



RESEARCH ARTICLE

EFFECTIVENESS OF SEMINAR FOR SCHOOL TEACHERS ON MANAGEMENT OF ATTENTION DEFICIT CHILDREN AT SELECTED SCHOOLS IN MORENA, MADHYA PRADESH, INDIA

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ABSTRACT

Background: In India, twenty one community based studies conducted over a period from 1964 to 2000 identified 0.48% to 29.40% of children who had mental illness. Prevalence rate of ADHD children in India is 12.82% reported by ICMR (1988-1991), 4.67% reported by AIIMS Delhi (1980-82). At least 3% of school age children suffer serious attention deficit problems.

Objectives: To assess the learning needs of teachers about management of attention deficit in terms of need assessment opinionnaire; to assess the knowledge of school teachers about management of attention deficit in children as measured by a structured knowledge questionnaire; to evaluate the effectiveness of seminar on management of attention deficit children in terms of gain in knowledge score and to find out association between pretest & posttest knowledge score of school teachers about management of attention deficit with their selected demographic variables

Methods and Materials: An evaluatory research approach with one group pretest posttest design was employed among 30 primary school teachers selected by purposive sampling technique and by administrating Need assessment opinionnaire. Data was collected by administrating a structured knowledge questionnaire before and after seminar.

Results: Result of this study showed that mean post test knowledge score i.e. 17.40 than mean pretest knowledge score i.e. 11.07 of primay school teachers. The difference in knowledge score was statistically significant at 0.05 level (t test = 7.3). Association between knowledge score and demographic variables found non significant in both pretest and posttest.

Conclusion: It was concluded that seminar was effective in terms of gain in knowledge.

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INTRODUCTION

Attention deficit hyperactivity disorder (ADHD) is one of the most common neurodevelopmental disorders (NDDs) in childhood. It is estimated to afflict 3–5% of children worldwide, with a section of those affected continuing to have symptoms in adulthood (American Psychiatric Association, 2013). It is characterized by inattention, increased distractibility with difficulty sustaining attention, poor impulse control and decreased self-inhibitory capacity, motor over activity and motor restlessness. Population surveys suggest that ADHD occurs around the world in about 5% of children and it is carried to about 2.5% of adults. These reported rates vary depending upon the nature of the population sampled and the method of ascertainment (Kliegman *et al.*, 2007). General Prevalence of ADHD in Children and Adolescents in the United States is 8.8% (1 in 11) in age group 4-17 years

(National Survey of Children's Health (NSCH) 2003 to 2011). The worldwide-pooled prevalence of ADHD for persons age 18 and under was 5.29%, based on a review of 102 studies comprising 171,756 subjects from all world regions (The worldwide prevalence of ADHD: a systematic review and metaregression analysis, 2007). Global ADHD prevalence for males aged 5-19 is 2.2% and for females 0.7%, based on a review of 44 studies covering 21 world regions (Epidemiological modelling of attention-deficit, 2010). The prevalence of this disorder varies from 1% to 20% depending on the diagnostic criteria, the population of children studied and the source of information. Around 60% of ADHD children will carry some of their behavior in adulthood (Bhatia *et al.*, 1999). A comprehensive meta-analysis of 86 studies in children and adolescents revealed that the incidence of ADHD ranges from 5.9-7.1% (Willcutt, 2012). Many studies across the globe have reported the prevalence of ADHD in 5% to 10% of school aged children. Most of them are western studies and there is a little information about the same from India. In order to manage ADHD children, collaborative effect of health professionals, teachers and parents required. this literature

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motivated the investigator conducted present study on primary school teachers' in management of attention deficit to equip them with knowledge in dealing with attention deficit.

Objectives

- To assess the learning needs of teachers about management of attention deficit
- To assess the knowledge of school teachers about management of attention deficit in children
- To evaluate the effectiveness of seminar on management of attention deficit children
- To find out association between pre-test & post-test knowledge score of school teachers about management of attention deficit with their selected demographic variables

Hypotheses: hypotheses will be tested at 0.05 level of significance

H₁: The mean post test knowledge score of the school teachers regarding management of attention deficit in children will be significantly higher than their mean pre test knowledge score.

H₂: There will be significant association between knowledge of school teachers' on management of attention deficit and their selected demographic variables.

