



A Study to Assess the Effectiveness of an Awareness Programme on Knowledge and Attitude Regarding Attention Deficit Hyperactive Disorder among Primary School Teachers in Selected Schools Udaipur

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ABSTRACT

This study aimed to evaluate the effectiveness of an awareness program on improving primary school teachers' knowledge and attitudes regarding Attention Deficit Hyperactive Disorder (ADHD). A total of 50 primary school teachers participated in a pre-test and post-test assessment using structured questionnaires to measure their knowledge and attitude levels before and after the awareness intervention. The findings revealed a significant improvement in both knowledge and attitudes following the program. In the knowledge assessment, the mean pre-test score of 13.48 (SD = 2.55) rose to a mean post-test score of 28.74 (SD = 1.47), yielding a mean difference of 15.26 with a highly significant t-value of 37.87 ($p < 0.05$). Similarly, the attitude scores demonstrated substantial growth, with pre-test mean scores of 36.52 (SD = 4.23) increasing to 82.65 (SD = 1.23) in the post-test, resulting in a mean difference of 6.13 and a t-value of 38.766, confirming the effectiveness of the awareness program in fostering favorable attitudes toward ADHD among teachers. An analysis of associations between pre-test knowledge and attitude levels with selected demographic variables showed no significant associations, suggesting that initial knowledge and attitude levels were independent of demographic factors like age, gender, and professional experience. In conclusion, the study supports the hypothesis that an awareness program can significantly enhance primary school teachers' knowledge and attitudes toward ADHD, underscoring the importance of educational interventions in promoting better understanding and acceptance of ADHD in school settings.

KEYWORDS Effectiveness; Knowledge; Attitude; Awareness programme; Primary school teachers; Attention deficit hyperactive disorder

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INTRODUCTION

Life is a challenging journey that often requires motivation and support, particularly for children who face increasing stress due to modernization and societal pressures.¹ Attention Deficit Hyperactivity Disorder (ADHD), a common neurodevelopmental disorder, affects 2-14% of school-aged children and is characterized by excessive inattention, hyperactivity, and impulsivity.² ADHD can significantly impact a child's academic performance, social relationships, and overall development. While boys are diagnosed more frequently than girls, this disparity may be due to biases in teacher referrals. Despite its challenges, effective treatments—such as medication, behavioral therapy, and lifestyle modifications—can help children with ADHD manage their symptoms and improve their ability to function in various aspects of life.³

Children with ADHD often struggle with maintaining attention, managing hyperactivity, and controlling impulsivity, leading to difficulties in school and social settings.⁴ These challenges can increase the risk of academic failure, behavioral problems, and even substance abuse. Although some symptoms, like hyperactivity, may diminish with age, issues with attention and organization often persist⁵. Support from parents, teachers, and healthcare professionals is crucial to help children with ADHD reach their full potential. With proper guidance and understanding, children with ADHD can overcome these obstacles and lead productive, fulfilling lives.⁶

NEED FOR STUDY

Children are invaluable gifts, comprising nearly 40% of India's population.⁷ Over the past few decades, promoting healthy child development has garnered significant attention, and more research is required to understand and address issues affecting children, particularly Attention Deficit Hyperactivity Disorder (ADHD).⁸ Children spend a significant portion of their time in school, where they are expected to follow rules and participate in academic activities.⁹ However, ADHD, characterized by inattention, hyperactivity, and impulsivity, poses challenges in classroom settings. Teachers, as secondary caregivers, often find managing students with ADHD demanding, which affects not only academic performance but also the social and emotional development of affected children. Studies indicate that approximately 8.7% of children worldwide have ADHD, and in India, the diagnosis rate stands at 13.2%.¹⁰

ADHD's symptoms—ranging from restlessness to impulsive behavior—can lead to academic difficulties and social problems, with long-term consequences like substance abuse if



untreated. Research suggests that early detection by teachers, parents, and caregivers is critical for managing ADHD effectively.¹¹ A study conducted in Mumbai revealed that many teachers had limited knowledge about ADHD, emphasizing the need for enhanced teacher training. Another study in Pakistan demonstrated that teachers' knowledge improved significantly after a week-long training program on ADHD, with the effects sustained for six months. This highlights the importance of equipping educators with the knowledge to recognize and support students with ADHD, fostering better outcomes for children's academic and social development.¹²

.PROBLEM STATEMENT

“A Study To Assess The Effectiveness Of An Awareness Programme On Knowledge And Attitude Regarding Attention Deficit Hyperactive Disorder Among Primary School Teachers In Selected Schools Of Udaipur.”

