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Assessment Of Knowledge Regarding Attention Deficit Hyperactivity Disorder Among Primary School Teachers: A Pre-Experimental Study

A study to assess effectiveness of planned teaching program on knowledge regarding attention deficit hyperactivity disorder among primary school teachers in selected schools of Kudal.

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Abstract: Teachers play a vital role in a child's education. Teacher's knowledge of Attention deficit hyperactivity disorder is important because they are often the first to notice attention deficit hyperactivity disorder symptoms in children & can provide information valuable for diagnosis and helps to influence student school performance and general learning ability. However, many misconceptions about Attention deficit hyperactivity disorder persist among teachers. Children with attention deficit hyperactivity disorder have academic difficulties, but they can be supported by a teacher who understand their unique needs and develop learning programs that are best for them. In India the prevalence of attention deficit hyperactivity disorder among children was found to be 11.32%. Hence the focus of this study was to assess the knowledge regarding attention deficit hyperactivity disorder among primary school teachers working at primary schools of Kudal, Sindhudurg in the year 2024. A pre experimental research approach was used in this study. The data was collected personally by the researcher through direct observation and structured knowledge questionnaire with 30 multiple choice items. The sample was primary school teachers selected through probability simple random sampling technique. In the present study after analysis and interpretation of data with regard to knowledge score regarding attention deficit hyperactivity disorders it was found that the mean post-test knowledge score is higher than pre-test and this shows that the planned teaching program is highly significant in increasing knowledge of attention deficit hyperactivity disorder among primary school teachers in selected schools of Kudal, Sindhudurg.

Keywords **- Attention deficit hyperactivity disorder, knowledge, primary school teachers, planned teaching program.**

INTRODUCTION

Childhood is a period of growth and development. It has been seen that the developing years are critical as these years lay the foundation for development into a well-adjusted adult. As the child grows up, he/she needs an environment which can be explored to enable the development of self-reliance and doing things on his/her own. All this is possible in an environment when the child has caring caregivers who give quality time to the child, a home where the child feels secure, has a regular attendance in school and has playmates in the neighborhood to interact with.

Mental health is a critical component of children learning and general health. Childhood mental health impact of problems are associated with significant adverse health and psychosocial outcomes in adulthood like antisocial behavior, depression & suicide etc. and impose a substantial burden on the community.

Attention deficit hyperactivity disorder is one of the most common disorders of childhood. In India the prevalence of Attention deficit hyperactivity disorder among elementary children has found to be 11.32%. The prevalence is highest within age bracket of 9 and 10 years. More than two-thirds of all children with

attention deficit hyperactivity disorder have additional conditions including insomnia, mood, anxiety disorders, learning disorders or substance use disorders.

Children spend the greatest amount of their time in classrooms, they are likely to follow guidelines, behave in socially proper ways, participate in educational activities and withdraw from disturbing the learning development or activities of others. Teachers do not only teach the learners skill abilities and knowledge that form part of curriculum but also they must teach them to act in manner that meets organizational, social and cultural expectations.

NEED FOR STUDY

Teacher's knowledge of attention deficit hyperactivity disorder is important because they are often the first to notice it's symptoms in children & can provide information valuable for diagnosis and helps to influence student school performance and general learning ability. Unfortunately current evidences suggest that teachers may be inadequately prepared to support children with attention deficit hyperactivity disorder effectively due to limited training and knowledge about the disorder.

A descriptive study was carried out on primary school teachers in Mumbai in the year 2022. The objective of the study was to assess the level of knowledge and perceptions about ADHD among primary school teachers in Mumbai. A total of 106 teachers from 12 English-medium school teachers were used as sample for this study. The complete knowledge questionnaire of attention deficit disorders is used as a data collection method. The study concludes that overall, the teachers lacked adequate knowledge of ADHD with only 49% of the responses were correct.

A cross-sectional study was conducted to assess the level of knowledge about ADHD among primary school teachers in Sharjah UAE in the year 2022. A convenient sampling method was used to collect data from 239 teachers working at the public schools in Sharjah. A self-administered questionnaire was used to measure the socio-demographic characteristic and the knowledge of attention- deficit disorders scale was used to measure the knowledge about ADHD. Data were analyzed using both descriptive and inferential methods. The study concludes that the teacher's level of knowledge about ADHD –associated features and treatment was inadequate in Sharjah Hence, enhancing knowledge about ADHD by proving various training workshops and conducting social events and campaigns are warranted to enhance their knowledge on ADHD.

