

Effect of an Information Booklet on the Knowledge and Attitude Regarding Learning Disabilities of Children among the Trainee Teachers of Selected Government Teachers' Training Institutes of Kolkata

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Abstract

With a view to evaluate the effect of an information booklet on the knowledge and attitude regarding learning disabilities of children among the trainee teachers of selected teacher's training institutes, Kolkata, a quasi-experimental study was conducted with pre-test post-test group design. Fifty trainee teachers studying in 1st year of D.El.Ed. each for experimental group and control group were selected by simple random sampling technique. Semi-structured questionnaire on background information of trainee teachers, structured knowledge questionnaire for assessing knowledge and Static instrument were used for assessing attitude towards learning disabled children. The findings of the study revealed significant difference in post-test and pre-test knowledge score of experimental group [t df (49) = 8.28 at $p < 0.001$ level], post-test knowledge scores of experimental group and control group [t df (98) = 8.23 at $p < 0.001$ level]. Post-test attitude score of experimental group was significantly different from pre-test attitude score [t df(49)=3.42 at $p < 0.01$ level]. Significant difference was also found in post-test attitude score of experimental group and control group [t df(98)=5.14 at $p < 0.001$ level].

The quality of tomorrow's world and perhaps its survival will be determined by the well-being, physical and intellectual development of the today's children. As per the census 2011, in India about 13.1 percent of total population comprised of children in the age-group 0-6 years.

It is generally noticed that at least 20 percent of children in a classroom are "scholastically backward". One of the main causes of poor school performance and school dropout is specific learning disability, a broad heading which includes dyslexia, dysgraphia, dyscalculia and dyspraxia, expressive language disorder and rarely motor skills coordination disorders. Current literature indicates that in India 2-18 percent of primary school children suffer from dyslexia, 14 percent from dysgraphia and 5.5 percent from dyscalculia accordingly.

Review of literature

Dhanda & Jagawat (2013) conducted a descriptive

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survey on "prevalence and pattern of learning disabilities in school children on primary school children of Jaipur". Out of 1156 children (boys 668, girls 488, age group 6-13 years), 21.62 percent students had dyslexia, dysgraphia was found in 22.30 percent and dyscalculia was seen in 15.54 percent. Mixed learning disorder was seen in 40.50 percent students.

Shetty & Rai (2014) conducted an evaluative study on "awareness and knowledge of dyslexia among elementary school teachers in India", in Mangalore. Most of the teachers (92.3%) had inadequate knowledge and 16.6 percent were not even aware of the term dyslexia. Most of the teachers didn't receive any prior training and got information from books, through movie, colleagues, television and newspaper.

A quasi experimental study by Narayan et al (2013) on "competency of school teachers regarding learning disabilities" among 38 primary school teachers of Dehradun revealed that 60.52 percent teachers had no previous knowledge, 21.05 percent got the information from media source. The mean of post-test knowledge score was significantly higher [t df(37)=12.8 at $p < 0.05$ level] and the mean post-test attitude score was significantly higher [t df(37)=4.6 at $p < 0.05$ level]. The mean post-test of knowledge of skill scores was significantly higher [t df(37)=4.5 at

p<0.05 level] proving that “Learning Package” was effective in improving the knowledge, attitude and skill-based knowledge of teachers.

Objectives

The study was set with the following objectives:

1. To develop and validate an information booklet regarding learning disabilities of children.
2. To assess the knowledge of trainee teachers regarding learning disabilities of children in experimental group and control group.
3. To identify the attitude of trainee teachers regarding learning disabilities of children in experimental group and control group.
4. To find out the effect of information booklet regarding learning disabilities of children in terms of difference in (a) knowledge score and (b) attitude score between experimental group and control group.

