, school teachers

1. Introduction:

Learning disability is caused due to changes in the structure and function of the brain that leads to difficulty in reading, writing, calculating, speaking, reasoning, learning new things. the term does not include learning problems due to hearing, visual or locomotor handicaps, mental retardation, emotional disturbance, and environmental, cultural, economic disadvantages (1). People with a Learning disability have good knowledge but their perception is different from others. Learning disabilities can affect

individual life and their academic performance. It affects the relationship with family, friends, and the workplace. early intervention is very useful to reduce the severity of the problem. Teachers and parents are playing a major role in the identification and management part(2), if the teacher and parents do not know about learning disability, they punish the children and it possible they are turning in different ways like anti-social behavior or demotivation. Proper Definition of Learning disability was given by (federal register,1977, p.65083) karanth,2002(3). is “a disorder in one or more of the basic psychological process involved in understanding or using language, spoken or written, which may manifest itself in an imperfect ability to listen, speak, read, spell or do mathematical calculation”.

There are several studies were conducted to identify the prevalence rate of learning disability, this study conducted in U. S (NCLD 2012 survey of public perceptions of LD) (4) the total participation was 1,980 adults and selected by random sampling. In its online survey, 12% of the respondents cited having a learning disability and 8% of the parent surveyed had a child with a learning disability and another study which represented 3.08% of the total population have learning disability that study conducted by Padhy SK. (5) In the northern city of India, out of 3600, 1211(33.6%) of children were identified and having the first stage of learning disability risk by teachers. The second stage of screening with the use of SLD-SQ 360 children was found to screen positive the finding is missing out words or sentences while reading, misplacing letter, spelling error while reading and writing. 108 children were confirmed to have learning disabilities on the third stage using BDI. A study conducted in Chennai, India(6) results were found that 16% to 20% of children in city schools have learning disabilities based on a sample of 200 students.

In India some of the study done for identifying knowledge and awareness of learning disability in children among school teacher, in 2015 Syed Arafa(7) conducted a study in Kashmir, India these study results show that majority of a teacher (73.3%) had moderate knowledge on learning disability, (20%) had inadequate knowledge on learning disability and 6.7% of the teacher had adequate knowledge on learning disability, a similar type of study was done in Bangalore, India it's done by Shari M 2015(8) this study revealed that (16%) had adequate knowledge about learning disability, most of the teacher having (59.5%) had moderately adequate knowledge about identification and treatment part and treatment-related aspect (47%), (46.5%) had adequate knowledge about the outcome. The prevalence of learning disability in India is rising and Education is also very important for manage daily activity as it brings a change in the social scenario and developing a healthy nation. proper care and education are the basic rights of every child at the right time(1). Mostly learning disabilities are undiagnosed due to lack of awareness and knowledge in school teachers but that leads to making some problems for children such as demotivating the child, school dropout, poor performance, etc.(9). There is no this type of study was done in Dharmapuri district, why this study focus on Dharmapuri district was According to a census report 2011 published by the government of India for Tamil Nadu government reveals that the literacy rate in Dharmapuri district was very low (68.54%) as comparison to rest of the 31 districts, Literacy is a most important tool for creating human life(10).

Methodology:

The study was a cross-sectional design and the objective was to describe the knowledge and awareness of public-school teachers about learning disabilities among children. This study was conducted in Dharmapuri district., Tamil Nadu. The participation for the current study was 200 government school teachers from the Dharmapuri district. The convenient sampling technique was adopted for selecting a sample for the current study. The public-school teachers who were teaching standards (1 to 12) were selected and willing to participate in the study. The data collection was from May to June 2019, and oral consent was obtained from the participants. Exclusion criteria are Teacher who is absent on the day of data collection and not willing to participate in this study. The investigators developed a closed-ended questionnaire that contains 21 questions. Three dominions were taken Demographic details, Knowledge level, and Awareness level. This questionnaire was create based on the literature review. Each question has 4 options, total 21 items, 8 for demographic details it includes Name, Age, Gender, Experience, Standard of teaching, Designation.10 for knowledge level items and it includes Definition of Learning Disability, Dyslexia, Dyspraxia, Dyscalculia, Dysgraphia, Causes, Symptoms of disability. 3 for awareness level questions items. The questionnaire validity was established by giving in to the experts in the field. A piolet study was conducted in 20 teachers and based on the feedback questionnaire was modified. The scoring procedure for questions was zero for the wrong answer and one for the correct answer. The maximum score for this questionnaire was 10. The response was coded in an excel sheet after data collection, the data analysis was carried based on the topic and objectives, the collected data was analyzed descriptive statistics and non-parametric tests (chi-square test) to assess the current knowledge and awareness of public-school teachers about learning disability. Analyzed were using Mean, Median, Mode, Range, Std Deviation, Mean percentage was calculated for Demographic variable, Karl Pearson's correlation coefficient (chi-square test) was used to find out the relationship between knowledge and awareness and data were presented in form of a table.

