

# Effectiveness of Structured Teaching Programme on Knowledge Regarding Attention Deficit Hyperactivity Disorder in School Children among Primary School Teachers

Suman Lora

Nursing Tutor, BGSB University, Rajouri, Jammu and Kashmir, India

DOI: <https://doi.org/10.52403/ijshr.20230403>

## ABSTRACT

**Background:** A pre-experimental study was conducted to assess the effectiveness of structured teaching programme on knowledge regarding attention deficit hyperactivity disorder in school children among primary school teachers in selected schools, Sikar district, Rajasthan. A total sample of 100 primary school teachers were selected using purposive sampling. The objectives of the study were to assess the level of knowledge regarding attention deficit hyperactivity disorder among primary school teachers before and after structured teaching programme and to determine the effectiveness of structured teaching programme on knowledge regarding attention deficit hyperactivity disorder among primary school teachers. The final objective was to find out the association between pre-test level of knowledge and selected demographic variables.

**Materials and Methods:** A one-group pre-test post-test design was used to conduct the study. A sample comprising of 100 primary school teachers were enrolled using purposive sampling technique. The conceptual framework of the study was based on Imogene King's goal attainment model. Tools used for data collection were demographic performa and structured knowledge questionnaire.

**Results:** Data analysis was done using descriptive and inferential statistics. Findings of the study revealed that the mean post-test knowledge score  $29.11 \pm 6.23$  was significantly higher than the mean pre-test knowledge score  $11.68 \pm 8.62$  ( $p < 0.05$ ). Paired t value computed at  $22.038^*$  was statistically significant at  $p < 0.05$ . which revealed that, there is significant increase

in the mean post-test knowledge score. Significant association was observed at 0.05 level between source of Information, Type of family and Type of Occupation with knowledge level.

**Conclusion:** The findings of the study confirmed that the structured teaching programme was significantly effective in improving the knowledge regarding attention deficit hyperactivity disorder among primary school teachers.

**Keywords:** Structured teaching programme, Knowledge, attention deficit hyperactivity disorder (ADHD), primary school teachers.

## I. INTRODUCTION

Attention-deficit/hyperactivity disorder (ADHD) is one of the most common mental disorders affecting children. Symptoms of ADHD include inattention (not being able to keep focus), hyperactivity (excess movement that is not fitting to the setting) and impulsivity (hasty acts that occur in the moment without thought). ADHD is considered a chronic and debilitating disorder and is known to impact the individual in many aspects of their life including academic and professional achievements, interpersonal relationships, and daily functioning (Harpin, 2005). ADHD can lead to poor self-esteem and social function in children when not appropriately treated (Harpin et al., 2016). Adults with ADHD may experience poor self-worth, sensitivity towards criticism, and

increased self-criticism possibly stemming from higher levels of criticism throughout life. An estimated 8.4% of children and 2.5% of adults have ADHD (Danielson, 2018; Simon, et al., 2009). ADHD is often first identified in school-aged children when it leads to disruption in the classroom or problems with schoolwork. It is more commonly diagnosed among boys than girls given differences in how the symptoms present. However, this does not mean that boys are more likely to have ADHD. Boys tend to present with hyperactivity and other externalizing symptoms whereas girls tend to have inactivity<sup>1</sup>.

It is normal for children to have trouble focusing and behaving at one time or another. However, children with ADHD do not just grow out of these behaviours. The symptoms continue, can be severe, and can cause difficulty at school, at home, or with friends. There are three different ways ADHD presents itself, depending on which types of symptoms are strongest in the individual<sup>2</sup>.

The primary features of ADHD include inattention and hyperactive-impulsive behaviour. ADHD symptoms start before age 12, and in some children, they're noticeable as early as 3 years of age. ADHD symptoms can be mild, moderate or severe, and they may continue into adulthood. There are three subtypes of ADHD: Predominantly inattentive where the majority of symptoms fall under inattention. Predominantly hyperactive/impulsive where the majority of symptoms are hyperactive and impulsive. Combined where this is a mix of inattentive symptoms and hyperactive/impulsive symptoms<sup>3</sup>.