MATERIALS AND METHODS

A quantitative evaluative research approach with one group pre-test post-test research design was used for the study. The sample consisted of 30 primary school teachers selected by purposive sampling technique and by administrating Need assessment opinionnaire. Informed consent was obtained prior to data collection process. Data was collected by administrating a structured knowledge questionnaire prepared by the investigator before and after seminar. Pre-test conducted on Day-1 and seminar on management of attention deficit was taken on same day for 2½ hours and post-test was taken on Day 8. Seminar had 2 sessions i.e. orientation phase including meaning, causes and sign & symptoms and management phase including assessment, diagnosis, classroom intervention and teachers' role. Data was analysed using descriptive and inferential statistics.

RESULTS

Part I : Need assessment opinionnaire

Table 1. Mean & mean percentage of teachers facing problem of attention deficit in school children

N=30			
Area	Items	Mean	Mean percentage
Speech and articulation	7	4.60	65.72
Psychomotor area	8	4.50	56.25
Scholastic performance	14	7.70	55.00
Group activity	2	1.13	56.50
Total	31	17.90	60.00

Data in table 1 shows that 60% of primary school teachers are facing the problem of attention deficit in their school children. Out of them majority of teachers (65.7%) were facing the

problem in speech and articulation. Least percentage (55%) was in the area of scholastic performance.

Table 2. Frequency & percentage distribution of most common behaviours faced by teachers

N=30		
Most common behaviours	Frequency	Percentage
Inference in others students' activities	23	76.7
Often makes spelling mistakes	22	73.3
Blurts out answers before questions have been completed	22	73.3
Speech sounds are omitted while reading	21	70.0
Talks excessively	21	70.0
Failure to respond to simple instructions	20	66.7
Difficulty in sitting still at one place	20	66.7
Shifts from one complete activity to another	20	66.7
Absence of social smile	20	66.7
Fails to finish the things started (i.e. homework, classroom exercise)	20	66.7

Most common symptoms of attention deficit which are faced by primary school teachers are shown in table 2.

Part II: Frequency & percentage distribution of sample characteristics

Table 3. Frequency and percentage distribution of sample characteristics

Demographic variable	frequency	%
Age in years:		
• 21-30	12	40%
• 31-40	10	33.33%
• 40-50	6	20%
• 51-60	2	6.67%
Sex:		
• Male	4	13.33%
• Female	26	86.67%
Teaching Experience (in years):		
• ≤ 5	15	50%
• 6-10	41	3.33%
• 11-15	8	26.67%
• > 15	3	10%
Educational qualification:		
• D.Ed/ TCH	11	36.67%
• B.Sc./ B.Com /B.A/B.Ed.	14	46.67%
• M.Sc./ M.Com/M.A/M.Ed.	51	6.66%
Residential area:		
• Urban	20	66.67%
• Semi-urban	4	13.33%
• Rural	6	20%
No. of hours in contact with children per week:		
• ≤ 5	1	3.33%
• 6-10	3	10%
• 11-15	1	3.33%
• > 15	25	83.34%

Data presented in table 3 represent that 40% of school teachers are below 30 years and 60% above 30 years, maximum (86.67%) were female, half of teachers were having less and equal than 5 years of experience, nearly half (46.67%) were undergraduate, nearly two third (66.7%) were residing in urban area and maximum (83.34%) teachers were in contact with children for more than 15 years hours per week.

Part III: Knowledge assessment of primary school teachers' on management of attention deficit in school children

Table 4. Range, mean, median and standard deviation of pre-test & post-test knowledge scores of teachers

N=30				
Area	Range	Mean	Median	SD
Pre-test	6-17	11.07	11	2.85
Post-test	9-25	17.40	18	4.32

Maximum score = 26

Data in table 4 shows that mean post test knowledge score is apparently higher than the mean pretest score. Pretest score range from 6-17 and post test score range from 9-25 shows that post test score is higher than pretest score.

Part IV: Effectiveness of seminar in terms of gain in knowledge score

Table 5. Mean, standard deviation and standard error difference and t value on pre and post test knowledge score

Group	Mean knowledge score		SD of difference	Standard error	t value
	Pretest	posttest			
Primary school teachers	11	17.4	4.73	0.86	7.3* Significant (P < 0.05)

Table 6. Area wise mean, mean difference, standard deviation of difference, standard error and t value on pre test and post test knowledge score

Area	Mean knowledge score		Mean difference	SD of difference	Standard error	t value
	Pretest	posttest				
Meaning	2.66	3.87	1.21	1.67	0.30	4.10*
Causes	0.53	0.93	0.40	0.497	0.09	5.10*
Sign & symptoms	3.33	4.47	1.14	2.30	0.42	2.69*
Management	4.5	8.13	3.63	2.64	0.48	7.50*