Ethical and Cultural Consideration:

Ethical approval was obtained from the ethical committee of SRM School of public health in SRM institute of science and technology. Permission was given from each school headmaster of the Dharmapuri district.

Results:

Teachers background Characteristics: Table 1

Teachers background Characteristics	%	N
Age		
21-30 years	13.0	26
31-40 years	40.5	81
41-50 years	35.5	71
51-60 years	11.0	22
Total	100	200
Sex		
Male	62.5	125

Female	37.5	75
Total	100	200
Designation		
Elementary teacher	39.0	78
Graduate teacher	42.5	85
PG teacher	8.5	17
Other	10.0	20
Total	100	200
Experience (in Years)		
0-5	18.0	36
6-10 years	30.5	61
11-20 years	30.5	61
Above 20	21.0	42
Total	100	200
Standard of teaching		
Elementary level	38.0	76
Secondary teacher	6.5	13
Graduate teacher	41.0	82
Post-graduate teacher	14.5	29
Total	100	200

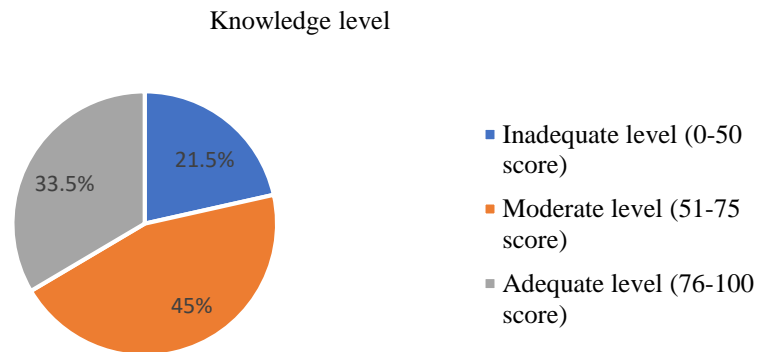
The study results (Table 1) show that most school teachers belonged to the age group 31-40 years (40.5%) and 41-50years (35.5%). Most of the participants were males (62.5%) and female (37.5%), Most (42.5%) were graduates teachers with a qualification of undergraduate level and (39%) were elementary teachers with the qualification of (D.T. Ed) Diploma in teacher education. The majority of a school teacher (30.5%) were having 6-10 and 11-20 years of experience and (21%) were above 20 years of teaching experience. In Standard of teaching most of the participants were belonged to graduate teacher and taught for elementary, secondary and high school but not taught for higher secondary school (41%) and (38%) were the elementary level teacher and taught for 1 to 5 std and (6.5%) were the secondary-level teacher and taught for (6 to 8 std), 14.5% of postgraduate teacher taught for (11 to 12)std.

Descriptive statistics of teacher background characteristics: Table 2

Teachers background Characteristics	Mean	Std. Deviation	Variance	N
Age	2.45	.855	.731	200
Gender	1.38	.485	.236	200
Designation	1.90	.932	.868	200
Standard of Teaching	2.32	1.129	1.274	200
Experience	2.55	1.016	1.033	200

Table 2 shows that school teachers Age Mean and Std Deviation 2.45 ± 0.855 , Gender Mean and Std Deviation 1.38 ± 0.485 , Designation Mean and Std Deviation 1.90 ± 0.932 , Experience Mean and Std Deviation 2.55 ± 1.016 and Standard of teaching Mean and Std Deviation 2.32 ± 1.129 .

Knowledge Scores of public-school teachers: Pie chart 3



To Assess the knowledge level among school teachers regarding learning disability, these 10 items the scoring procedure for questions was zero for the wrong answer and one for the correct answer. The maximum score for this questionnaire was 10, each respondent total score added individually and convert into 100 percentage, knowledge level questionnaire prepared based on the reference it includes a definition of learning disability, cause, a different type of learning disability, definition, and example. Knowledge score was divided into three-part with help of (6) literature review 0 to 50 inadequate level, 51 to 75 moderate level and 76 to 100 adequate level. The study results (Pie chart 3) show that most of the teachers (45%) had moderate level knowledge on learning disability and (21.5%) had inadequate knowledge level on learning disability and (33.5%) of school teachers had adequate knowledge on learning disability.

