

ORIGINAL ARTICLE

KNOWLEDGE ON LEARNING DISABILITIES AMONG PRIMARY SCHOOL TEACHERS OF PUBLIC SCHOOLS IN KATHMANDUPoojan Sharma^{1*}, Sarswoti K C²¹Department of Nursing, Manmohan Memorial Institute of Health Sciences, Soalteemode, Kathmandu, Nepal² Curative Service Division, Department of Health Services, Ministry of Health and Population**ABSTRACT**

Introduction: Learning disability (LD) is a group of neurodevelopmental disorder appear during childhood and persists despite normal cognitive abilities, intact sensory abilities, adequate sociocultural stimulation and motivation. As the learning disability is prevalent among children the school teachers have major role in identification of children with learning disabilities and referring them to specific agency. Thus the objective of the study was to assess the knowledge of learning disability among the school teachers.

Method: A descriptive cross-sectional study was conducted among the primary school teachers of Kathmandu metropolitan city. The total teachers of 11 public schools were included in the study. The total sample size was 106. The schools were selected randomly and all the teachers from selected teachers were included in the study. The research instrument was developed by the researcher themselves. Self-administered questionnaire was used in data collection. Data was entered into and analyzed using database created in SPSS. Descriptive and inferential statistics was used in analysis. Ethical approval was taken from NEHCO IRC.

Results: In overall, more than half of the teachers (53.8%) had adequate knowledge on learning disability. Compared to all sub components of learning disability, highest numbers of teachers (71.7%) had adequate knowledge on types followed by on general information (62.3%) and consequences and prognosis (62.3%). However, the least numbers of teachers (50%) had adequate knowledge on management of learning disability. No any socio-demographic characteristics and work related variables found to be associated with knowledge on learning disability.

Conclusion: More than half of the school teachers have adequate knowledge on learning disability. Socio-demographic and work related characteristics of teachers are not associated with the knowledge on learning disability.

Key words: Learning disability; school teachers; public school; Kathmandu

<https://doi.org/10.3126/jmmihs.v9i2.71774>

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Received 4 October 2023; Received in Revised form 24 October 2024; Accepted 26 October 2024

INTRODUCTION

Learning disability (LD), includes a group of neurodevelopmental states that appear during childhood, characterized by persistent difficulties in acquiring effective reading (dyslexia), writing (dysgraphia), or mathematical calculation skills (dyscalculia). These difficulties persist despite normal cognitive abilities, intact sensory abilities, adequate sociocultural stimulation and motivation.¹ In learning disability, the child has severe difficulty in particular areas that are evident on standardized test of achievement, and in spite of adequate therapeutic efforts there may not be any significant improvement.²

An expected 5 to 15% of school-age children have learning disability.³ Since the teachers devote time with students, they can easily identify Learning Disability by detecting academic performances and behaviors.⁴ Early identification of students with Learning Disability should occur during primary classes.⁵ Persons with disabilities are not excluded from the general education system on the basis of disability, and that children with disabilities are not excluded from free and compulsory primary education, or from secondary education, on the basis of disability.⁶ After early identification of learning disability, the teachers can use special educational techniques such as modeling, stations, assistive devices, visual aids etc. for those children. In addition, the teachers can build strong relationships with those students. A student with a learning disability will have it their whole life, but can find strategies to really address the difficulties that they're having academically in school.⁷

Teachers play a pivotal role in identifying and addressing the needs of students with learning difficulties. A deficiency in awareness and understanding of learning disability among teachers impedes the identification of vulnerable children.⁸ Thus the objective of this study was to assess the knowledge regarding learning disabilities and its associated factors among primary school teachers of public schools in Kathmandu.