The study was conducted in selected schools of Mangalagiri, Guntur district, Andhra Pradesh. Fifty subjects of primary school teachers and sixty subjects of parents were selected by using convenient sampling technique. A structured questionnaire was developed to collect the sociodemographic data and Knowledge on Attention Deficit Disorders scale (KADDS) was used to assess the effectiveness of Video awareness

programme regarding ADHD. Results: The findings of the study shown that Majority (62%) of the primary school teachers had bachelor's degree in elementary education. Where as in parents 'group majority (53%) of the parents had high school certificate. In primary school teachers, the mean score of pre-tests was  $16.78 \pm 3.78$ , and post-test mean score was  $31.5 \pm 2.74$ , the obtained 't' value ( $t=20.84$ ,  $df = 49$ ). In parents of primary school children group, the pre-test mean score was  $15.06 \pm 3.91$  and post-test mean score was  $28.11 \pm 4.35$ , the obtained 't' value ( $t=17.64$ ,  $df= 59$ ). The chi-square shown that there was a significant association between the primary school teachers pre-test level of knowledge with their age, education level, in parents of primary school children, there was a significant association between pre-test level of knowledge with their education level, family income. The study concluded that the level of knowledge was improved after administration of Video. Thus, Video is an effective strategy which can help in improving the level of knowledge among primary school teachers and parents of primary school children.<sup>4</sup>

### **Objectives of the study**

1. To assess the level of knowledge regarding attention deficit hyperactivity disorder among primary school teachers before and after structured teaching programme.
2. To find out the effectiveness of structured teaching programme on knowledge regarding attention deficit hyperactivity disorder among primary school teachers.
3. To determine the association between level of knowledge with selected demographic variables.

### **Hypothesis**

- H<sub>1</sub>- The mean post-test knowledge score of primary school teachers will be significantly higher than mean pre-test knowledge score.

- H<sub>2</sub>- There will be significant association between knowledge of primary school teachers with selected demographic variables.

## II. MATERIAL AND METHODS

**Research Approach:** Pre- experimental approach.

**Research Design:** One group pre-test – post-test design.

**Population:** Primary school teachers.

**Settings:** Selected schools, Sikar district, Rajasthan.

**Sampling Technique:** Purposive sampling technique.

**Sample size:** 100 Primary school teachers.

### Tools and Technique

I) Tool A: - Demographic Performa was used to collect sociodemographic data such as age, religion, educational qualification, Source of Information, Type of Family and Type of Occupation.

II) Tool B: - Structured Knowledge Questionnaire was used to assess the level of knowledge regarding attention deficit hyperactivity disorder in school children which consisted of 30 items divided in to seven areas (Introduction & definition, Incidence, Causes, Types, Symptoms, Diagnosis and testing, treatment and intervention)

III) Structured teaching programme (STP) was administered for a duration of 45 minutes for 100 samples. Lecture cum discussion was used as a teaching methodology along with a variety of AV aids including LCD/PowerPoint presentation, Charts, Flash Cards, OHP sheets and video assisted modules.

**Method of Data collection:** Data was collected for a period of one month [5<sup>th</sup> June 2019 to 5<sup>th</sup> July 2019].

After explaining the purpose and obtaining an informed consent, the pre-test was administered for the samples followed by a structured knowledge questionnaire. After a period of 07 days a post-test was carried out for the samples.

### Inclusion criteria:

Primary school teachers who were willing to participate in the study.

Primary school teachers who were available at the time of data collection.

### Exclusion criteria:

Primary school teachers who were sensitized to any research study on ADHD for three months.

Primary school teachers who were psychologically and physically unfit during the time of data collection.

## STATISTICAL ANALYSIS

Both Descriptive and Inferential statistics were used to analyse the data [using SPSS version 20 (SPSS Inc., Chicago, IL)]. Descriptive statistics such as Frequency distribution and percentage were used to describe the socio demographic data and Inferential statistics such as student t test was used to find out the effectiveness of STP by comparing the mean knowledge scores, paired *t*-test was used to determine the difference between mean knowledge scores before and after the intervention. Chi-square was performed find out the association between knowledge and selected demographic variables. The level  $P < 0.05$  was considered as the minimum accepted level of significance.

## III. RESULTS

Table 01: Frequency distribution and percentage of sample characteristics (N=100)

| Demographic variables |            | Frequency | Percentage |
|-----------------------|------------|-----------|------------|
| Age                   | <30 Yrs.   | 42        | 42%        |
|                       | 31-50 Yrs. | 42        | 42%        |
|                       | >50 Yrs.   | 16        | 16%        |
| Religion              | Hindu      | 68        | 68%        |
|                       | Christian  | 21        | 21%        |

|                           |                            |    |     |
|---------------------------|----------------------------|----|-----|
|                           | Muslim                     | 11 | 11% |
| Educational qualification | High school education      | 19 | 19% |
|                           | Higher secondary education | 71 | 71% |
|                           | Graduation and above       | 10 | 10% |
|                           |                            |    |     |
| Source of information     | Family and friends         | 39 | 39% |
|                           | Mass media                 | 17 | 17% |
|                           | Health personal            | 33 | 33% |
|                           | Others                     | 11 | 11% |
| Type of family            | Nuclear family             | 58 | 58% |
|                           | Joint family               | 42 | 42% |
|                           | Extended family            | 0  | 0   |
| Type of Occupation        | Govt                       | 45 | 45% |
|                           | Private                    | 55 | 55% |