Awareness Level on public-school teachers: chart 4 and chart 5

The current study (chart 4) was revealed that most school teachers are seen as a child with learning disabilities out of 200, (73%), and Learning disability curable or not (88%) of school teachers reported that yes, it is curable and (12%) reported that not curable.

Chart 4

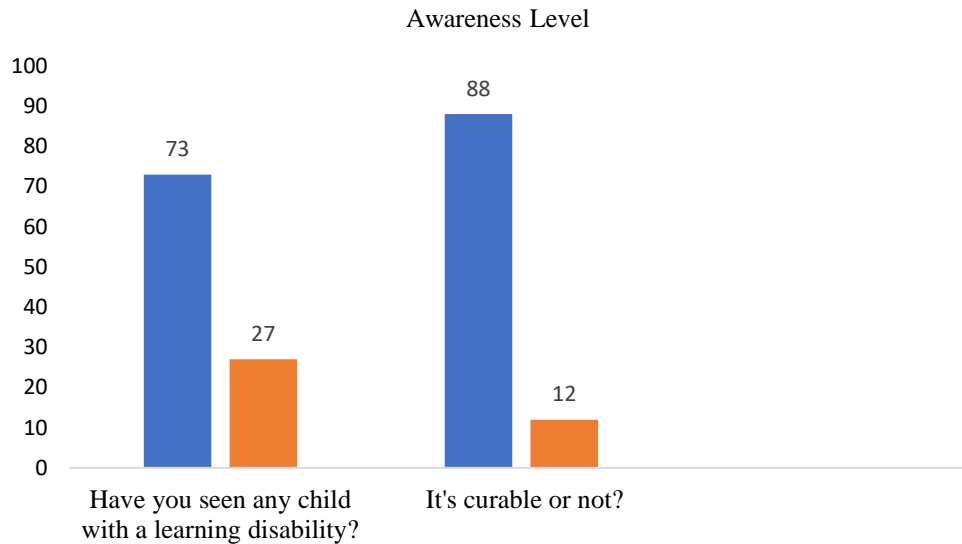
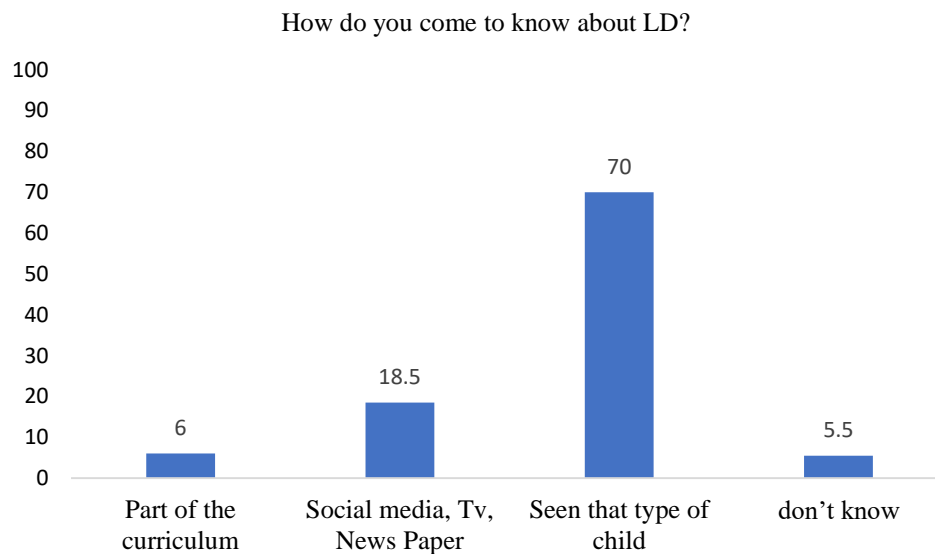


Chart 5



(chart 5) was revealed that most school teachers are reported that how do you come to know about learning disabilities? seen child with learning disability out of 200, (70%), through social media, tv, the newspaper was (18.5%) and only 6% of school teachers express that part of the curriculum.