OBJECTIVES

- To determine the knowledge of primary school teachers regarding attention deficit hyperactive disorder.
- To assess the attitude of primary school teachers regarding attention deficit hyperactive disorder.
- To determine the effectiveness of an awareness programme on attention deficit hyperactive disorder in terms of gain in knowledge scores among primary school teachers.
- To find the association between mean pre-test knowledge scores on attention deficit hyperactive disorder and selected demographic variables.
- To find the association between mean pre-test attitude scores on attention deficit hyperactive disorder and selected demographic variables.

HYPOTHESIS

H₁: There will be a significant difference between mean pre- test and post-test knowledge scores of primary school teachers regarding attention deficit hyperactive disorder.

H₂: There will be a significant difference between mean pre- test and post-test attitude scores of primary school teachers regarding attention deficit hyperactive disorder.

H₃: There will be a significant association between pre- test knowledge and attitude scores of primary school teachers regarding attention deficit hyperactive disorder and selected demographic variables.

MATERIALS AND METHODS

Research Approach: A quantitative research approach was used in the study.



Research Design: Pre-experimental, one group pre-test post–research design used.

Sample: In the present study, the sample comprises 50 primary school teachers.

Sampling Technique: In the present study, the samples were selected through a non-probability purposive sampling technique.

Setting: In the present study, the setting was selected schools in Udaipur city.

Population: In the present study, the target population was primary school teachers working in the selected schools at Udaipur city.

Description of tool: Structured questionnaire to assess the knowledge. It consisted of three parts:

Part-I: 9 Demographic data, includes the age, gender, religion, residence, marital status, educational qualification, professional experience, number of children taught, and source of information on attention deficit hyperactive disorder.

Part-II: 35 structured questionnaires, was considered appropriate for assessing knowledge score. The selected aspects are- Definition and general information on ADHD; Causes and risk factors of ADHD; Types and signs and symptoms of ADHD; Treatment and role of teachers and parents. The maximum total score of the knowledge questionnaire was 30 (for each correct response 1 mark will be given and 0 mark for an incorrect answer).

Part -III: ADHD Attitude scale consists of 23 statements. 5 point Likert scale was developed. Each statement is scored 1 to 5 from agree to strongly disagree. Higher the score more the teachers disagree with the statement.

Ethical consideration

- Approval from the ethical committee of Venkateshwar College of Nursing Udaipur.
- Before data collection, written permission was obtained from the concerned authority of the nursing college, at Udaipur.
- Anonymity and confidentiality of subjects were maintained.
- Informed consent was obtained from the subjects.

Plan for data analysis

The data analysis will be done according to the study objectives by using descriptive and inferential statistics. The plan of data analysis would be as follows:

- Frequency, percentage, mean, and standard deviation will be calculated.
- A paired t-test will be used to test the hypothesis.
- The chi-square test will be used for association with demographic variables.

RESULTS AND DISCUSSION



The data obtained are divided into sections for easy and accurate interpretation of data. The data finding has organized under the following section:

Section A: Description of the demographic variables of primary school teachers.

Section B: Description of the samples according to pre-test & post-test level of knowledge among primary school teachers

Section C: Description of the samples according to pre-test & post-test level of attitude among primary school teachers

Section D: Analyze the effectiveness of awareness programme by comparing pre-test & post-test level of knowledge and attitude among primary school teachers

Section E: Associate between pre-test knowledge and attitude level and selected demographic variables.

Section A: Description of the demographic variables of primary school teachers:

The demographic data consists of 9 items seeking information about age, gender, religion, residence, marital status, educational qualification, professional experience, number of children taught, and source of information on attention deficit hyperactive disorder.