Table 02: Frequency distribution and percentage of pre-test and post-test knowledge level regarding attention deficit hyperactivity disorders among primary school teachers

| Levels     | Pre-test  |         | Post-test |         |
|------------|-----------|---------|-----------|---------|
|            | Frequency | Percent | Frequency | Percent |
| Adequate   | 11        | 11%     | 91        | 91%     |
| Moderate   | 27        | 27%     | 03        | 03%     |
| Inadequate | 62        | 62%     | 06        | 06%     |
| Total      | 100       | 100%    | 100       | 100%    |

Figure 01: Bar Diagram showing frequency distribution and percentage of pre-test and post-test knowledge level regarding attention deficit hyperactivity disorders among primary school teachers.

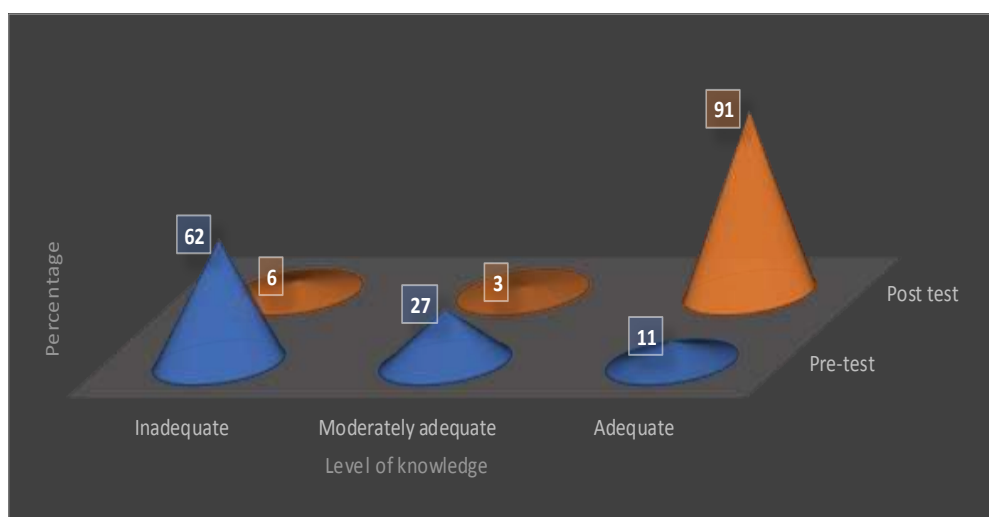


Table 03: Mean, Standard deviation and paired 't' value of knowledge level among primary school teachers before and after STP. (N=100)

| Stage     | Mean  | SD   | Mean Difference | df | Paired t | p    |
|-----------|-------|------|-----------------|----|----------|------|
| Pre-test  | 11.68 | 8.62 | 17.43           | 99 | 22.038*  | 0.00 |
| Post-test | 29.11 | 6.23 |                 |    |          |      |

\* Significant at 0.05 level

Table 03 shows that mean knowledge score before the structured teaching programme was  $11.68 \pm 8.62$  and after the intervention (structured teaching programme), the mean knowledge score increased to  $29.11 \pm 6.23$ . Increase in knowledge score after structured

teaching programme was statistically significant ( $p < 0.05$ ). Change in knowledge score at post-test was statistically significant. Hence research hypothesis ( $H_1$ ) was accepted.

**Table 05: Association between knowledge level among primary school teachers and selected demographic variables. (N=100)**

