

A Study to Assess the Knowledge and Attitude regarding Attention Deficit Hyperactivity Disorder among Primary School Teachers Working in Selected Primary Schools of Kolkata

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Abstract: Attention Deficit Hyperactivity Disorder is one of the most widely studied neuro-developmental disorders in children. The behaviours associated with ADHD may be first observed by teachers and they play a pivotal role in the recognition, referral and treatment of ADHD. The objectives of the present study were (i) to assess the knowledge and attitude of primary school teachers regarding ADHD (ii) to associate the knowledge and attitude with selected demographic variables and (iii) to correlate knowledge and attitude. A cross sectional descriptive research design with survey approach was used among 110 primary school teachers selected from seven schools of Kolkata. A semi structured questionnaire was developed for the study and non probability purposive sampling technique was used. One way ANOVA, Chi square and correlation coefficient tests were used for statistical analysis. Results revealed that more than half (65.5%) of the primary school teachers had only average knowledge about ADHD where as maximum (87.3%) of the subjects had positive attitude. There was no significant association of their age, professional qualification, teaching experience and marital status with their knowledge and attitude. There was no significant relationship ($r=0.124$) between their knowledge and attitude. Study concluded that teachers need to be educated further regarding ADHD.

Keywords: ADHD: Attention Deficit Hyperactive Disorder, Knowledge, Attitude, Primary School Teachers, Primary schools

1. Introduction

Children are the greatest gifts of god to humanity. Attention Deficit Hyperactivity Disorder is the most common behavioral disorder of childhood and generally thought to account for the majority of referral for mental health treatment. ADHD is a frequently diagnosed disorder with a high impact affecting multiple facets of social life³. ADHD institute report, the mean worldwide prevalence of the disorder, between 5.29 - 7.1%⁸. CDC reports (2013) shows a significant increase in school age children with a diagnosis of ADHD to 11% in US⁵. It affects 1 in 20 children in USA as recorded by World Psychiatry (2003)⁶.

Therefore identifying affected children early and referring them for treatment is of great importance. Many a time the behaviors associated with ADHD are first observed in the classroom setting and a teacher is the first person to raise concerns about the child. Teachers play an important role in the initial screening for ADHD²⁴. Identifying and treating them would reduce the burden of this disorder and may help in better management of the co-morbid conditions in these children⁷. 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 teachers³¹. Insufficient knowledge and negative attitude towards ADHD and its treatment among teachers result in lack or improper implementation of management recommendations leading to treatment failure⁴. 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 crucial².

2. Objectives of the Study

- 1) Assess the knowledge of primary school teachers regarding ADHD.
- 2) Assess the attitude of primary school teachers regarding ADHD.
- 3) Associate the knowledge and attitude of primary school teachers with selected demographic variables (Age, Years of teaching experience, Educational qualification, Marital status).
- 4) Correlate the knowledge and attitude of teachers regarding ADHD.

Conceptual framework: Modified from Rosen Stochs and Becker Maiman's Health belief model

3. Review of Literature

Juneja M et al (2014) conducted a study in Delhi to estimate the prevalence of ADHD among 500 school children using Connors' parents and teachers rating scales and DSM IV criteria. Fifty one (10%) children had positive scores for ADHD. The study concluded that, ADHD is an important behavior problem in adolescents.⁴⁸ Jarque F S et al (2013) conducted a study to analyse the knowledge, misconceptions and lacks about ADHD in a sample of 193 teachers. The results indicated an average knowledge score in general knowledge, symptoms /diagnosis and treatment of ADHD. Their knowledge correlated positively with years of experience with hyperactive children, number of hyperactive children in the class and level of perceived self efficacy.⁴⁰

Alkahtani KDF (2013) conducted a descriptive study at Riyadh among four hundred and twenty-nine (429) randomly

selected primary school teachers using KADDS self-reported questionnaire. Study results reflect poor knowledge of ADHD and revealed that teachers' level of knowledge of ADHD was positively related to their prior training and experience with ADHD.⁵⁵ In the study conducted by **Perold M et al (2010)** among 824 school teachers, suggest that there is a substantial lack of knowledge about ADHD among teachers in primary schools in the periphery of the Cape Metropole.

4. Materials and Methods

A cross sectional descriptive research design with survey approach was adopted in the study. The study was conducted among 110 primary school teachers from eight primary schools of Kolkata. As per the inclusion criteria the subjects were included in the study using non probability purposive sampling. Institutional ethical approval and written informed consent were accorded prior to the study. Pilot study was also conducted among 10 primary school teachers.