Table 1 Description of the demographic variables of primary school teachers N = 50

S. N.	Demographic variables	Frequency (n)	Percentage (%)	
1	Age in Years	24-32 years	9	18.00
		33-41 years	17	34.00
		42-50 years	13	26.00
		51-60 years	11	22.00
2	Gender	Male	27	54.00
		Female	23	46.00
3	Religion	Hindu	19	38.00
		Muslim	3	6.00
		Christian	28	56.00
		Others	0	0.00
4	Residence	Rural	32	64.00
		Urban	18	36.00
5	Marital Status	Single	16	32.00
		Married	27	54.00
		Widow	5	10.00
		Divorced	2	4.00
6	Professional qualification	Under graduate	33	66.00
		Post graduate	11	22.00
		M. Phil./Doctorate	3	6.00
		Others	3	6.00
7	Professional experience	Less than 5 years	11	22.00
		5-10 years	19	38.00



		10-15 years	14	28.00
		More than 15 years	6	12.00
8	No. of children taught	None	34	68.00
		1-3 children	10	20.00
		4-6 children	4	8.00
		>7 children	2	4.00
9	Sources of information	News papers and magazines	10	20.00
		Television and internet	17	34.00
		Health care personnel	10	20.00
		Family and friends	13	26.00

Age: Most of the teachers were in the age group of 33-41 years with 17 (34%), followed by those in the 42-50 years range with 13 (26%). The remaining were either 24-32 years old with 9 (18%) or 51-60 years old with 11 (22%).

Gender: The sample had more male teachers with 27 (54%) than female teachers with 23 (46%).

Religion: A majority of the teachers identified as Christian with 28 (56%), while others were Hindu with 19 (38%) and Muslim with 3 (6%). There were no teachers from other religions with 0 (0%).

Residence: A larger portion of teachers lived in rural areas with 32 (64%), while the rest lived in urban areas with 18 (36%).

Marital Status: Most teachers were married with 27 (54%), while others were single with 16 (32%), widowed with 5 (10%), or divorced with 2 (4%).

Professional Qualification: Most teachers held an undergraduate qualification with 33 (66%). Fewer had a postgraduate degree with 11 (22%) or higher qualifications like M. Phil./Doctorate with 3 (6%) or other qualifications with 3 (6%).

Professional Experience: Most teachers had between 5-10 years of experience with 19 (38%). Others had either less than 5 years with 11 (22%), 10-15 years with 14 (28%), or more than 15 years of experience with 6 (12%).

Number of Children Taught: A large majority had not taught any children with 34 (68%), while others had taught 1-3 children with 10 (20%), 4-6 children with 4 (8%), or more than 7 children with 2 (4%).

Sources of Information on ADHD: The most common source of information was television and the internet with 17 (34%), followed by newspapers/magazines with 10 (20%) and healthcare personnel with 10 (20%). Family and friends were a source of information for 13 teachers with (26%).



Section B: Description of the samples according to pre-test & post-test level of knowledge among primary school teachers:

Table 2 Description of the samples according to pre-test & post-test level of knowledge N = 50

Level of Knowledge	Pre-test		Post-test	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Inadequate	43	86.00	0	0.00
Moderate	7	14.00	5	10.00
Adequate	0	0.00	45	90.00
Total	50	100.00	50	100.00