STATEMENT OF THE PROBLEM

"A study to assess the effectiveness of planned teaching program on knowledge regarding attention deficit hyperactivity disorder among primary school teachers in selected schools of Kudal."

OBJECTIVES

The objectives of the study were.

1) To assess the level of knowledge regarding attention deficit hyperactivity disorder among primary school teachers in selected schools of Kudal.

2) To assess the effectiveness of planned teaching program on knowledge regarding attention deficit hyperactivity disorder among primary school teachers in selected schools of Kudal.

3) To find out the association between pre-test knowledge score with their selected socio- demographic variables.

Hypothesis

H0: There will be no significant difference between pre-test knowledge score and post- test knowledge score.

H1: There will be significant difference between pre-test knowledge score and post- test knowledge score.

H2: There will be significant association between the pre-test knowledge score of primary school teachers with their selected socio- demographic variables.

Assumptions

•The study assumed that Primary school teachers have some knowledge regarding attention deficit hyperactivity disorder.

•The study assumed that there will be significant difference between the pretest knowledge score and posttest knowledge score.

METHODOLOGY

Research Approach

Research approach indicates the procedure for conducting the study. It helps the researcher to know what data to be collected and how to analyze it. Focusing on the nature of research problem for the study and the objectives, an evaluative research approach was considered to carry out the study.

Research Design

It is the complete plan for having answer to the research questions and for managing few obstacles during the research process. Pre-experimental one group pre-test post-test design is used for the study.

Variables of the Study

Variable is the content that has measurable changing attributes. Variables are qualities, properties or characteristics of persons, things or situation that change or vary.

a) Independent variable-

In the present study independent variable refers to the planned teaching program which is intended to improve the knowledge of primary school teachers about attention deficit hyperactivity disorder.

b) Dependent variable –

In the present study dependent variable refers to the knowledge regarding attention deficit hyperactivity disorder among the primary school teachers in selected schools of Kudal.

c) Socio- demographic variables-

Personal characteristics which includes age, gender, educational qualification, years of experience, source of information and area of residence.

Research Setting

Setting is the physical location and condition in which data collection takes place.

The study was conducted in selected primary schools of Kudal.

Population

Population is the aggregation of all the units in which researcher is interested. In other words, it is a set of people or entire to which the result of a research is to be generalized. In the present study the target population was teachers.

Sample and sample size

Sample may be defined as representative unit of a target population which is to be worked upon by researchers during study. In this research study, Sample is the primary school teachers and sample size is 40.

Sampling Technique

Sampling technique is the process of studying the population by gathering information and analyzing that data. In this research study the required number of subjects were selected by using probability sampling technique in that simple random sampling technique is used to select the primary schools at Kudal and also to select the sample that was primary school teachers.

Description of the Tool

The tool was designed to collect information on knowledge regarding attention deficit hyperactivity disorder among primary school teachers in selected schools of Kudal. The final tool consists of two parts namely Part -A and Part-B.

Part A- Demographic variables including age, gender, education, years of experience, source of information and area of residence of the primary school teachers in selected primary schools of Kudal.

Part B- Structured knowledge questionnaire was used to assess knowledge regarding attention deficit hyperactivity disorder among primary school teachers. It consists of 30 multiple choice questions. Each question having four responses.

A score of ‘1’ was awarded to each correct answer in the questionnaire and ‘0’ for incorrect answer. Total score for the questionnaire was 30.

Reliability

Reliability of the tool is defined as the degree to which the tool produces the same result in recurrent measures. The tool was tested for its reliability by doing pilot study on 04 primary school teachers teaching in Z.P primary school, Sarafdarwadi, Pinguli and the reliability was calculated by using Karl Pearson’s coefficient of correlation formula and the ‘r' value obtained was 0.78. Hence the tool was reliable.

