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Original Article

Awareness Regarding Learning Disabilities Among Basic Level Teachers in Selected Schools of Pokhara, Nepal

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Abstract

Introduction: Learning disabilities are the disorders that affect the ability to understand or use spoken or written language, do mathematical calculations, coordinate movements or direct attention. It is a developmental disorder seen in children usually recognized in school age. A learning disability may not be curable, but with the right support and intervention, children with learning disabilities can succeed in school and go on to successful, often distinguished careers later in life. The study's objective is to assess the awareness level regarding learning disability among basic level teachers in selected schools of Pokhara.

Methods: A cross-sectional study design was adopted among 128 basic level teachers in schools of Pokhara, Nepal, where a structured knowledge questionnaire was developed focusing on learning disabilities. About four Government school were selected by purposive sampling technique and basic level teachers were selected by total enumeration technique. Collected data were analyzed using the SPSS software version 23. Descriptive (mean, frequency, percentage, standard deviation) and inferential statistics (chi-square) test as per the nature of data.

Results: The present study revealed that slightly more (50.8%) of the respondents had overall low awareness whereas (49.25%) of the respondents had overall high awareness regarding learning disability. There was a statistically significant association between family history, source of information (friend) and level of awareness at the P-value < 0.05.

Conclusion: The result of the present study revealed that the level of awareness about learning disability among basic level teachers is low as none of them had adequate awareness on concept and definition of learning disability. Appropriate training should be provided to the teachers regarding identification, diagnosing and managing the child with learning problems so that child can succeed in school and go on successful careers later in life.

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Introduction

Learning disabilities (LD) are disorders that affect the ability to understand or use spoken or written language, do mathematical calculations, coordinate movements or direct attention. It is a developmental disorder seen in children usually recognized in school age.[1] A LD is a neurological disorder that causes difficulty in organizing information received, remembering it, and expressing it, and therefore affects a person's basic functions such as reading, writing, comprehension, and reasoning.[2] LD is popularly known as dyslexia. LD is perhaps the most common of developmental disabilities in children. It is estimated that 5 to 13% school going children suffer from

scholastic backwardness.[3] According to Learning Disabilities Association of America, there are common five types of learning disabilities - dyslexia (a reading disability or reading disorder), dyscalculia (difficulty in solving arithmetic problems and grasping math concepts), dysgraphia (writing disability), dyspraxia (motor disability) and nonverbal learning disability (trouble interpretation cues like facial expression, body language and poor coordination).[4]

Diagnostic and Statistical Manual of Mental Disorders (DSM-5) estimates the prevalence of all learning disorders (including impairment in writing, reading, and mathematics) to be about 5% to 15% worldwide.[6] and their conditions are more likely to be severe. Approximately 1.3 million children are recipients of Supplemental Security Income (SSI). According to the National Center for Learning Disabilities, around 15% of the U.S. population, or one in seven individuals, has some form of LD. This means that there are around 10 million children and adults in the United States with LD.[7] Among school-aged children, boys are more likely than girls to be diagnosed with LD. The incidence of LD in India is likely at least between 10 and 12% of school going population. This roughly means that in a given Indian classroom there are at least four children with LD.[8]

Children who are affected with LD have considerably low skills according to their age. It creates disharmony in the relation with the teachers, parents and friends. In their preschool years, the children with LD often experience delays attention, language and motor skills which creates distress in the family members as well as in the teachers. In most of the cases the parents and teachers fail to identify the disability in the children.[5] Teachers are the child's first contact after school entry and the ideal person to detect a learning problem. Unfortunately, most either ignore the deficiency or blame it on the child's personality branding it as laziness, an attitude problem or aggression. The child continues to graduate from one class to the other totally inept at handling the pressure of the higher classes. This also leads to behavioral problems. Hence, there is a need to generate awareness regarding the problem amongst teachers.[9]