Table 1: Frequency and percentage distribution of background information of trainee teachers in experimental and control group [n=100 (50+50)]

Criteria	Experimental group		Control group	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Age (years)				
17-19	21	42	25	50
20-22	26	52	18	36
23-25	2	4	5	10
26-28	1	2	1	2
>28	nil	-	1	2
Educational qualification				
Higher secondary	29	58	31	62
Bachelor degree	21	42	18	36
Master degree	nil	-	1	2
Any other training	nil	-	nil	-
Interaction with learning disabled children				
Yes	1	2	5	10
No	49	98	45	90
Training on learning disabilities of children				
Yes	1	2	2	4
No	49	98	48	96

Table 2: Frequency and percentage distribution of level of pre-test knowledge score of trainee teachers of experimental and control group n=100 (50+50)

Level of knowledge	Experimental group		Control group	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Poor (<15)	13	26	11	22
Average (15-18)	21	42	15	30
Good (19-22)	15	30	19	38
Very good (23-27)	1	2	5	10
Excellent (>27)	nil	-	nil	-

Hypothesis

H₀₁: There is no significant difference in mean pre-test and post-test knowledge score of trainee teachers regarding learning disabilities of children of experimental group who are exposed to information booklet as measured by structured knowledge questionnaire at 0.05 level of significance.

H₀₂: There is no significant difference in mean post-test knowledge score of trainee teachers of experimental group who are exposed to information booklet and mean post-test knowledge scores of trainee teachers of control group who are not exposed to information booklet as measured by structured knowledge questionnaire at 0.05 level of significance.

H₀₃: There is no significant difference in mean pre-test and post-test attitude score of trainee teachers of experimental group who are exposed to information booklet as measured by Static instrument at 0.05 level of significance.

H₀₄: There is no significant difference in mean post-test attitude score of trainee teachers of experimental group who are exposed to information booklet and mean post-test attitude scores of trainee teachers of control group who are not exposed to information booklet as measured by Static instrument at 0.05 level of significance.

Methodology

Research design: A quasi- experimental research approach, pre-test post-test group design was used.

Variables under study: Independent variable was an information booklet on learning disabilities of children. Dependent variables were (i) knowledge of trainee teachers regarding learning disabilities of children, and (ii) attitude of trainee teachers towards learning disabilities of children.

Setting of the study: The study was conducted at Primary Teacher's Training Institutes (PTTIs) of Kolkata and the population comprised of all trainee teachers studying in 1st year of Diploma in Elementary Education (D El Ed). The sample size was 100 samples - 50 each in experimental group and control group.

Simple random sampling technique was used for selecting the institutes for control group and experimental group out of 9 institutes of Kolkata, following which samples were also selected by simple random sampling on the day study.

Ethical consideration: Ethical permission were taken from all concerned authority and Dr H Keith Cochran for using STATIC (Scale of Teacher's Attitude Towards Inclusive Classroom) and its modification.

Table 3: Range of obtained score, mean, mean difference, standard deviation, SE of mean difference and paired 't' value of pre-test and post-test knowledge scores of experimental group (n= 50)

Knowledge score	Range of obtained score	Mean	M _D	SD	SE	't'
Pre-test	7-23	16.58	5.88	3.23	0.63	8.28**
Post-test	11-29	22.46		3.91		

Maximum possible score = 30, Minimum possible score= 0

**Significant at df (49) = 3.50, p≤0.001

Table 4: Range of obtained score, mean, mean difference, standard deviation, SE of mean difference and unpaired 't' value of post-test knowledge scores of experimental group and control group [n=100 (50+50)]

Group	Range of obtained score	Mean	M _D	SD	SE	't'
Experimental group	11-29	22.46	5.84	3.91	0.98	8.23**
Control group	10-22	16.62		3.17		

Maximum possible score = 30, Minimum possible score= 0

**Significant at df (98) = 3.39, p≤0.001

Table 5 Frequency and percentage distribution of pre-test attitude scores of trainee teachers of experimental and control group [n=100 (50+50)]

Attitude	Experimental group		Control group	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Unfavorable (Mean-1SD)	9	18	6	12
Indifferent (Mean±1SD)	33	66	37	74
Favorable (Mean+1SD)	8	16	7	14

Semi-structured questionnaire was used to collect background information of trainee teachers and structured knowledge questionnaire for assessing knowledge regarding learning disabilities of children. Static instrument to assess attitude towards inclusive education of learning disabled children.

