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A Descriptive Study to Assess the Level of Knowledge Regarding Attention Deficit Hyperactive Disorders in Children among Primary School Teachers in Selected Schools at Maharashtra

Rani P. Mani[1], Shivaprasad Halemani[2]

[1]MSc. Nursing, Psychiatry Department, MES College Nursing

[2]Associate Professor, MSc. Nursing, Head of Psychiatric Nursing, Department and Research Coordinator, MES College of Nursing, Ghanekhunt Lote

Abstract: ***Background of the study: Attention deficit hyperactivity disorder is a disorder of childhood and adolescence and it is one of the most common psychiatric disorders that cause distress in the lives of both children and adult. If Attention deficit hyperactivity disorder remains undetected the child may experience academic failure, rejection by peers, and develop low-self-esteem. Teachers are seen as one of the most important sources of information with regard to referral and diagnosis of ADHD. They also have the accountability for creating an environment conductive to academic, social and emotional success for children with ADHD. Therefore a study was undertaken to assess the knowledge regarding attention deficit hyperactivity disorder in children among primary school teachers in selected primary schools at Maharashtra. Objectives: To assess the level of knowledge regarding attention deficit hyperactive disorder in children among primary school teachers in selected schools at Maharashtra and to find out the association between level of knowledge regarding attention deficit hyperactive disorder in children among primary school teacher with selected socio demographic variables. Methodology: Quantitative research approach with descriptive research design was used for this study. The total 100 samples were selected by Convenient sampling technique. The self-administered structured questionnaires were used to assess the knowledge. The data was analyzed by descriptive and inferential statistics. Result: Based on the findings, the result of the study shows that majority of primary school teachers (91%) had average level of knowledge about attention deficit hyperactive disorder, whereas only (9%) had good knowledge regarding attention deficit hyperactive disorder. The analysis revealed that there is association between the levels of knowledge of primary school teachers regarding attention deficit hyperactive disorder with teaching experience (i.e. P=0.0358). Conclusion: The study concludes that the majority of samples have only average knowledge about ADHD. Result from this study brings light to the fact that teachers need to be educated and supported to further their professional development regarding ADHD. Teachers who are knowledgeable about ADHD are better prepared to be in a position to provide adequate teaching, assistance and support for children with ADHD.***

Keywords: knowledge, ADHD, Primary school teachers

1. Introduction

Attention deficit hyperactivity disorder is one of the most common neurobehavioral disorders of childhood. It largely affects the academic achievement, well-being and social interactions of children.[1]

The worldwide prevalence in children ≤18 years has been estimated at 5.3% in an exceedingly systematic review of 102 studies from all continents, with a majority cases of ADHD from North America and Europe.[2]

In India the prevalence of attention deficit hyper active disorder among elementary children was found to be 11.32%. Prevalence was found to be higher among the males (66.7%) than that of females (33.3%). The prevalence among lower socio-economic group was found to be 16.33% which among middle socio-economic group was 6.84%. The prevalence was highest within the age bracket of 9 and 10 years.[3]

In Mumbai, Maharashtra the prevalence of attention deficit hyperactivity disorder was 12.3 % with the ratio of 3:2 within boys and girls respectively. It had been more prevalent in nuclear type of family and in families where one parent was working especially where the pater was the only breadwinner and doing semi-skilled or unskilled kind of work. No significant relation was found between the numbers of work-related hours when parents were away from children and attention deficit hyperactivity disorder.[4]

Attention deficit hyperactive disorder is not the result of poor parenting. ADHD is not laziness, wilful misbehaviour, or a character flaw. The challenging behaviors that children with attention deficit hyperactive disorder exhibit stem from neurobiological differences. Their behaviors are not deliberate. Children with attention deficit hyperactive disorder are often not even aware of their behaviors and their impact on others. Although attention deficit hyperactive disorder is most commonly diagnosed in school-age children, it can be and is diagnosed reliably in younger children and adults.[5]

Identifying and treating them would reduce the burden of this disorder and may help in better management of the co-morbid conditions in these children. Since the classroom is an important context for these students, effective intervention in the classroom setting is essential for the academic progress and emotional wellbeing of children diagnosed with ADHD. The success of children with ADHD

in the classroom largely resides in the hands of their teachers. Insufficient knowledge and negative attitude towards ADHD and its treatment among teachers result in lack or improper implementation of management recommendations leading to treatment failure.