A quantitative cross-sectional study was carried out to assess knowledge of 150 primary school teachers of Tapi district, Gujarat using non probability sampling technique regarding early identification and management of LD. Self-administered questionnaire was used for data collection. The study revealed that 49.55% had good knowledge about sign and symptoms, 41.11% about definition and prevalence, 34.55% about causes, 31.94% about identification and management and 18.22% had knowledge about types of LD. It is found that there is association of training of teachers with level of knowledge regarding LD.[10] In Nepal, quantitative approach with descriptive cross-sectional design was conducted to assess the knowledge of primary level teachers regarding LD. About 150 teachers of 16 schools of Dharan, Nepal were taken by convenience sampling technique for data collection for which a structured knowledge questionnaire was used. The results showed that only 4% of basic level school teachers have adequate level of knowledge, awareness and understanding about LD.[11] It usually show up when a child has difficulty reading, speaking, writing, figuring out a math problem, communicating with parents or paying attention in class. Children with learning disability can succeed in school and can have successful career in life if right support and intervention is provided to them. Hence, the researcher has conceptualized the present study to assess the awareness regarding LD among the basic school teachers.

Methods

A descriptive cross-sectional study design was adopted to assess the awareness regarding LD among teachers in selected schools of Pokhara, Kaski, Nepal. The study was carried out in four Government schools among total 203 Government school of Pokhara. The school were selected through purposive sampling technique and total enumerative sampling technique was used to select the sample. The study population were 128 teachers from class 1 upto class 8. Teacher who was teaching in both Nepali and English medium classes and teacher who were also teaching 9, 10 class along with Basic level classes were included in the study. Self-administered, structured questionnaire was developed by the researcher by reviewing the related literatures. The research instrument consisted of two parts. Part I: related to socio-demographic data consists like age, gender, religion, ethnicity, educational qualification, teaching experience, identification of child with LD, sources of information and Part II: related to awareness regarding LD consisting of 14 multiple choice questions (MCQs) and eight multiple response questions (MRQs). For each correct answer, 1 mark and 0 mark for incorrect answer. Reliability of the instrument for awareness was calculated by using Karl Pearson's correlation coefficient test by adopting Split Half technique whereas the r value was 0.89 which was considered reliable. Pre-testing of the instrument was done in 10% of the total sample size i.e. 14 in Shree Krishna Secondary School, Pokhara. Data was collected after getting approval from IRC of Pokhara University (i.e. Ref. no.165-079 / 080) and after getting formal permission from selected schools through authorized person. The purpose of the study was explained to the respondents and an informed consent was obtained from each respondent. Questionnaire was distributed to the teacher in staff meeting hall during the leisure hour of the respondents, approximately 25 minutes was provided to answer the question and the questionnaire was collected in the same day. Privacy, confidentiality and anonymity was maintained throughout the study. Data was collected within two weeks (from 2023 Jun

26 to 2023, Jul 10). Following data collection, validation and compilation was done manually on the same day. The data obtained was checked for the completeness, coded efficiently and input into EpiData version 4.6 and exported to SPSS 23 for analysis. Descriptive data was analyzed using mean, frequency, percentage, standard deviation and inferential statistics (chi square) was utilized to assess the association between the level of awareness with selected variables.

Results

Table 1: Socio-demographic variables of respondents (N = 128)

Variables	Frequency	Percent
Age of the respondents		
21 - 30	21	16.4
31 - 40	38	29.7
41 - 50	49	38.3
51 - 60	20	15.6
(Mean ± SD) 41.08 ± 9.311		
Sex of the respondents		
Male	42	32.8
Female	86	67.2
Religion of the respondents		
Hindu	127	99.2
Buddhist	1	0.8
Ethnicity of the respondents		
Brahmin / Chhetri	119	93.0
Dalit	2	1.6
Janajati	7	5.5
Educational qualification of the respondents		
Certificate Level (SLC Pass)	13	10.2
Secondary Level (+2 pass)	9	7.0
Bachelor Level	69	53.9
Master's Level	37	28.9
Involvement in teaching profession		
Below 1 year	2	1.6
1 - 3 years	13	10.2
Above 3 years	113	88.3
Teaching medium of the respondents		
Nepali medium	25	19.5
English medium	36	28.1
Both	67	52.3

Table no.1 shows that out of 128 respondents, majority (38.3%) of the respondents were between the ages of 40 – 50 years with the mean age of 41.08 ± 9 years and least (15.6%) of the respondents were between the ages 51 – 60 years. More than half (67.2%) of the respondents were females. Majority (99.2%) of the respondents belonged were Hindu by religion. Majority (93%) of the respondents were Brahmin / Chhetri. With regard to educational status more than half (53.7%) of the respondents had bachelor degree and very least (7%) had secondary level study. Most (88.3%) of the respondents had teaching experience of more than three years. More than half (52.3%) of the respondents had been teaching in both English and Nepali medium.