Results

Findings related to development and validation of information booklet regarding learning disabilities of children: Proportion of agreement among experts on validation of content of information booklet showed 100 percent agreement in relation to content, language, presentation, feasibility, practicability and overall organisation of the information booklet, 90.9 percent agreement in relation to logical sequence, self explanatory concepts of the content and use of simple pictures in the information booklet. As per suggestions more pictures were included.

Findings related to background information of trainee teachers: Table 1 shows that 46 percent of trainee teachers belonged to the age group of 17-19 years, 60 percent had the educational qualification upto higher secondary level, 94 percent never had any interaction with learning disabled children, 97 percent had

no training on learning disabilities.

Findings related to knowledge score of trainee teachers regarding learning disabilities of children in experimental and control group: Table 2 depicts that 42 percent respondents of experimental group had average knowledge regarding learning disabilities of children whereas 30 percent respondents of control group had good knowledge.

Findings related to evaluation of effect of information booklet on knowledge score of trainee teachers in experimental and control group: Table 3 indicates that the information booklet was effective in increasing knowledge of trainee teachers in experimental group (p≤0.001).

As revealed from Table 4, information booklet was effective in increasing knowledge of trainee teachers in experimental group, at p≤0.001.

Findings related to attitude score of trainee teachers regarding learning disabilities of children in experimental and control group: Maximum respondents (66%) in experimental group and about three-fourth (74%) in control group had indifferent attitude towards children with learning disabilities (Table 5).

Findings related to effect of information booklet on attitude score of trainee teachers in experimental and control group: Table 6 depicts that information booklet was effective in improving attitude of trainee teachers of experimental group towards children with learning disabilities at p≤0.01.

Table 7 shows that the information booklet was effective in improving attitude of trainee teachers of experimental group in comparison to control group who were not exposed to information booklet at p≤0.001.

Discussion

In pre-test, 42 percent of experimental group had average knowledge, whereas 38 percent in control group had good knowledge regarding learning disabilities. This finding is supported by Kamala (2013), Saravanabhavan, Saravanabhavan (2010). Among respondents 66 percent of experimental group and 74 percent of control group had indifferent attitude towards children with learning disabilities in pre-test, which is consistent with Bano et al (2012) who found that general education teacher's attitude are indifferent towards learning disabled children.

The present study proved that the information booklet was effective in improving knowledge and

Table 6: Range of obtained score, mean, mean difference, SD of differences, SE of mean difference and paired 't' value of pre-test and post-test attitude scores of experimental group (n= 50)

Attitude score	Range of obtained score	Mean	M _D	SD	SE	't'
Pre-test	48-87	67.5	6.6	9.15	2.12	3.42*
Post-test	59-92	74.1		10.17		

Maximum possible score = 100 Minimum possible score= 0

* Significant at df (49) = 2.68, p≤0.01

Table 7 Range of obtained score, mean, mean difference, standard deviation, standard error and unpaired 't' value of post-test attitude scores of experimental group and control group [n=100 (50+50)]

Group	Range of obtained score	Mean	M _D	SD	SE	't'
Experimental group	59-92	74.1	9.4	10.17	3.06	5.14**
Control group	47-87	64.7		8.01		

Maximum possible score = 100 Minimum possible score= 0

**Significant at df (98) = 3.39, p≤0.001

attitude of trainee teachers of experimental group which is supported by the study of Narayan et al (2013) that "learning package" was found to be effective in improving the knowledge, attitude and the skill based knowledge of teachers regarding learning disabilities of children.

Implications

Nursing practice: The content of the information booklet will help nursing professionals working in community for reinforcing their knowledge on management of learning disability. The information booklet can be used to educate the teachers and parents on managing children with learning disability.

Nursing education: The nurse educators need to prepare nursing students to impart knowledge about learning disabilities of children in community.

Nursing administration: Nurse administrator must use multidisciplinary approach for identification and management of learning disabled children.

Nursing research: There is a need for extended and intensive research in this area for educating the family members of children with learning disabilities.

Recommendation

Similar study can be replicated on larger sample to make generalisation. An attempt can be made to assess the knowledge of parents of primary school children regarding learning disabilities.

Conclusion

That information booklet could be used successfully to teach trainee teachers regarding learning disabilities of children.

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