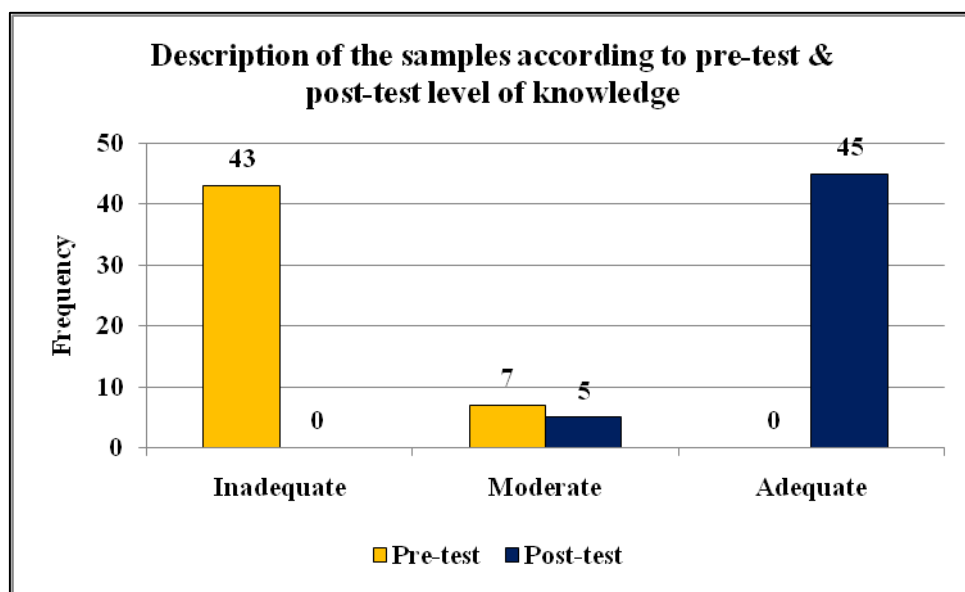


Figure 1 Description of the samples according to pre-test & post-test level of knowledge

The Table-2 & Figure-1 presents a comparison of the participants' knowledge levels before and after an intervention, categorized into three levels: Inadequate, Moderate, and Adequate. In the pre-test, the majority of participants, and 43 out of 50 (86%), had inadequate knowledge, while 7 participants (14%) demonstrated moderate knowledge and none (0%) had adequate knowledge. This indicates a low level of baseline knowledge prior to the intervention. However, after the intervention, the post-test results showed a significant improvement in knowledge levels. None of the participants (0%) remained in the inadequate category, and only 5 participants (10%) exhibited Moderate knowledge. Impressively, 45 participants (90%) attained adequate knowledge, reflecting the effectiveness of the



intervention in enhancing the participants' understanding of the subject matter. The shift from inadequate to adequate knowledge highlights the success of the educational approach used.

Section C: Description of the samples according to pre-test & post-test level of attitude among primary school teachers:

Table 3 Description of the samples according to pre-test & post-test level of attitude N = 50

Level of Attitude	Pre-test		Post-test	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Unfavorable	41	82.00	2	4.00
Moderately favorable	6	12.00	5	10.00
Favorable	3	6.00	43	86.00
Total	50	100.00	50	100.00

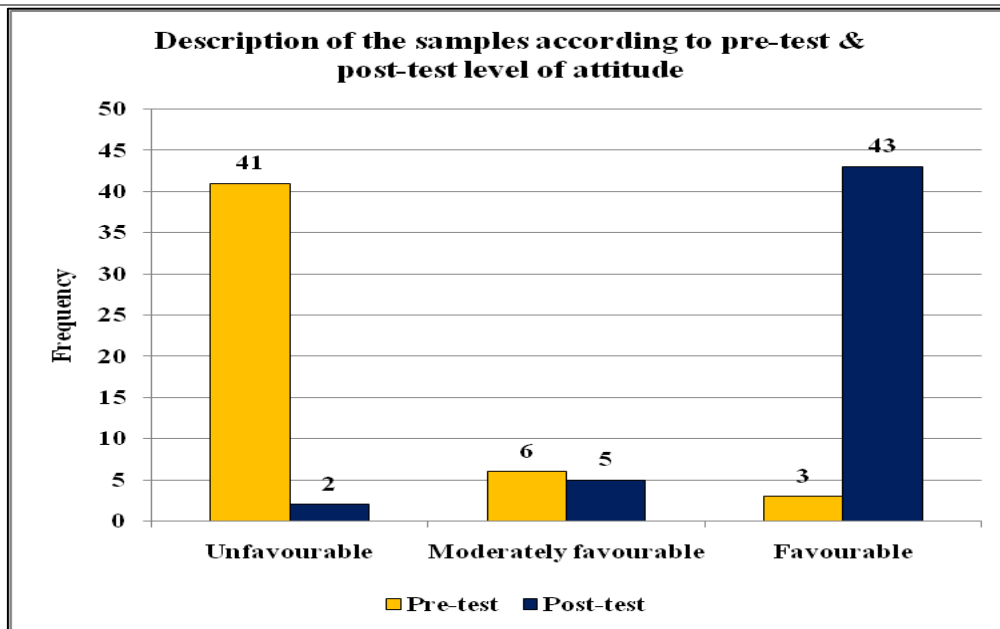


Figure 2 Description of the samples according to pre-test & post-test level of attitude

