

Effectiveness of Video-Assisted Teaching on Knowledge and Attitude Regarding Attention Deficit Hyperactivity Disorder among Primary School Teachers in Gurugram, Haryana, India: A Pre-Experimental Study

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ABSTRACT

The study was conducted in selected schools of Gurugram, Haryana. Sixty (60) primary school teachers were selected from three schools of Gurugram by using total enumeration sampling technique. Self-structured knowledge questionnaire and attitude rating scale was used to assess the knowledge and attitude of primary school teachers regarding ADHD. The findings revealed that in the pre-test, majority 41(68.3%) of teachers had inadequate knowledge and 19(31.7%) had moderate knowledge and 28(46.7%) had unfavourable attitude and 32(53.3%) had Neutral attitude whereas in the post-test, 15(25%) had moderate knowledge and majority 45(75%) had adequate knowledge and 13(21.7%) had neutral attitude and majority 47(78.3%) had favourable attitude regarding ADHD. Paired "t" test was used to observe differences between pre and post-test mean scores and were found statistically significant at 0.05 level. The study concluded that educational material like video assisted teaching had shown significant improvement in knowledge and attitude of primary school teachers.

KEY WORDS: ATTENTION DEFICIT HYPERACTIVITY DISORDER, ATTITUDE, KNOWLEDGE, PRIMARY SCHOOL TEACHERS.

INTRODUCTION

Every kid has the intellectual ability to understand and experience the emotional and physical state of others and have the abilities that might help to reduce discomfort of others (Zahn-Waxler et al. 1984). The well-being, safety, motor and cognitive development of today's children will determine the quality of tomorrow's world, and perhaps even its survival (Sharma et al. 2018). According to global burden of disease, it has been suggested that by the year (2020), mental disorders in the children will increase by more than 50% world- wide and will be among the leading cause of childhood illness and dysfunction. The worldwide occurrence of ADHD is found to be 5.29% in kids, 7.1% in teenagers and 3.4% in adult (Danielson et al. 2018). The global prevalence of any mental disease was expected to be 13.67 percent throughout a lifetime; however, the present rate is 10.56 percent (Alshehri et al. 2020).

ADHD is leading issue affecting many children and adults. ADHD is among earliest occurring neurodevelopmental disorders with onset of the condition during formative years and can continue through early life and adulthood. ADHD refers to behavior pattern that is troublesome and is characterized by inattention, hyperactivity or impulsivity that interrupts the growth and functioning and is identified by six or more manifestations from the inattention and hyperactivity & impulsivity group of criteria. Manifestations of ADHD must be exhibited in 2 or more settings (it could be at home, school, or work) and the symptoms must be persistent for minimum 6 months of duration and negatively impacts the social, academic or occupational functioning (American Psychiatric Association. (2013). Although there are various successful management techniques for ADHD, it may lead to academic, vocational and social impairment, if it is left untreated (Cortese 2020).

ADHD is considered to be the result of combination of various factors like biological, psychological and environmental. About 80% of ADHD cases are caused by genetic factors (Biederman et al. 2002). In ADHD, inattention is evident in social and educational context. Manifestations of inattention

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includes difficulty in holding attention, not able to finish assignment and not able to complete routine housework and school work. Manifestations of hyperactivity comprises squirming, unable to sit quietly in class, at all the times “on the go,” and tend to talk a lot, while a manifestation of impulsive behavior is child cannot wait for their turn (Youssef et al. 2015). Furthermore, the issue is not confined to the childhood years; it has an impact on their mental health and social well-being as adults. (Mpango et al. 2017; Mazaheri et al. 2020).

The Primary school teachers are primary person who notice the signs and symptoms of hyperactivity or inattentive behaviors in the classroom and should be able to manage them and to take a right action (Khademi et al. 2016). Teachers are responsible for teaching the skills to the learners that are part of the curriculum but the teachers also have the responsibility of teaching the learners to function in a way that will help the them to reach educational and societal expectations. The work of the teacher becomes difficult and stressful with the children’s having ADHD (Safaan et al. 2017). An instructor has an important role to play in assessing the behavioral and academic issues caused by their extensive interaction with children in different unstructured and structured environments (Mazaheri et al. 2020).

A study conducted in Egypt in (2017) determined that majority 59% of primary school teachers had very little information as compared to only 10.2% adequate information about ADHD. 81.4% of elementary school teachers had never attended any educational program during college regarding ADHD (Safaan et al. 2017; Mazaheri et al. 2020). Another study found that only about one-third of students with ADHD receive classroom management and fewer than two-thirds of students with ADHD receive educational support (i.e., school-based educational support, intervention, or accommodation, such as tutoring, extra help from a teacher, preferential seating, extra time to complete work, or being enrolled in special education) (DuPaul et al. 2018). Traditional ADHD teacher training programs are beneficial in the short term, but initial improvements decrease over time, according to a recent meta-analysis (Mazaheri et al. 2020).