METHODS

A descriptive cross-sectional study was conducted among the primary school teachers in public schools of Kathmandu Metropolitan city. As per the record provided by education section of Kathmandu Metropolitan city, total 87 public schools were providing primary education.⁹

Out of 87 schools, 11 were selected randomly and all the teachers from selected 11 schools were included in the study to obtain the sample size, i.e. 106. The sample size was calculated using Cochran's formula. The school teachers who were teaching in grade 1 to 5 of public schools in Kathmandu Metropolitan city were the study participants.

Self-developed structured research tool was used. Content validity of the tool was ensured by consulting the psychiatric nurses and mental health researchers along with extensive literature review. The tool was pretested to ensure its reliability. Internal consistency was checked from pre-test data by Cronbach alpha which was 0.73. The number of total questions in the questionnaire were 40. Ten questions were of socio-demographic information and the remaining 30 questions were about the knowledge on learning disabilities in terms of general information, types, risk factors, features, diagnosis, management, prognosis, and consequences.

Before providing questionnaire to the teachers, the researcher briefed about the objective of the study and the content of the questionnaire. Self-administered questionnaire were distributed to the respective school

How to Cite

Sharma, P., & KC, S. Knowledge on Learning Disabilities Among Primary School Teachers of Public Schools in Kathmandu. *Journal of Manmohan Memorial Institute of Health Sciences*, 9(2), 2-4. <https://doi.org/10.3126/jmmihs.v9i2.71774>



teachers by visiting them directly at school. The researcher provided the questionnaire individually to the teachers and they were asked to fill it out without consultation with other teachers and seeking information elsewhere, for instance internet search. They were given required time to fill out the self-administered questionnaire and the researcher collected the questionnaire at the same day of administration. The response rate was 100%. The filled out questionnaire were checked for its completeness. Data were entered into the database created in SPSS. Data cleaning was performed before analysis. Descriptive and inferential statistics were used to analyse the data. The data were checked for normal distribution. It was not normally distributed, thus median score was calculated and the knowledge was categorised as adequate (the total score above and equal to median score), and inadequate (the total score below the median score). Ethical approval was taken from NEHCO Institutional Review Committee (Ref.111/79). Administrative approval was taken from respective school authorities. Written informed consent was taken from the teachers. They were provided with the details of questionnaire and also clarified the teachers' concern in regard to the study. Confidentiality of obtained information was strictly maintained. National ethical guideline for health research 2022 was followed.¹⁰

RESULTS

In regard to the socio-demographic characteristics, the mean age of the school teachers was 43 years. Male and female teachers were in equal numbers. More than three quarter of teachers (83%) belonged to Hindu religion. Almost all (93.4%) were married and 39.6% teachers had completed bachelor level and 38.7% had completed master level education. In work related variables, more than half (50.9%) had more than 15 years teaching experience; 63.2% had exposure to children with learning disability and 97.2% teachers had taken academic related training.

Table 1: Teachers' Knowledge on Learning Disabilities and Domain of Learning Disabilities (LD)

Domain of LD	Inadequate Knowledge	Adequate knowledge	Median	IQR
	n(%)	n(%)		
General Information about LD	66(62.3)	40(37.7)	10	9-12
Types of LD	76(71.7)	30(28.3)	4	3-6
Risk Factors of LD	59(55.7)	47(44.3)	4	2-5
Features of LD	63(59.4)	43(40.6)	12	10-15
Diagnostic measures for LD	58(54.7)	48(45.3)	8	7-9
Management of LD	53(50.0)	53(50.0)	6.5	6-8
Prognosis & Consequences of LD	66(62.3)	40(37.7)	4	3-5
Overall knowledge on LD	57(53.8)	49(46.2)	49	44-53

Table 1 depicts that, overall, more than half of the teachers (53.8%) had adequate knowledge on learning disability. The equal percentage of school teachers had adequate knowledge on general information and prognosis & consequences i.e. 62.3%. Nearly two third school teachers (71.7%) had adequate knowledge on types of learning disability. Half of them had adequate knowledge on management.