Description of Planned Teaching Program

The planned teaching program developed for the study was based on the knowledge regarding attention deficit hyperactivity disorder. This teaching program will help primary school teachers to improve their knowledge and understand the importance of applying knowledge in their daily teaching activities of children with attention deficit hyperactivity disorder. Planned teaching program for the present study consists of teaching regarding-

1. Introduction of attention deficit hyperactivity disorder.
2. Definition of attention deficit hyperactivity disorder.
3. Etiology of attention deficit hyperactivity disorder.
4. Clinical features of attention deficit hyperactivity disorder.
5. Sign and symptoms of attention deficit hyperactivity disorder.
6. Management of attention deficit hyperactivity disorder.

Data collection procedure

The research investigator obtained ethical clearance and formal permission from the Principals of primary schools to collect data for the main study. The main study was conducted at Z. P. Primary School Pinguli No.1, Z. P. Primary School Pinguli Aasanachepani, Primary School Wadiwarawade, Z. P. Primary School Tulsuli No.1, Z. P. Primary School Tulsuli No.2 & Z. P. Primary School Bibavane, Kudal.

Steps used for data collection:

1. Written permissions were obtained from the Principals of selected primary schools.
2. Informed written consent of all 40 study subjects were taken to confirm their willingness to participate in the study.
3. The data was conducted from 15/09/2023 to 21/09/2023. The exact time and date was planned with primary school authority and was communicated to the respondents. The investigators approached teachers according to the timing given.
4. Prior to the data collection the investigator gave self-introduction and explained the purpose of the study to them. Researcher requested consent and full cooperation from participants and assured them of confidentiality of the responses.
5. Pre-test knowledge questionnaire was administered on 15/09/2023. The average time taken for pre-test was 30 min. Then planned teaching program was administered on the same day after one hour of pre-test which takes about 40 minutes. On the 7th day after the administration of planned teaching program on dated 21/09/2023 the post test was conducted by investigator using the same questionnaire at the same place. The average time taken for post-test was 30 min.
6. All teachers have cooperated well with the investigator during the data collection period. The data collection process was terminated after thanking the respondents for their co-operation and patience. The data collection was then compiled for the data analysis.

Plan of data analysis

The data obtained was analysed in term of achieving the objectives of the study using descriptive and inferential statistics.

1. Application of paired ’t’ test to ascertain whether there is significant difference in the mean knowledge score of pre- test and post-test value.
2. Application of chi- square test to find out the significant association between the knowledge scores with selected demographic variable.

RESULTS AND DISCUSSION

Section I: Findings related to socio- demographic variables of primary school teachers in selected schools of Kudal.

Table 1: Frequency and percentage distribution of primary school teachers working in selected schools at Kudal.

N=40

SR. NO	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1	**Age in years**		
	30 - 40 years	17	42.50%
	40 - 50 years	18	45%
	50-60 years	5	12.50%
	More than 60 years	0	0%
2	**Gender**		
	Male	17	
	female	23	57.50%
3	**Education**		
	B.Ed.	15	37.50%
	D.Ed.	13	32.50%
	M.Ed.	7	17.50%
	Other	5	12.50%
4	**Total years of experience**		
	1-3 years	10	25%
	4-6 years	6	15%
	7-9 years	3	7.50%
	More than 10 years	21	52.50%
5	**Source of Information**		
	Newspaper	12	30%
	Health magazine	13	32.50%
	Television	4	10%
	Friend and Family	11	27.50%
6	**Area of Residence**		
	Urban	14	35%
	Rural	26	65%

Table 1: describes the demographic data of the primary school teachers. The majority of the primary school teachers (17) 42.50% belong to the age group of 30 – 40 years. Majority subjects (23) 57.50% are female participated in the study. Maximum subjects (15) 37.50% have B.Ed. education. Maximum (21) 52.50% of samples had more than 10 years of experience, majority 13 (32.50%) of primary school teachers got information from health magazine and 26 (65%) of primary school teachers were from rural area.

Section II: Findings related to knowledge of primary school teachers regarding attention deficit hyperactivity disorder.

Table 2: Frequency and Percentage distribution of knowledge score of primary school teachers on attention deficit hyperactivity disorder. N= 40

Knowledge score	Pre-test scores		Post-test scores	
	Freq.	%	Freq.	%
Good (21-30) Above (Mean+ SD)	5	12.50%	39	97.50%
Average (14-20) between (Mean+SD) AND (Mean- SD)	28	70%	1	2.50%
Poor (0-13) (Mean-SD)	7	17.50%	_	_

Table 2: reveals that in pre-test 5 (12.50%) of primary school teachers had good knowledge score. 28 (70%) of primary school teachers had an average level of knowledge and 7 (17.50%) had poor knowledge whereas in post-test 39 (97.50%) had good level of knowledge score,1 (2.50%) had average level of knowledge score.