This suggests that more effective long-term solutions are needed (Ward et al. 2020). ADHD negatively impact children’s educational achievement because they face problems in preserving concentration, inability to complete given work, being forgetful and engages in non- goal oriented physical activities. There is a social and academic stigma related with ADHD and most of the parents faces difficulties in accepting terms with a diagnosis of ADHD (Moldavsky et al. 2013). Early recognition and management had shown favourable prognosis in several childhood psychiatric disorders. Hence, it is essential to stimulate the teachers by making them realize of their role which is very crucial in early recognition of trouble faced by the children’s and make early referral to the health professionals (Arullapan et al. 2019; Ward et al. 2020).

According to a recent population-based study utilising

DSM-IV criteria, 15.5 percent of schoolchildren in Grades 1 to 5 suffer from attention deficit hyperactivity disorder. (Rowland et al. 2013). According to the Innovative journal of medical and health research (2016), 3.66 percent of rural Indians suffer from Attention Deficit Hyperactivity Disorder. Based on above literatures the researcher felt that there was need of increasing awareness about ADHD among parents, instructors, and educationists. There are limited researches done on the ADHD in our community. Therefore, it was necessary to conduct a study to assess information and attitude among teachers about ADHD and to sensitize educationists about the need to recognize the manifestations of this disorder at an early stage and refer them to the health-care system (Gupta et al. 2020).

MATERIAL AND METHODS

The Quantitative Research Approach, one group pre-test post-test design was used for this study which was conducted in three selected schools of Gurugram, Haryana. The study population was primary school teachers teaching class from 1st to 5th. The sample size was 60 primary school teachers which were selected using total enumeration sampling technique. Before Data collection, research proposal approval was taken from the research committee of SGT University. The investigator took authorization from the Dean Faculty of Nursing, SGT University and from principal of selected schools of Gurugram, Haryana. The data collection was done in between 5th /04/2021 to 14th/04/2021. Self-introduction and objectives of the study was explained to all the respondents. Written consent was obtained from all participants and confidentiality was maintained by assuring that information provided by them will only be used for study purpose. Data was collected by using self-constructed knowledge questionnaire and attitude likert rating scale.

The instrument contains 3 sections. Section-A included socio-demographic variables such as age, sex, marital status, qualification, teaching grade, teaching experience, previous knowledge regarding ADHD, if yes specify the source of information. Section-B comprises of self-constructed set of questions on knowledge about ADHD which has 30 multiple choice questions (MCQs). Section -C A five-point Likert scale was developed for evaluating attitude of primary school teachers regarding ADHD. This scale contains 20 statements among which 10 statements were positive and 10 statements were negative. After data collection, it was analyzed using statistical package for social science (SPSS). Descriptive statistics like frequency, mean, percentage and standard deviation were used and inferential statistics t-test and chi-square was used. Findings were presented in tables.

RESULTS AND DISCUSSION

The findings of this study revealed that (table-1) depicts the socio-demographic information of primary school teachers according to which 9(15%) teachers were in the 21-25 years category, 17(28.3%) were in the category of 26-30 years, 19(31.7%) were in category 31-35 years and 15(25%) were in category of >35 years. Only 2(3.3%) of the participants

were males and majority 58(96.6%) of the participants were females. Majority 42(70%) of the teachers were married, 15(25%) were unmarried and only 3(5%) were in category of others. Majority 37(61.6%) of the participants were in the category of masters & above and 23(38.3%) of the participants were in the category of bachelor. 10(16.67%) of the participants were teaching the 1st grade, majority 14(23.33%) were teaching the 2nd grade, 12(20%) of the participants were teaching 3rd grade, 13(21.67%) were teaching 4th grade and 11(18.33%) were teaching 5th

grade children. 15(25%) had teaching experience less than 3 years, majority 29(48.3%) had experience between 3-8years, 15(25%) had experience between 9- 14 years and only 1(1.6%) had experience of 15 years and above. Only 14(23.3%) were having previous knowledge about ADHD and majority 46(76.6%) were having no information about ADHD. Only 4(6.6%) knew about ADHD through media, 10(16.6%) knew about ADHD through internet, and no one had information through conference, books and other sources.

Table 1. Depicts the socio-demographic information of primary school teacher N=60

S.no	Demographical variables	f	%
1.	Age (in years):		
	21-25	09	15
	26-30	17	28.33
	31-35	19	31.66
	> 35	15	25
2.	Gender:		
	Male	02	3.33
	Female	58	96.66
	Transgender	00	00
3.	Marital status:		
	Married	42	70
	Unmarried	15	25
	Others	03	5
4.	Qualification:		
	Masters and above	37	61.66
	Bachelor	23	38.33
5.	Teaching grade:		
	1st class	10	16.67
	2nd class	14	23.33
	3rd class	12	20
	4th class	13	21.67
	5th class	11	18.33
6.	Teaching experience:		
	< 3 years	15	25
	3-8 years	29	48.33
	9-14 years	15	25
	15 and above	01	1.67
	Previous knowledge regarding ADHD:		
Yes	14	23.33	
No	46	76.67	
7.	If yes, specify the source of information:		
	Conference	00	0
	Media	04	6.66
	Books	00	0
	Internet	10	16.66
	Other	00	0
8.			