Table 2: Association between Level of Knowledge on Learning Disability and Socio-demographic Characteristics

Variables	Knowledge level		Phi & Cramer's V	P value
	Inadequate No. (%)	Adequate No. (%)		
Age			-0.101	0.297
Young Adult	15(39.5)	23(60.5)		
Middle Adult	34(50.0)	34(50.0)		
Sex			0.131	0.176
Male	10 (41.7)	14 (58.3)		
Female	47 (57.3)	35 (42.7)		
Religion			-0.185	0.056
Hinduism	37(42.0)	51(58.0)		
Buddhism	12(66.7)	6(33.3)		
Marital Status			0.094	0.332
Married	47(47.5)	52(52.5)		
Unmarried	2(28.6)	5(71.4)		
Level of Education			0.097	0.608
Intermediate Level	12(52.2)	11(47.8)		
Bachelor Level	17(40.5)	25(59.5)		
Masters Level	20(48.8)	21(51.2)		

Table 2 depicts that socio-demographic characteristics of school teacher had no any significant relationship with their knowledge on learning disabilities.

Table 3: Association between Knowledge Level on LD and Work related Characteristics of School Teachers

Variables	Knowledge level		Phi & Cramer's V	P value
	Inadequate No. (%)	Adequate No. (%)		
Teaching experience			0.181	0.326
1-5 year	5(29.4)	12(70.6)		
6-10 year	7(46.7)	8(53.3)		
11-15 year	8(40.0)	12(60.0)	0.131	0.176
≥15 year	29(53.7)	25(46.3)		
Academic related Training			-0.158	0.103
No	0(0.0)	3(100.0)		
Yes	49(47.6)	54(52.4)		
Previous Exposure to Children with (LD)			-0.40	0.678
No	17(43.6)	22(56.4)		
Yes	32(47.8)	35(52.2)		

Table 3 shows that there is no any significant association of teachers' knowledge on learning disabilities with their teaching experience, academic related training and previous exposure to children with learning disability.

DISCUSSION

The current study showed that 53.8% had adequate knowledge on learning disability. A study conducted in Dharan, Nepal found that 52.67% of the primary school teachers had moderately adequate knowledge on

learning disability.¹¹ A study conducted among primary school teachers in Bangalore city in southern India showed that 5% had adequate knowledge and 74% had moderately adequate knowledge.¹² Another study conducted in Kerala India showed that primary school teachers had moderately adequate knowledge on learning disability.¹³

The current study showed no any relationship of teachers' knowledge on learning disability with socio-demographic characteristics, teaching experience, academic related training and previous exposure, whereas a study conducted in Saudi Arabia showed the significant association between teachers' knowledge on learning disability and socio-demographic characteristics except for sex of the teachers.¹⁴ Another study conducted in Jordan showed no significant differences in knowledge based on demographic variables: age, years of teaching experience, or academic qualifications but found significant association between teachers' knowledge on learning disability and their gender.¹⁵

CONCLUSIONS

More than half of the school teachers have adequate knowledge on learning disability. Compared to all components, highest numbers of teachers had adequate knowledge on types of learning disability and least number was on management. Socio-demographic and work related characteristics of teachers are not associated with the knowledge on learning disability.

RECOMMENDATIONS

The primary school teachers need to be provided with the training on learning disability for early detection and management of child with learning disability, particularly focusing diagnosis and management.

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ACKNOWLEDGEMENT

The authors would like to thank education section of Kathmandu metropolitan office with respective schools' principals for permitting this study. The authors are grateful to the NECHO IRC for providing ethical approval for the study. The authors are indebted to the primary school teachers of Kathmandu metropolis.

AUTHOR CONTRIBUTION

Both authors conceived the study, developed proposal, research tool and conducted the study. The first author involved in data analysis, report writing, manuscript finalization whereas the co-author involved in data collection, data editing, finalization of report and manuscript preparation.

COMPETING INTEREST

The authors declare no competing interest.