Correlation of knowledge and awareness about learning disability among public-school teachers:

(Table 6)

Teachers background Characteristics	Chi-square value	Knowledge P value($p \leq 0.05$) Significance	Chi-square value	Awareness P value($p \leq 0.05$) Significance
Age	9.624 ^a	.141	2.662 ^a	.447
Gender	14.556 ^a	.001*	.000 ^a	1.000
Designation	22.106 ^a	.001*	10.333 ^a	.016*
Experience	22.376 ^a	.034*	19.110 ^a	.000*
Standard of Teaching	14.904 ^a	.021*	5.747 ^a	.125

***statistically significant**

The association of knowledge level and school teacher with demographic variable (Age, Gender, Designation, Experience, Standard of teaching) by using chi-square test revealed that statistically significant association was found between (Gender, Designation, Experience, Standard of teaching) with their knowledge level ($p \leq 0.05$). A strong association between Gender and Knowledge level chi-square 14.55, P-value 0.001 and Designation also significantly association between Knowledge level chi-square 22.106, P-value 0.001. Experience and Standard of teaching both were a significant association between Knowledge level. Age and knowledge level were not statistically significant chi-square value 9.624, P-value 0.141.

The association of awareness level and school teacher with demographic variable (Age, Gender, Designation, Experience, Standard of teaching) by using the chi-square test revealed that statistically significant association was found in Designation, Experience with their awareness level ($p \leq 0.05$). A strong association between Experience and awareness level chi-square 19.110, P-value 0.000, Designation between awareness level were significant association were present chi-square 10.333, P-value 0.016 and other teachers background Characteristics were not statistically significant.

Discussion:

The results of the present study show that the Majority of the teachers (45%) had moderate level knowledge on learning disability and (21.5%) had inadequate knowledge level on learning disability and (33.5%) of school teachers had adequate knowledge on learning disability. These study findings are compliant with the descriptive study conducted by Syed arifa, Syed Shahid Siraj et al 2015(7) to assess the knowledge and attitude of teachers about specific learning disabilities among children. This study was conducted among 60 school teachers from 8 selected schools in the district of Pulwama. A convenient sampling technique was used, and data were collected by using the Questionnaire. And study results show that the majority of school teachers (73.3%) had moderate level knowledge of learning disability. These current study findings are conformity to the Knowledge of Primary School Teachers in Identifying Children with Learning Disabilities Shari MI, Mysore Narasimha Vrandha (11). This study was conducted

amongst 200 school teachers from 16 schools in Bangalore, India 2015, results show that most of the teachers (74%) had moderate level knowledge about learning disability. This study reveals that most of the school teachers have some knowledge but not sufficient practice on learning disabilities to handle school children properly. Teachers are more aware and good attitude regarding learning disabilities but inadequate knowledge. So, the teachers should know disability identification and treatment technique detail. Only the teacher and parent can help the child to move to the next level. (12) The present study similar knowledge of specific learning disability among teachers' educators was conducted in union territories in India, twenty-two college of education and 94 teachers' educators were selected with using stratified random sampling and teacher's experience range from one to ten years. That study reported that the teacher has an average level of knowledge about specific learning disabilities.

This current study wants to Implement a certain method to improve teacher knowledge (a) Bachelor of Education (B.Ed.) (13) training program for the teacher in India does not include identification and treatment of the child with learning disability in their curriculum it will improve knowledge and awareness level also and early identification and starting the treatment, (b) Government should conduct a training program for all school at least three to five program per annual for training teacher and parents, (c) Separate curriculum and special educators for treating specific learning disability because education is most important and not able to understand or cover regular curriculum, (d) To create awareness for parents and societies regarding learning disability and Government and private schools should facilitate children with a specific learning disability at the time of admissions at the schools.

Conclusion:

The results of the present study revealed that most of the school teachers had moderate level knowledge about learning disability and majority of the school teacher is seen such type of children in school and teachers need a training program to handle special children because school teacher plays a key role in identification and management part. This most important to include specific learning disabilities (B.Ed.) as a part of the curriculum. Learning disability is a global level problem and lack of awareness and knowledge in teachers, parents in India, if the situation continues means specific learning disability tends to poor perform, school dropout and problems in society so provide better treatment and improve education status of children with a learning disability. Some recommendation has been made for a better understanding of the problem in the community and education system.

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Conflicts of interest:

The authors report no conflicts of interest exist and they are responsible for the content of this article. Informed consent was obtained from all subjects who participated in this study.

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