The table displays in pre-test, mostly 41(68.3%) teachers were in inadequate category and 19(31.7%) were in category of moderate knowledge and in post-test 15(25%) teachers were in category of moderate knowledge and majority 45(75%) teachers were in category of adequate. Similar results were found in study which revealed that during pre-

test no school teacher had good knowledge, in experiment group whereas 18(60%) have average knowledge and 12(40%) below average knowledge whereas in post-test test in experiment group 17(56.67%) school teacher had good knowledge, whereas 9(30%) have average knowledge and 4(13.33%) below average knowledge (Kaur et al. 2020).

Table 2. Depicts frequency and percentage distribution of pre & post-test information level about ADHD among the teachers N=60

Information category	Inadequate (0-10)		Moderate(11-20)		Adequate (21-30)	
	f	%	f	%	f	%
Pretest	41	68.3%	19	31.7%	0	0
Posttest	0	0	15	25%	45	75%

Table 3. Depicts frequency and percentage distribution of pre & post-test attitude about ADHD of teachers N=60

Attitude	Unfavourable (20-46)		Neutral (47-73)		Favourable (74-100)	
	No.	%	No.	%	No.	%
Pre-test	28	46.7%	32	53.3%	0	0
Post-test	0	0	13	21.7%	47	78.3%

Table 4. Depicts the comparison of pre-test & post-test information scores about ADHD of teachers. N=60

Knowledge	Mean±s.d	Mean difference	“Paired t value”
Pre test	9.85±2.21	12.55	t=25.936 p=0.00*
Post test	22.40±3.04		

The table displays in pre-test, 28(46.7%) teachers were in the unfavourable attitude category and 32(53.3%) were in Neutral attitude category, whereas in the post-test 13(21.7%) were in neutral attitude category and majority 47(78.3%) were in favourable attitude category.

Interpretation-Mean difference of 12.55 was found between pre & post-test information score. “Paired t test” was performed to correlate gap between pre & post-test information score and has shown significance. This clearly shows VAT prepared by the researcher had shown great enhancement in information level of teachers in posttest. These findings were congruent with findings in which the pretest mean score of knowledge was 15.66 whereas in the posttest the mean score was 23.98 which clearly shows the significant improvement in the teachers’ knowledge (Tungoe et al. 2021). One another study findings were congruent in which experimental group’s mean pre-test attention deficit score was 31.03, and group’s mean post-test attention deficit score (17.63) was significantly lower

Table 5. Depicts the comparison of pre & post-test attitude score about ADHD of teachersN=60

Attitude	Mean±s.d	Mean difference	“Paired t value”
Pre test	48.97±5.74	30.51	t=23.299 p=0.00*
Post test	79.48±7.82		

than the pre-test score. The influence of behavior therapy is responsible for the difference between the two means. here was a significant link between the mean difference in attention deficit score of schoolchildren with attention deficit disorder (Vanitha 2021).

Interpretation: Mean difference of 30.15 was found between pre & post-test attitude score. “Paired t test” was done to correlate the gap between pre & post-test and has shown significance. This finding was consistent with the findings where it was revealed that the post-test mean score of knowledge was higher than the pretest mean score. Hence, it was proved that video-based teaching was beneficial (Bhasin et al. 2020).

The association of post-test information level was not found significant with other selected demographical factors, except teaching experience which had shown significance. Alshehri et al. (2020) findings were congruent with this finding of the study. The association of post-test attitude

was not found significant with selected demographical factors (Alshehri et al. 2020).

CONCLUSION

The findings of the present study revealed that teachers have inadequate knowledge regarding ADHD and also shows that schools should invest in faculty development, and plan workshops to train teachers to deal with the particular requirements of children with ADHD. The educational material in the form of video assisted teaching had shown to be beneficial for the teachers in enhancing their information and attitude about ADHD. The knowledge gained from the educational programme will assist teachers in recognising and managing ADHD pupils in schools and other contexts.

Conflict of interests: There was no conflict of interest among the authors.

Ethical Statement: Ethical approval was given by the Institutional Ethical Committee in a meeting held on 28/11/2020. Ethical Approval Number is FON/SGTU/20/262/15.

Data Availability Statement: The database generated and /or analysed during the current study are not publicly available due to privacy, but are available from the corresponding author on reasonable request.

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