Table 2 : Information regarding LD (N = 128)

Variables	Frequency	Percent
Received any training regarding LD		
Yes	34	26.6
No	94	73.4
Any family history of LD		
Yes	9	7.0
No	119	93.0
Seen any child with LD		
Yes	103	80.5
No	25	19.5
Sources of information		
Mass media	58	46.4
Health workers	34	27.2
Curriculum	82	65.6
Friend	64	51.2
Internet	79	63.2
Variables		
Received any training regarding LD		
Yes	34	26.6
No	94	73.4
Any family history of LD		
Yes	9	7.0
No	119	93.0
Seen any child with LD		
Yes	103	80.5
No	25	19.5
Sources of information		
Mass media	58	46.4
Health workers	34	27.2
Curriculum	82	65.6
Friend	64	51.2
Internet	79	63.2

Table 2 represents that majority (73.4%) of the respondents

haven't received any training regarding LD. Similarly, most (93%) of the respondents had no any family history of child with LD. Likewise, around 80.5% had seen child with LD. Majority (65.6%) of the respondents had got the information regarding LD from curriculum and 27.2% had got the information from health workers.

Table 3: Mean score of awareness regarding LD (N = 128)

Awareness	Minimum score	Maximum score	Mean	SD
Awareness score	17	51	31.2969	7.60

Table 3 reveals that the minimum awareness score regarding LD was 17, the maximum was 51, the mean score was 31.29, and the standard deviation was 31.29 ± 7.60.

Table 4 shows that slightly more (50.8%) of the respondents had overall low awareness whereas (49.25%) of the respondents had overall high awareness regarding LD.

Table 4: Distribution of respondents according to the level of awareness (N = 128)

Level of awareness	Frequency	Percent
Low (Mean score < 31.29)	65	50.8
High (Mean score ≥ 31.29)	63	49.25

Table 5 shows that the outcomes of maximum score, mean and SD in overall aspects and also the different domains of awareness. On an overall aspect of awareness, with the maximum score of 53, the mean score was 31.2969 having SD of 10.78. Majority (60.2%) of the respondents had high awareness about role of a teacher whereas nobody had idea about concept and definition regarding LD.

Table 5: Descriptive statistics of domains on awareness questionnaire (N = 128)

Awareness domains	Maximum Score	Level of awareness		Mean	SD
		Low	High		
Concept and definition	11.00	100	0	7.5938	1.68
Incidence and prevalence	2.00	57.8	42.2	0.4766	0.60
Causes and classification	6.00	65.6	34.4	3.1563	1.38
Signs and symptoms	23.00	56.3	43.8	13.4609	4.30
Diagnosis	1.00	80.1	19.5	0.1953	0.40
Role of a teacher	6.00	39.8	60.2	3.9609	1.35
Outcome	4.00	57.8	42.2	2.4531	1.07
Overall	53			31.2969	10.78

Table 6 shows that there was a statistically significant association between family history, source of information (friend) with the level of awareness at the p-value < 0.05.

Table 6: Association of awareness regarding LD with socio-demographic variables (N = 128)

Variables	Level of awareness				Chi-square	p-value
	Low		High			
	N	%	N	%		
Age of the respondents						
21 - 30	9	42.9	12	57.1	4.730	0.193
31 - 40	22	57.9	16	42.1		
41 - 50	26	53.1	23	46.9		
51 - 60	6	30	14	70		
(Mean ± SD) 41.08 ± 9.311						
Sex						
Male	22	52.4	20	47.6	0.250	0.617
Female	41	47.7	45	52.3		
Educational qualification						
Certificate level	4	30.8	9	69.2	4.903	0.179
Secondary level	5	55.6	4	44.4		
Bachelor level	31	44.9	38	55.1		
Master's level	23	62.2	14	37.8		
Involvement in teaching						
Below 3 years	9	60	6	40	0.790	0.374
Above 3 years	54	47.8	59	52.2		
Teaching medium						
Nepali medium	10	40	15	60	1.103	0.576
English medium	18	50	18	50		
Both	35	52.2	32	47.8		
Received any training regarding LD						
Yes	14	41.2	20	58.8	1.198	0.274
No	49	52.1	45	47.9		
Any family history of LD						
Yes	9	100	0	0	9.988	0.0028*
No	54	45.4	65	54.6		
Seen any child with LD						
Yes	50	48.5	53	51.5	0.098	0.756
No	13	52	12	48		