Their knowledge is of direct benefit to students with ADHD and their families. For this reason, in order to find out exactly what level of knowledge teachers have about this problem is crucial.

1.1 Objectives of the study

1) To assess the level of knowledge regarding attention deficit hyperactive disorder in children among primary school teachers in selected schools at Maharashtra.
2) To find out the association between level of knowledge regarding attention deficit hyperactive disorder in children among primary school teacher with selected socio demographic variables such as Age, Gender, educational qualification, experience in teaching, source of information.

1.2 Assumptions

1) Primary school teachers may have adequate knowledge regarding attention deficit hyperactive disorder in children of selected schools at Maharashtra
2) There may be significant association between the mean score of level of knowledge regarding attention deficit hyperactive disorder in children among primary school teachers and selected demographic variables.

2. Review of Literature

1) A descriptive study was carried out to assess the prevalence of ADHD among children in primary schools in Assam, India. 300 children aged between six and 11 years were selected from two schools in Cachar district, Assam, India. The presence of ADHD was assessed by using the Conner's Abbreviated Rating Scale given to parents and teachers. The prevalence of ADHD among primary school children was found to be 12.66%. Prevalence was found to be higher among the boys, those belonging to lower middle socioeconomic class, and in the age groups of seven and eight years. The prevalence of ADHD is high among primary school children.[6]
2) An observational cross-sectional study was conducted to determine the prevalence of Attention Deficit Hyperactivity Disorder among both governmental and private primary Saudi school children. Simple Random technique used for sample selection. Sample size was 1000 primary school children belonging to 1st, 2nd and 3rd grade. The selected students were screened by the ADHD rating scale using multistage sampling technique. The ADHD rating scale was filled by both parents and teachers along with a socio-demographic questionnaire for the parents. The estimated prevalence of ADHD was 3.4%. ADHD manifestations affect boys more than girls. In addition, ADHD was more frequent among children of illiterate mothers. Finally, ADHD was significantly more prevalent among first grade children..[7]
3) Cross sectional study was carried out to assess the prevalence of Attention Deficit Hyperactivity Disorder among school children studying in primary schools of selected urban areas in Tirupati. Random sampling technique used for sample selection. Sample size was 403. The samples were identified as having features of ADHD based on parents and teacher's data by using Snap-IV Teacher and Parent Rating Scale. Findings of the study shown that among 403 school going children (7 to 11 years), 24 (5.9%) identified as having features of ADHD either of inattention, hyperactivity or ADHD-combined type; among 24 (5.9%) identified children. This study revealed that ADHD is prevalent at a rate of 5.9% among school children of 7 to 11 years; it is more prevalent in boys than girls.[8]
4) A cross-sectional survey was carried out to estimate the national prevalence of parent-reported attention deficit/hyperactivity disorder (ADHD) diagnosis and treatment among U.S. children 2–17 years of age. It included indicators of lifetime receipt of an ADHD diagnosis by a health care provider, whether the child currently had ADHD, and receipt of medication and behavioral treatment for ADHD. This survey estimated 6.1 million U.S. children 2–17 years of age (9.4%) had ever received an ADHD diagnosis. Of these, 5.4 million currently had ADHD, which was 89.4% of children ever diagnosed with ADHD and 8.4% of all U.S. children 2–17 years of age. Of children with current ADHD, almost two thirds (62.0%) were taking medication and slightly less than half (46.7%) had received behavioral treatment for ADHD in the past year; nearly one fourth (23.0%) had received neither treatment.[9]
5) A cross sectional study was conducted to assess the prevalence of attention deficit hyperactivity disorder (ADHD) among the elementary School students in Tehran. 1000 elementary school students in Tehran were used as sample of this study. Parents of the students filled the 18-item SCI-4 questionnaire for ADHD. The results showed the prevalence rate for attention deficit was 4.1%, hyperactive impulsive was 4.7%, and combined type was 1.7%. The prevalence rate of ADHD in boys was higher than girl students..[10]
6) A quantitative study was conducted to examine the knowledge levels of middle school teachers in South Texas in relation to attention deficit hyperactivity disorder (ADHD). The objective of the study was to examine the middle school teacher's level of knowledge regarding attention deficit disorder. The sample for this study involved 107 teachers from five predominately Hispanic middle schools in South Texas. The middle schools were in three independent school districts. Knowledge of Attention Deficit Disorders Scale were used to collect the data. Data were collected during the 2008-2009 school year through survey method. Results indicated that teachers had lower scores related to general knowledge and knowledge of the disorder.[11]
7) A descriptive cross sectional study was conducted to investigate knowledge and attitudes of teachers towards children with ADHD in Zarqa city, Jordan. The objective of the study was to assess the knowledge and attitude of teachers regarding attention deficit disorder.