Table 3 and Figure 2 illustrate the levels of attitude among primary school teachers in the pre-test and post-test, categorized as Unfavorable, Moderately Favorable, and Favorable. In the pre-test, a large majority of teachers 41 out of 50, (82%) displayed an Unfavorable attitude, indicating a generally low level of positive attitude toward the subject matter. Only 6 teachers (12%) showed a Moderately Favorable attitude, and a small minority of 3 teachers (6%) exhibited a Favorable attitude. After the intervention, the post-test results show a notable improvement in attitude levels. Only 2 teachers (4%) remained in the Unfavorable category, while 5 teachers (10%) demonstrated a Moderately Favorable attitude. Most significantly, 43



teachers (86%) moved into the Favorable category, indicating a substantial shift towards a positive attitude. Overall, the comparison between the pre-test and post-test results reveals a significant improvement in attitude among the teachers, suggesting that the intervention was effective in fostering a more favorable outlook.

Section D: Analyze the effectiveness of awareness programme by comparing pre-test & post-test level of knowledge and attitude among primary school teachers:

Table 4 Comparative analysis of pre-test & post-test level of knowledge among primary school teachers N = 50

Test	Mean	SD	Mean Difference	df	t- value	Inference
Pre-test	13.48	2.55	15.26	49	37.87**	S
Post-test	28.74	1.47				2.70* (0.05 Level)

NS-Not Significant; ** Significant

H₁: There will be a significant difference between mean pre-test and post-test knowledge scores of primary school teachers regarding attention deficit hyperactive disorder.

Table 4 presents a comparative analysis of the pre-test and post-test knowledge levels among primary school teachers to assess the effectiveness of an awareness program on attention deficit hyperactivity disorder (ADHD). The table shows a statistically significant difference in knowledge scores between the pre-test and post-test. In the **pre-test**, the mean knowledge score was 13.48 with a standard deviation of 2.55, indicating a relatively low baseline level of knowledge among the teachers regarding ADHD. After the awareness program, the **post-test** mean knowledge score increased substantially to 28.74, with a lower standard deviation of 1.47. This increase in mean knowledge score reflects a significant improvement in the teachers' knowledge following the intervention. The mean difference between the pre-test and post-test scores was 15.26, with a calculated t-value of 37.87, which is highly significant at the 0.05 level. This supports the research hypothesis (**H₁**) that there is a significant difference between the pre-test and post-test mean knowledge scores among primary school teachers regarding ADHD. In summary, the results suggest that the awareness program was highly effective in enhancing the knowledge of primary school teachers about ADHD, as evidenced by the substantial increase in mean scores from pre-test to post-test and the significant t-value obtained.

Table 5 Comparative analysis of pre-test & post-test level of attitude among primary school teachers N = 50



Test	Mean	SD	Mean Difference	df	t- value	Inference
Pre-test	36.52	4.23	46.13	49	38.766**	S 2.70* (0.05 Level)
Post-test	82.65	1.23				

NS-Not Significant; ** Significant

Table 5 provides a comparative analysis of pre-test and post-test attitude scores of primary school teachers concerning ADHD. The results show that the **pre-test mean score** was 36.52 with a standard deviation (SD) of 4.23, while the **post-test mean score** significantly increased to 82.65 with an SD of 1.23. This reflects a **mean difference** of 46.13. The **calculated t-value** of 38.766 (with 49 degrees of freedom) is well above the critical value of 2.70 at the 0.05 significance level, indicating a statistically significant difference between the pre-test and post-test scores. This demonstrates that the difference is not due to chance, thus inferring that the attitude of primary school teachers improved significantly following the intervention. In summary, the data confirm that the awareness program had a substantial positive impact on the teachers' attitudes toward ADHD, as evidenced by the significant increase in post-test scores compared to pre-test scores.

Section E: Associate between pre-test knowledge and attitude level and selected demographic variables.

Table 6 Associate between pre-test knowledge level and selected demographic variables N = 50

S. N.	Demographic variables	df	Tabulated Value (0.05)	Calculated Chi-Square test	Inference
1	Age in Years	3	7.815	8.80	S
2	Gender	1	3.841	0.41	NS
3	Religion	3	7.815	2.75	NS
4	Residence	1	3.841	1.17	NS
5	Marital Status	3	7.815	2.52	NS
6	Professional qualification	3	7.815	3.69	NS
7	Professional experience	3	7.815	2.17	NS
8	No. of children taught	3	7.815	11.56	S
9	Sources of information	3	7.815	2.76	NS

S = Significant / NS = Non Significant

H₃: There will be a significant association between pre- test knowledge and attitude scores of primary school teachers regarding attention deficit hyperactive disorder and selected demographic variables.