Research variables under study were knowledge and attitude of Primary school teachers regarding ADHD. Data collection was done by survey method using semi structured questionnaire. The validity and reliability of the tool was established prior to data collection. One way ANOVA, Chi square test and Correlation coefficient were used for statistical analysis.

5. Analysis & Interpretation

Table 1: Distribution of Primary school teachers according to Socio demographic data n=110

S No	Parameters	Frequency	Percentage	
1	Age	20-30	19	17.3
		31-40	33	30.0
		41-50	28	25.5
		51 and above	30	27.3
2	Sex	Male	6	5.5
		Female	104	94.5
3	Marital Status	Married	82	74.5
		Unmarried	20	18.2
		Divorce	1	0.9
		Widow	7	6.4
4	Professional qualification	TTC	24	21.8
		Graduate	52	47.3
		Post Graduate	34	30.9
5	Years of teaching experience	0-10	50	45.5
		11-20	27	24.5
		21-30	29	26.4
		31 and above	4	3.6

The table 1 shows that out of 110 subjects, 30% were in the age group 31-40 yrs and maximum (94.5%) were female teachers. It is also evident that near to half of the teachers (47.3%) were graduates and 30.9% were post graduates. Teaching experience of the primary school teachers varied from less than 10yrs (45.5%) to more than 30 yrs(4%).

Table 2: Distribution of Primary school teachers as per their knowledge score, n=110

Knowledge Score	Frequency	Percentage
Poor knowledge	16	14.5
Average knowledge	72	65.5
Good knowledge	22	20.0
Total	110	100.0

Table 2 depicts that more than half (65.5%) of the primary school teachers had only average knowledge about ADHD and around 15% of them had poor knowledge pertaining to various aspects of ADHD.

Table 3: Distribution of Primary school teachers according to attitude score n=110

Attitude Score	Frequency	Percentage
Positive attitude	96	87.3
Negative attitude	14	12.7
Total	110	100.0

The Table 3 depicts that maximum (87.3%) of the subjects had positive attitude towards ADHD and the children suffering with ADHD and only 12.7% possess negative attitude.

Table 4: Comparison of mean knowledge score of primary school teachers with their age n=110

Age	Mean knowledge score	S D	F value	p value
20-30 yrs	15.47	2.435	1.831	0.146
31-40 yrs	16.64	3.090		
41-50 yrs	16.04	3.882		
51 yrs and above	17.53	3.277		

df 109 (N1=3,N2=106), Table value 2.690

Table 5: Comparison of attitude score of primary school teachers with their Professional qualification n=110

Attitude score	Prof qualification			Total	Chi Square value	P value
	TTC (f %)	Grad (f %)	PG (f %)			
Positive attitude	21	44	31	96	0.798	0.671
Negative Attitude	3	8	3	14		
	12.5	15.38	8.82	12.73		
Total	24	52	34	110		
	100	100	100	100		

df = 2, Table value 5.99

Table 5 compares the attitude scores of Primary school teachers with their professional qualification. The Pearson Chi-Square value is 0.798 which is less than table value with p value 0.671 which is not significant. It is evident that there is no significant association of attitude scores of Primary school teachers with their professional qualification.

Table 6: Correlation of knowledge and attitude scores of Primary school teachers

Correlation between knowledge and attitude	r value	P Value
	0.124	0.197

Table 6 depicts the correlation between knowledge and attitude scores. The r value computed is 0.124 which reflects

a weak correlation between two variables. The p value is 0.197 which is not significant. Hence it can be concluded that there is no significant relation between knowledge and attitude scores of Primary school teachers regarding ADHD.

6. Discussion and Conclusion

Present study showed that more than half (65.5%) of the subjects had only average knowledge about ADHD and around 15% of them had poor knowledge pertaining to various aspects of ADHD. The results are in consistent with **Kos M J (2008)** study which shows on average, teachers correctly answered 60 % of the knowledge items. The study results depicted that maximum (87.3%) of the subjects had positive attitude towards ADHD and the children suffering with ADHD and only 12.7% possess negative attitude. These results are consistent with **Kos M J (2008)** study findings.

The present study showed there is no significant correlation between knowledge and attitude scores. The results are consistent with various study results like **Murray EK (2009)** and **Brook U et al (2000)** study which shows no correlation between teachers knowledge of ADHD and their attitude. Results from this study bring 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 offer adequate teaching, assistance, and support for children with ADHD.

7. Recommendations

- 1) A comparative study can be undertaken to assess the knowledge and attitude of teachers with patents of ADHD children.
- 2) Schools should include staff development programs as a continuing activity to improve the learning experiences of the teachers.
- 3) Institutions of higher education as well as alternative teacher education programs should enhance teacher preparation courses to address conditions or disorders that affect students with learning and behavioral disabilities, such as ADHD.

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