A standardized self-report questionnaire was used to collect data by a convenience sample of 130 teachers recruited from 13 primary schools in Zarqa city, Jordan. Findings revealed a gap in teachers' knowledge that extended across all aspects of ADHD causes and management. Teachers was having misconceptions about the causes and management of ADHD.[12]

8) A descriptive study was carried out for primary school teachers in Mumbai. The objective of the study was to assess knowledge and misperceptions about ADHD among schoolteachers in Mumbai. A total of 106 teachers from 12 English-medium schools completed the Knowledge of Attention Deficit Disorders Scale and a demographic questionnaire. Overall, the teachers lacked adequate knowledge of ADHD, with only 49% of the responses were correct.[13]
9) A descriptive cross-sectional population study was carried out, involving 62 teachers from public schools in the municipality of Sabaneta. The objective of the study was to assess the knowledge of teachers regarding hyperactive attention deficit disorder. The teachers were evaluated by the Spanish adaptation of the Knowledge of Attention Deficit Hyperactivity Disorder, an estimation scale composed of 36 items of three alternative answers which include true, false and I do not know. Teachers correctly answered a little less than half of the items in the total questionnaire which was 48.52%.[14]
10) A descriptive cross sectional study was conducted in randomly selected schools of Gampaha district, Sri Lanka. The study objective was to assess the knowledge and attitudes towards attention deficit hyperactive disorder among primary school teachers in the Gampaha district. The study was carried out with a sample of 202 subjects with a stratified sampling technique. The main findings of the study revealed that all the primary school teachers who took part in the study were not having a satisfactory knowledge regarding attention deficit hyperactive disorder.[15]

3. Research Methodology

Research approach
In this study, quantitative research approach was used to conduct the study.

Research design
The descriptive study was used to describe the knowledge of primary school teachers regarding ADHD.

Research variables

Study variable
Knowledge regarding attention deficit hyperactive disorder among primary school teachers in selected schools at Maharashtra.

Demographic variables
The selected socio-demographic variables include age, gender, Qualification, teaching experience, Source of information about ADHD.

Research setting
The settings selected for present study was at selected primary schools, Maharashtra.

Sample: Teachers those who fulfill the inclusion criteria- primary school teachers in selected primary schools

Sample size: Sample comprised 100 primary school teachers in selected schools at Maharashtra.

Sampling technique: Convenient sampling technique used to select the samples for study.

Eligibility criteria

Inclusion criteria
The study includes:
- The primary school teachers who are willing to participate in the study.
- Primary school teachers who are available at the time of data collection.
- Primary school teachers who have completed at least their Diploma, B.Ed, D.Ed, or master degree in teaching.

Exclusion criteria
The study excludes:
- Primary school teachers who are sick and absent.
- The primary school teachers who are not willing to participate in the study.
- Primary school teachers who have recently acquired session on attention deficit hyperactive disorder.

Data Collection technique:

Selection and development of tool
In this study 2 types of tool were used by the researcher. Structured knowledge questionnaire consisting of two sections.
1) Baseline variables
2) Structured knowledge questionnaire on Attention deficit hyperactive disorder.