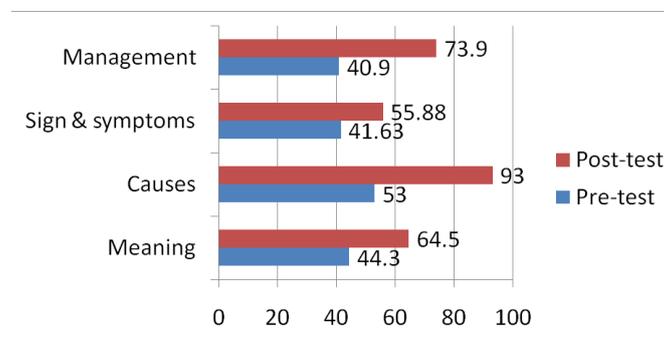


Figure 1. Bar diagram showing area wise distribution of pre-test and post-test mean percentage score of knowledge of primary school teachers

Table 7. Chi square value between level of pre-test knowledge and demographic variables

S.No.	Sample characteristics	df	Knowledge	
			χ^2	Inference
1	Age	3	0.455	Non significant
2	Sex	1	0.012	Non significant
3	Teaching experience	3	0.556	Non significant
4	Qualification	2	0.215	Non significant
5	Residential area	2	0.625	Non significant
6	No. of hours in contact with children/ week	3	0.000	Non significant

Table 8. Chi square value between level of post test knowledge and demographic variables

S.No.	Sample characteristics	df	Knowledge	
			χ^2	Inference
1	Age	3	0.17	Non significant
2	Sex	1	0.16	Non significant
3	Teaching experience	3	0.54	Non significant
4	Qualification	2	1.08	Non significant
5	Residential area	2	0.02	Non significant
6	No. of hours in contact with children/ week	3	0.13	Non significant

Data in table 5 shows that t value ($t_{29} = 7.3$, $p < 0.05$) showed that there was significant difference between pretest and post test knowledge scores. Findings suggest that seminar was effective in gain in knowledge. Hence Hypothesis H_1 is accepted.

Data in table 6 shows that the mean pretest score of pretest was highest in area of causes (53%) and least (40.9%) in area of management whereas mean percentage score of post test was highest in area of causes (93%) and in management (73.9%) and least in area of sign & symptoms (55.8%). Mean gain shows that post test knowledge score in all areas. Findings suggest that seminar was effective.

Bar diagram in figure 1 reveals pretest and post knowledge score in all areas of seminar.

Part V: Association between the knowledge score and demographic variables

Data in table 7 & 8 shows that pretest & posttest knowledge score of school teachers' on management of attention deficit with their demographic variables was found non significant at 0.05 level of significance. Hence hypothesis H₂ is rejected.

Part VI: Evaluation performance for teachers on the seminar

Evaluation performance was analysed after conduction of seminar and found that all teachers (100%) found seminar useful. Maximum (93.33%) of teachers had opinion about content of seminar was relevant for practice. All teachers (100%) had positive opinion (66.67% very good opinion & 33.33% good opinion) about seminar & found it interesting (majority 73.33% on management part).

DISCUSSION

In the present study overall 60 % of teachers are facing problems of ADHD, in the majority (65.72%) are facing problems in speech and articulation area. Most common symptom of ADHD is interference in other students' activities (76.7%). There was significant gain in knowledge in school teachers after attending seminar than before and there was no association found between pre-test & post-test knowledge score of school teachers about management of attention deficit in children with their selected demographic variables. In the previous studies (Rodrigo *et al.*, 2011; Anil Shetty and Sanjeev Rai 2014; Prashant B Patil, 2013) same results were found.

Limitation of the study

- Sample confined to only primary school teachers
- A structured knowledge questionnaire was used for data collection
- Study did not have a control group
- No attempt was made to measure the retention of knowledge after the post-test
- Duration of seminar was limited to 2½ hour
- Study was confined to only co-education school teachers

Recommendation

The present study recommended that Study can be replicated on a large sample. A similar study can be conducted among parents of primary school children. A time series design could be undertaken for the present study. An exploratory study may be conducted to assess problems faced by ADHD children. A series of seminar can be conducted to school teachers on the same topic.

Conclusion

Present study concluded that majority of teachers were facing problem of attention deficit in their school children assessed by need assessment opinionnaire. Seminar was found effective in improving the knowledge of teachers about management of attention deficit children and there was no significant relationship found between all demographic variables used in the study in both pre test and post test.

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Ethical clearance

The Present study was approved by research committee and all administrative permission from institutions were taken. Verbal permission was taken from participants before data collection and confidentiality was maintained.

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