Findings related to association between pre-test knowledge scores of primary school teachers and selected socio- demographic variables.

Table 3:Association between pre-test knowledge scores of primary school teachers and selected socio-demographic variables. N=40

Sr.no	Demographic Variables	Good	Average	Poor	Chi-square value		df	Inference
					Calculated	Tabulated		
1	**Age**							
	a. 30-40 years	4	12	1	18.208	12.59	6	S
	b. 40-50 years	1	15	2				
	c. 50-60 years	0	1	4				
	d. More than 60 years	0	0	0				
2	**Gender**							
	a. Male	2	10	5	2.937	5.99	2	NS
	b. Female	3	18	2				
3	**Education**							
	a) B.Ed.	4	11	0	23.667	12.59	6	S
	b) D.Ed.	1	12	0				
	c) M.Ed.	0	3	4				
	d) Other	0	2	3				
4	**Total years of experience**							
	a. 1-3 years	5	5	0	22.873	12.59	6	S
	b. 4-6 years	0	5	1				
	c. 7-9 years	0	3	0				
	d. More than 10 years	0	15	6				
5	**Source of information**							
	a.Newspaper	5	6	1	14.46	12.59	**6**	**S**

	b.Health magzine	0	10	3				
	c.Television	0	4	0				
	d.Friends and Family	0	8	3				
6	**Area of Residence**							
	a. Urban	5	9	0	13.154	5.99	2	S
	b. Rural	0	19	7				

Table 3: reveals the association between knowledge score of primary school teachers on knowledge regarding attention deficit hyperactivity disorder with selected socio- demographic variables was computed by using Chi-square (X^2) test.

- There was a significant association between age of primary school teachers and pre-test knowledge score. The calculated X^2 value (18.208) at df (6) and tabulated X^2 value (12.59) at 0.05 level of significance. Hence, $H_{2.1}$ is accepted.
- There was no significant association between the gender of primary school teachers and pre-test knowledge score. The calculated X^2 value (2.937) at df (2) and tabulated X^2 value (5.99) at 0.05 level of significance. Hence, $H_{2.2}$ is rejected.
- There was a significant association between the education of primary school teachers and pre-test knowledge score. The calculated X^2 value (23.667) at df (6) and tabulated X^2 value (12.59) at 0.05 level of significance. Hence, $H_{2.3}$ is accepted.
- There was a significant association between Years of experience of primary school teachers and pre-test knowledge score. The calculated X^2 value (22.873) at df (6) and tabulated X^2 value (12.59) at 0.05 level of significance. Hence, $H_{2.4}$ is accepted.

There was significant association between Source of information of primary school teachers and pre-test knowledge score. The calculated X^2 value (14.46) at df (6) and tabulated X^2 value (12.59) at 0.05 level of significance. Hence, $H_{2.5}$ is accepted.

The result of the study was-

1) 28 (70%) of primary school teachers had average knowledge, 5 (12.50%) of primary school teachers were having good knowledge and 7 (17.50%) had poor knowledge in pretest. Whereas, in post-test 39 (97.50%) had good knowledge score and 1 (2.50%) of the primary school teachers had average knowledge score. Hence H_0 is rejected and H_1 is accepted.
2) There is a significant association between pre-test knowledge score of primary school teachers with their selected socio- demographic variables such as age, educational qualification,years of experience, source of information and area of residence except gender. Hence research hypothesis H_2 is accepted.

CONCLUSION

1) Knowledge of the primary school teachers in selected schools of Kudal found to be average knowledge score in pretest. While in the post-test primary school teachers has gained good knowledge score.
2) There was remarkable improvement in the knowledge score after administration of the planned teaching program on the knowledge regarding attention deficit hyperactivity disorder. The post-test knowledge score was significantly higher than pre-test knowledge score.

The socio- demographic variables of the primary school teachers such as age, education, years of experience, source of information and area of residence were found to be have significant association with the pre-test knowledge score except gender of primary school teachers.

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