Table 6 shows the relationship between primary school teachers' pre-test knowledge and attitude about ADHD and their demographic details. A Chi-Square test (χ^2) was used to



check if there was any significant association between knowledge levels and each demographic factor, with significance set at $p < 0.05$. The results indicate that Age in Years ($\chi^2=8.80$, $p < 0.05$) and Number of Children Taught ($\chi^2=11.56$, $p < 0.05$) were significantly associated with the teachers' knowledge about ADHD. This means that age and experience with children might impact how much they know about the disorder. Other demographic factors—Gender ($\chi^2=0.41$), Religion ($\chi^2=2.75$), Residence ($\chi^2=1.17$), Marital Status ($\chi^2=2.52$), Professional Qualification ($\chi^2=3.69$), Professional Experience ($\chi^2=2.17$), and Sources of Information ($\chi^2=2.76$)—did not show a significant association ($p > 0.05$ for each). This suggests that these factors do not have a noticeable impact on their initial knowledge about ADHD. In summary, only age and the number of children taught are significantly related to the teachers' pre-test knowledge, while other demographic factors do not appear to affect their understanding of ADHD. This partially supports the hypothesis that certain demographics are linked to knowledge and attitude levels. This supports the research hypothesis (**H3**) that there is a significant association between pre-test and demographic variables among primary school teachers regarding ADHD.

Table 7 Associate between pre-test attitude level and selected demographic variables **N = 50**

S. N.	Demographic variables	df	Tabulated Value (0.05)	Calculated Chi-Square test	Inference
1	Age in Years	3	7.815	0.79	NS
2	Gender	1	3.841	0.08	NS
3	Religion	3	7.815	1.96	NS
4	Residence	1	3.841	0.08	NS
5	Marital Status	3	7.815	2.68	NS
6	Professional qualification	3	7.815	6.07	NS
7	Professional experience	3	7.815	4.10	NS
8	No. of children taught	3	7.815	1.16	NS
9	Sources of information	3	7.815	1.34	NS

S = Significant / NS = Non Significant

Table 7 presents the association between primary school teachers' pre-test attitude levels towards ADHD and selected demographic variables, using the Chi-Square test (χ^2) to determine statistical significance at $p < 0.05$. The analysis shows that none of the demographic variables had a statistically significant association with teachers' pre-test attitude levels. Specifically, Age in Years ($\chi^2=0.79$), Gender ($\chi^2=0.08$), Religion ($\chi^2=1.96$), Residence ($\chi^2=0.08$), Marital Status ($\chi^2=2.68$), Professional Qualification ($\chi^2=6.07$), Professional Experience ($\chi^2=4.10$), Number of Children Taught ($\chi^2=1.16$), and Sources of Information ($\chi^2=1.34$) all had p values greater than 0.05, indicating non-significance. This means that there is no evidence to support that any of these demographic factors influence the



teachers' initial attitudes toward ADHD. Therefore, the hypothesis stating a significant association between pre-test attitude scores and demographic variables is not supported by this analysis. The research hypothesis (**H3**) not accepted that there is no significant association between pre-test and demographic variables among primary school teachers regarding ADHD.

CONCLUSION

The present study aims to assess the effectiveness of the awareness programme on knowledge and attitude regarding attention deficit hyperactive disorder among primary school teachers in the selected college of Udaipur Rajasthan. The quantitative research approach and pre-experimental one-group pre-test post-research design was adopted for this study. The non-probability purposive sampling technique was used for data collection. Data were collected from the primary school teachers to assess the level of their knowledge and attitude among the primary school teachers by using a structured questionnaire and likert scale before and after the awareness programme. The collected data were tabulated and analyzed by descriptive and inferential statistics. The study findings showed that the awareness programme was effective in improving the knowledge and attitude of nursing students regarding attention deficit hyperactive disorder. There was a significant difference between the pre-test knowledge score and post-test knowledge score after the administration of the awareness programme regarding the knowledge of attention deficit hyperactive disorder at the 0.05 level of significance. There was a significant association between the pre-test level of knowledge, attitude and demographic variables.

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