Data analysis: The descriptive and inferential statistics

4. Result

Table 1: Distribution of primary school teachers according to demographic variable, N=100

Sr. No.	*Demographic Variable*	*Frequency*	*Percentage*
1	**Age**		
	a. 22-30 yrs	20	20%
	b. 31-40 yrs	49	49%
	c. >40 yrs	31	31%
2	**Gender**		
	a. Male	53	53%
	b. Female	47	47%
3	**Educational Qualification**		
	a. Diploma in education	11	11%
	b. Degree in education	48	48%
	c. Master's in education	41	41%
4	**Teaching experience**		
	a. >5	11	11%
	b. 6-10	32	32%
	c. 11-15	26	26%
	d. >15	31	31%
5	**Source of information**		
	a. In-service education regarding Attention Deficit	0	0%

	Hyperactive Disorder		
	b. Internet	67	67%
	c. Social Media/TV	20	20%
	d. Books/magazine	13	13%

Table 1: shows the distribution of primary school teachers according to their demographic variables; where in the majority (49%) were in the age group of 31-40 years and (53%) were male participants. Most of the teachers (48%) were completed their degree in education. Majority of teachers (31%) were having more than 15 years teaching experience.

Table 2: Distribution of Respondents according to their knowledge levels, N=100

Knowledge level	Category	Classification of respondent	
		Number	Percentage
Poor	0 - 8	0	0%
Average	9 -16	91	91%
Good	17 - 25	9	9%

Table no-02 shows that, the out of 100 primary school teachers, (9%) had good knowledge and (91%) had average knowledge and none of them had Poor knowledge.

Table 3: Association between levels of knowledge with socio demographic variable, N=100

S. No.	Demographic Variables	N	Level of knowledge				Chi Square
			14< Median		14≥ Median		
			45	45%	55	55%	
1	**Age**						1.26 df = 2 P ≥ 0.05 NS
a)	22-30 yrs	20	12	12%	8	8%	
b)	31-40 yrs	49	19	19%	30	30%	
c)	>40 yrs	31	14	14%	17	17%	
2	**Gender**						0.025 df = 1 P ≥ 0.05 NS
a)	Male	53	20	20%	33	33%	
b)	Female	47	25	25%	22	22%	
3	**Educational Qualification**						5.07 df = 2 P ≥ 0.05 NS
a)	Diploma in education	11	2	2%	9	9%	
b)	Degree in education	48	22		26		
c)	Master's in education	41	21		20		
4	**Teaching experience**						6.65 df = 2 P <0.05 Significant
a)	a. >5	11	4	4%	7	7%	
b)	b. 6-10	32	15	15%	17	17%	
c)	c. 11-15	26	12	12%	14	14%	
d)	d. >15	31	14	14%	17	17%	
5.	**Source of information**						
a)	In-service education regarding Attention Deficit Hyperactive Disorder	0	0	0%	0	0%	P ≥ 0.05 Not Significant
b)	Internet	67	31	31%	36	36%	
c)	Social Media/TV	20	8	8%	12	12%	
d)	Book/magazine	13	6	6%	7	7%	

P – Level of Significance
NS – Non significant
df – Degree of freedom

The data presented in the table no. 3 shows that association one group post test knowledge score with socio demographic variables. It indicates that there is association between the levels of knowledge of primary school teachers regarding attention deficit hyperactive disorder with teaching experience (0.0358).

5. Discussion

The first objective was to assess the level of knowledge regarding attention deficit hyperactive disorder in children among primary school teachers in selected schools at Maharashtra.

In present study, assessment of level of knowledge regarding attention deficit hyperactive disorder among primary school teachers revealed that most of the primary school teachers (91%) had average knowledge and 9% had good level of knowledge and none of them had poor knowledge.

The second objective was to find out the association between level of knowledge regarding attention deficit hyperactive disorder in children among primary school teacher with selected socio demographic variables such as Age, Gender, educational qualification, experience in teaching, source of information.

The analysis revealed that there is association between the levels of knowledge of primary school teachers regarding attention deficit hyperactive disorder with teaching experience (P=0.0358).

6. Recommendations

As the problems faced during the study and keeping the limitations in view, the following recommendations are suggested for further research.

1) A similar research can be conducted on large scale for the purpose of better generalization.
2) The study can be conducted to related to assessment of knowledge and attitude of primary school teachers

regarding attention deficit hyperactive disorder in children.

3) Tool may be modified to include the other factors regarding teachers' strategies to handle the children with attention deficit hyperactive disorder.
4) Structured teaching programme can be conducted for primary school teachers regarding attention deficit hyperactive disorder.

7. Limitations

1) The study will be limited to the primary school teachers of selected primary schools at Maharashtra.
2) The study is limited to 100 samples.

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