

Effectiveness of an Educational Programme on the Knowledge of Primary School Teachers Regarding Selected Childhood Psychological Problems

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Abstract

Introduction: Primary school children spend a major part of their time in school. Improving the knowledge of teachers will help them in early identification, management and referral of psychological problems among children. Educational interventions are found to be effective in improving knowledge of many populations. Materials and methods: One group pretest posttest design was used for this study. Forty primary school teachers were selected by convenient sampling. Questionnaire on selected childhood psychological problems was the tool for data collection. After the pretest, an educational programme on the childhood psychological problems was given for 2 hours. After 7 days, the posttest was conducted. Results: A significant difference was found in the pretest and posttest knowledge scores, as obtained by the subjects ($p < 0.01^$). Conclusion: Regular educational programs should be conducted in the urban and rural schools so that the teachers identify childhood psychological problems and do the early referral.*

Keywords: childhood psychological problems, Planned Teaching Programme Primary school teachers

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INTRODUCTION

Childhood brings many changes in a child's life. During this time, for children independence from family becomes more important.^[1] American Psychological Association has noted an increase in prevalence of a rate between 17.6 and 22% childhood disorders.^[2] The prevalence of attention deficit hyperactivity disorder is 10–20% among school aged children.^[3] American Psychological Association has reported a prevalence rate of 2–10% of learning disorders in children.^[4] The prevalence of conduct disorder in children between the ages 5–10 years is 1.7% for boys and 0.6% for girls.^[5] Statistics of specific phobias shows a life time prevalence rate of nearly 15.1% among

children of 13–18 years of age.^[6] According to American Psychiatric Association 10–20% of anxiety disorders is seen in children.^[2]

The child shows warning signs of the psychological problems like mood changes, intense feelings, behavior changes, difficulty in concentrating, inexplicable weight loss, physical harm, and substance abuse.^[4] Psychological problems in children are hard to identify. As a result, many children who could benefit from treatment don't get the help they need.

A quantitative study was conducted in Cape Town Metropole on teacher's

knowledge and misperceptions of attention deficit hyperactivity disorder among 824 primary school teachers from 35 schools using knowledge of Attention Deficit Disorder Scale (KADDS). The results showed that the overall percentage of correct response from the teachers was 42.6% – indicating knowledge, 35.4% did not know the response-indicating lack of knowledge while 22% gave incorrect responses-pointing to misperceptions.^[7]

Another study was conducted on primary school teachers' knowledge, attitude, and behavior towards children with attention deficit hyperactivity disorder on a sample of 120 catholic primary school teachers from 16 schools using structured knowledge questionnaire. The results revealed that the actual knowledge of teachers' was better than their apparent knowledge. A factor analysis on study attitude items reported that teachers' attitude towards attention deficit hyperactivity disorder can be grouped into 7 important clusters – lack of control, negative classroom effects, diagnostic legitimacy, perceived competence, influences to management, expectations and external control.^[8]

Primary school children spend a major part of their time in school. The childhood psychological problems will be elicited by the primary school children mostly in the class room. Disruptive behaviors in the classroom are a headache for the teachers as well the classmates because these in turn affect the equilibrium of the classes. When there are more disruptive behaviors in the classroom there is more loss of academic time and decreased academic performance. These behaviors are often irritating and disturbing which in turn can make the teacher to punish the student or she may tease the students due to ignorance. The improper management of these problems can disturb the class atmosphere as well as it may continue the

psychological problems in children in the future. So it is very important for the teachers to know about the childhood psychological problems so that they can identify these problems in the early stage. It is equally important to communicate the identified symptoms to the parents and take initiative to manage according to the severity. This will help the children to grow productively. Educational programs are found to be effective in improving the knowledge of the subjects of all ages including children, adolescents, adults and geriatric population.^[9-11]

MATERIALS AND METHODS

One group pretest posttest design was adopted for the study. Ethical approval was obtained from Father Muller Institutional Ethics Committee, Mangalore, India. The study was conducted in three primary schools of Mangalore, India. The permission to conduct study was obtained from each school authority. Convenient sampling technique was used to select 43 primary school teachers from three primary schools in Mangalore.