* = significant, p-value < 0.05 is considered statistically significant.

Discussion

The study revealed that most (38.5%) of the respondents were between the age group of 40 - 50 and 30 - 40 years (31.49%). These findings were supported by a study conducted on 200 school teachers in Tamil Nadu, India where the majority of the teachers were from the age group 31 - 40 years (40.5%) and 41 - 50 years (35.5%).[12] Similarly, Arifa S et al also found similar findings where 45% of the respondents belonged to age group 41 - 50 years.[13] Age, sex, marital status, educational qualification, years of experience were significant at 0.05 level of significance. We found that more than half (67.2%) were females and only (32.8%) were males and most (88.3%) of

the respondents had a teaching experience of more than three years. These findings are consistent with a study conducted on 150 primary school teachers in Dharan, Nepal, where 61.3% were females and 68.7% of the respondents had a teaching experience of more than three years.[11] Children with LD can succeed in school and can have successful career in life if right support and intervention is provided to them.

The present study revealed that 26.6% of the respondents had received training regarding LD. These findings were also supported by Alahmandi Na et al who projected that only 14.1% of the respondents had received training regarding LD.[14] This is also consistent with the study conducted on 172 teachers in Quassim, Saudi Arabia where only 14.7% had received training regarding LD.[15] The present study revealed that around fourth-fifth (80.5%) of the respondents had seen child with LD. This is in contrast to Doss et al who reported only (33.3%) primary school teachers had seen a child with LD.[16]

The present study revealed that 50.8% of the respondents had overall low awareness whereas 49.25% of the respondents had high overall awareness regarding LD. This result is also supported by another study conducted on 68 primary school teachers in Haridwar, India where 67% of teachers had no knowledge of LD, 20% teachers had little awareness of LD and 11% teachers knew about the LD satisfactorily.[15] Another study conducted by Shari M et al supports the similar finding i.e. only 5% of the primary school teachers had adequate knowledge about LD.[17] However, Menon et al noted that in Kerala, India, 11.8% had low awareness regarding LDs.[9] The inconsistency might have resulted due to variation in sample size as well as different study designs in different geographic regions.

Present study revealed that there was a statistically significant association between family history, source of information (friend) with the level of awareness at the p-value < 0.05.The finding of the study was not consistent with the finding of study conducted by Dhindsa et al. which showed no association between family history with the level of awareness.[18] The finding of the study was not consistent with the finding of study conducted by Charan GS et al which also showed no statistically association between source of information (friend) with the level of awareness.

The study was confined to the limited schools of Kaski and sample size was small, thus results are difficult to generalize to reflect awareness on LD. Close-ended questionnaire was used for the data collection in the study thus, in depth information from the respondents could not be obtained. However, the findings of the study might be helpful for other researchers as it acts as baseline for other researchers to conduct further studies. The findings could be used to advocate for policy changes or additional resources for schools to better address the needs of students with LD. This research could influence curriculum changes to be more inclusive i.e. curriculum development. The findings of the study might be helpful to identify areas where teachers may lack awareness and tailor teacher training programs to address these gaps.

Conclusions

The conclusions of the study highlights a concerning finding that the level of awareness among basic school teachers regarding LD is low. This implies that a significant portion of basic school teachers may not have a sufficient understanding of LD. Addressing this issue is crucial for ensuring that educators are well-equipped to identify, support, and accommodate students with LD, ultimately fostering an inclusive and effective learning environment. Further research and targeted educational initiatives may be necessary to enhance teacher awareness and knowledge in this important area.

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Conflict of interest

None

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