Primary school teachers between the age group of 21–55 years and who were able to read and write English were included for the study. The exclusion criteria were primary school teachers who had attended any educational programme on childhood psychological problems in last 6 months.

Knowledge questionnaire was administered to assess the knowledge of primary school teachers regarding selected childhood psychological problems. It included 40 multiple choice items in five domains *i.e.*, meaning, causes, symptom identification, and management of five selected childhood psychological problems: ADHD – 10 items, learning disorders – 7 items, conduct disorder – 10 items, phobia – 6 items, and anxiety disorder – 7 items. Each correct response

carried one score and the maximum score was 40.

The educational programme consisted of meaning, causes, signs and symptoms, identification of problems, management and role of teacher in the management of childhood psychological problems (ADHD, learning disorders, conduct disorder, phobia and anxiety disorder) with the help of the power point. The tool and educational programme were in English and were validated by experts from the field of psychiatry, psychiatric nursing, pediatrics, pediatric nursing and clinical psychology. Reliability of the tool was obtained by split half method and reliability coefficient was 0.93.

Informed written consent was obtained from the subjects. Baseline proforma and Knowledge Questionnaire on selected childhood psychological problems were administered to them. Followed by that, educational programme was given for 2 hours for teachers. The clarifications and discussions were kept at the end of programme. The educational programme was kept in three schools on three different days according to their convenience. After

7 days of programme, the posttest was conducted (Tables 1–3).

Statistical Analysis

As there were three dropouts in the group, the analysis of the data of 40 subjects was done finally. Data were analyzed using SPSS version 14. Data were described using mean and standard deviation. Paired “t” test was used to compare the pretest and posttest knowledge scores. Bivariate analysis was done using Chi-square and Fishers exact test. All statistical tests were two-tailed and significance level set at 0.05.

RESULTS

Table 2 shows that in the pretest 52.5% of the teachers in primary school had average knowledge, 45% had good knowledge and 2.5% had below average knowledge regarding childhood psychological problems and after the educational programme, 47.5% of them had excellent knowledge, 42.5% of them had good knowledge, 7.5% of them had average knowledge and 2.5% of them had below average knowledge regarding childhood psychological problems.

Table 1. Baseline Characteristics of Primary School Teachers. N=40.

Sl. no	Variables	Frequency	Percentage	Mean	Standard deviation	
1	Age in years					
	a. 21–30	13	32.5	37.95	11.49	
	b. 31–40	9	22.5			
	c. 41–50	9	22.5			
d. 50–55	9	22.5				
2	Gender					
	a. Male b. Female	– 40	– 100	–		
3	Educational qualification					
	a. DEd b. BEd	24 16	60 40	-		
4	Marital status					
	a. Married b. Unmarried c. Widow d. Separated	28 10 2 –	70 25 5 –	–		
	5	Number contact hours with students per week				
		a. 6–10 hours b. 11–15 hours	6 34	15 85	13.55	

					6.54
6	Teaching experience				
	a. <5 years	10	25	11.87	9.11
	b. 5-10 years	15	37.5		
c. >10 year	15	37.5			
7	Residential area				
	a. Urban	26	65	-	
b. Rural	14	35			
8	Presence of counselor in the school				
	a. Yes	-	-	-	
b. No	40	100			
9	Source of information (multiresponse item)				
	a. Television	21	52.5	-	
	b. Magazines	26	65		
	c. Workshops	17	42.5		
	d. Lectures	17	42.5		
e. Others	17	42.5			

Table 2. Distribution of Subjects According to Grading of Knowledge Score in the Pre- and Posttests. N=40.

Grading of knowledge scores	Range of scores	Pretest		Posttest	
		F	%	F	%
Excellent	33-40 (>80%)	-	-	19	47.5
Good	25-32 (61-80%)	18	45	17	42.5
Average	16-24 (40-60%)	21	52.5	3	7.5
Below average	<16 (<40%)	1	2.5	1	2.5

Maximum Score = 40.

Table 3. Comparison of Knowledge Pre and Posttest Scores. N=40.

Group	Mean knowledge score		Mean difference	t value	p value
	Pretest	Posttest			
Primary school teachers	24±4.89	31±5.32	7	8.090	<0.01*

Maximum Score=40, $t_{39} = 2.04$, ($p < 0.05$).

*Statistically Significant.

The calculated “t” value ($t=8.090$ $p < 0.01$) shows that there is a significant difference between pretest and postknowledge scores regarding childhood psychological problems (Table 3).

Significant difference was seen in the pretest and post test scores of knowledge in all the domains ($p < 0.01$ *)

Significant association was found between length of contact hours of the teachers with the students and pretest knowledge of the primary school teachers ($p=0.02$ *). There was no significant association of pretest knowledge and other baseline variables of primary school teachers.

DISCUSSION

The knowledge assessment of primary school teachers was done on five selected childhood psychological problems in four domains. There was significant gain in knowledge score in all the areas (ADHD, learning disorders, conduct disorder, phobia, and anxiety disorder) and there was highly significant gain in mean score after the Educational Programme [the posttest mean (31 ± 5.32) is greater than that of pretest mean (24 ± 4.89)].

The findings of the present study was congruent with the findings of the pre experimental study conducted in selected schools in Delhi on a sample of 35 primary school teachers to evaluate the effect of educational module on knowledge of primary school teachers in context to early

symptoms of childhood psychiatric disorders. In this study the mean age of the subjects was 36.37 years and the mean years of experience was 11.43 years. Majority (97%) of the subjects were females. Most of the subjects were married (85%) and more than half (57%) of the subjects had the educational qualification of graduation or post-graduation with B.Ed. Two-thirds of the subjects (68%) were teaching in primary classes, while another 2/3rd (63%) had read articles on childhood psychological problems from newspapers^[9]

The pre experimental study conducted in Sultanate of Oman to evaluate the effectiveness of a teaching programme on ergonomics for computer use among the staff of Majan College showed congruent findings. There was a significant difference in the pre-test and the post-test means. The pretest mean was 9.36 with an SD of 3.91 and the posttest mean was 15.9 with an SD of 3.09. Paired “t” test showed that there was a significant difference in the pre- and posttest scores ($t_{29} = 11.466$) at 5% level of significance. Therefore, the planned teaching programme was found to be an effective in increasing the knowledge of the staff.^[10]

The findings of the present study was also congruent with the results of a quantitative study conducted in Africa where the majority of the primary school teachers showed a lack of knowledge about the causes of attention deficit hyperactivity disorder. A clear lack of knowledge about the epidemiology of disorder was also evident in the substantial percentage of respondents (31.2%).

The possible reasons for the similarities in results for both the studies conducted in developing countries may be the gap between theory and practical experience

given for the teachers during the educational training of the teachers.

Results from another study conducted in Canada in the year 1994, showed inconsistent results with the present study. The study evaluated Canadian and U.S. teachers’ knowledge on ADHD and found that the teachers performed well on knowledge-based questions regarding etiology and educational implications.^[12] Possible reasons for the findings could be the effectiveness of the curriculum of teachers’ education in the training period of the primary school teachers.

There was a significant association found between length of contact hours of the teachers with the students and pretest knowledge of the primary school teachers in the present study. The significant association between length of contact hours and knowledge of the teachers reveals that the teachers who are more concerned about the children spends more hours in class room interacting with children. They observe many problems among children and they try to get information about those problems from social media and resource persons and thereby they increase their knowledge as well as try their best to help children.

Similar findings were obtained in a study conducted in Cape Metropole. The overall knowledge of attention deficit hyperactivity disorder had no association with the age of the teachers as well as to the years of general experience they have.^[7]

Inconsistent findings were noted in a study conducted in United States. There were significant correlations between years of experience and answers to items.^[12,13] The possible reasons for the dissimilarity in the results may be due to some of the barriers to effective instruction, including lack of

time to administer specialized interventions, lack of training, large class size, and severity of students' problems.

CONCLUSION

The research study concluded that the educational programme was effective in improving the level of knowledge of primary school teachers regarding selected childhood psychological problems. Hence such programmes should be employed in rural and urban schools to develop awareness among teachers regarding psychological problems of children.

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