| Demographic variables            | Knowledge level |     |          |    |            |    | Chi-square test ( $\chi^2$ ) | Df   | P value     |
|----------------------------------|-----------------|-----|----------|----|------------|----|------------------------------|------|-------------|
|                                  | Adequate        |     | Moderate |    | Inadequate |    |                              |      |             |
|                                  | N               | %   | N        | %  | N          | %  |                              |      |             |
| <b>Age</b>                       |                 |     |          |    |            |    |                              |      |             |
| <30 Yrs.                         | 38              | 38% | 3        | 3% | 1          | 1% | 6.317                        | df=4 | P=9.49 (NS) |
| 31-50 Yrs.                       | 39              | 39% | 0        | 0  | 3          | 3% |                              |      |             |
| >50 Yrs.                         | 14              | 14% | 0        | 0  | 2          | 2% |                              |      |             |
| <b>Religion</b>                  |                 |     |          |    |            |    |                              |      |             |
| Hindu                            | 59              | 59% | 3        | 3% | 6          | 6% | 4.654                        | df=4 | p=9.49 (NS) |
| Christian                        | 21              | 21% | 0        | 0  | 0          | 0  |                              |      |             |
| Muslim                           | 11              | 11% | 0        | 0  | 0          | 0  |                              |      |             |
| <b>Educational Qualification</b> |                 |     |          |    |            |    |                              |      |             |
| High school education            | 18              | 18% | 0        | 0  | 1          | 1% | 2.129                        | df=4 | p=9.49(NS)  |
| Higher secondary education       | 63              | 63% | 3        | 3% | 5          | 5% |                              |      |             |
| Graduation and above             | 10              | 10% | 0        | 0  | 0          | 0  |                              |      |             |
| <b>Source of Information</b>     |                 |     |          |    |            |    |                              |      |             |
| Family and friends               | 39              | 39% | 0        | 0  | 0          | 0  | 27.894                       | df=6 | p=12.59 (S) |
| Mass media                       | 7               | 7%  | 0        | 0  | 0          | 0  |                              |      |             |
| Health personal                  | 17              | 17% | 0        | 0  | 0          | 0  |                              |      |             |
| Others                           | 28              | 28% | 3        | 3% | 2          | 2% |                              |      |             |
| <b>Type of family</b>            |                 |     |          |    |            |    |                              |      |             |
| Nuclear family                   | 49              | 49% | 03       | 3% | 06         | 6% | 7.162                        | df=2 | p=5.99(S)   |
| Joint family                     | 42              | 42% | 0        | 0  | 0          | 0  |                              |      |             |
| <b>Type of Occupation</b>        |                 |     |          |    |            |    |                              |      |             |
| Govt                             | 36              | 36% | 3        | 3% | 6          | 6% | 12.088                       | df=2 | p=5.99 (S)  |
| Private                          | 55              | 55% | 0        | 0  | 0          | 0  |                              |      |             |

\*Significant at 0.05 level.

The above table depicts that the calculated  $\chi^2$  value for source of Information, Type of family and Type of Occupation is significantly higher than the table value ( $p < 0.05$  level). So, there is association between source of Information, Type of family and Type of Occupation with knowledge level of attention deficit hyperactivity disorder. Hence the research hypothesis  $H_2$  was accepted. The score changes also reflect the effectiveness of the intervention.

#### IV. DISCUSSION

The findings in the present study revealed that the mean post-test knowledge score  $29.11 \pm 6.23$  was significantly higher than the mean pre-test knowledge score  $11.68 \pm 8.62$  ( $p < 0.05$ ). Paired t value computed at  $22.038^*$  was statistically significant at  $p < 0.05$ . The paired t value [ $22.038^*$  df=99] computed by comparison of the mean pre-test and post-test knowledge scores was statistically significant at  $P < 0.05$  level. Therefore, it is interpreted that structured teaching programme was significant in improving the knowledge regarding ADHD among primary school teachers.

This result is supported by various studies. A study was conducted to assess the knowledge regarding ADHD among primary school teachers in selected schools, Kottayam. Convenience sampling technique was used to select 30 samples from the three primary schools of Kottayam district. The result showed that among 30 subjects 6(20%) had poor level of knowledge, 24 (80%) had average level of knowledge and none of them had good level of knowledge regarding attention deficit hyperactivity disorder. The study findings revealed that there is significant association between level of knowledge of primary school teachers and selected demographic variables such as gender, type of job, and any special training in child psychology. Result indicated that teachers' greatest area of knowledge dealt with general information of ADHD. Teachers had lower scores related to identifying the symptoms and diagnosis and knowledge of treatments for the disorder. In conclusion, teachers in Kottayam district needed training on identifying symptoms and diagnosis and treatment of ADHD. The study recommended that In-service training courses to teachers about attention deficit hyperactivity disorder enhance teachers,

parents and community awareness about attention deficit hyperactivity disorder through mass media<sup>5</sup>.

## V. CONCLUSION

The study was conducted to assess the effectiveness structured teaching programme on regarding ADHD among primary school teachers. The results of the study undoubtedly confirm that the post-test knowledge score is significantly higher than the pre-test knowledge score. Therefore, it is concluded that STP is significantly effective in enhancing the knowledge level regarding ADHD among primary school teachers.

### Limitations

- The study was confined to specific geographical area, which imposed limits on generalization
- The limited sample size caused limit on generalization of the study findings
- The findings could be generalized only to that population, which fulfilled the criteria in the study
- No follow-up was made to measure the retention of knowledge.

### Recommendations

- A descriptive study can be conducted to identify the level of knowledge among primary school teachers.
- The study can be repeated on a larger sample to generalize the findings
- A comparative study can be conducted to assess the knowledge regarding ADHD among Govt and Private school teachers.

## NURSING IMPLICATIONS:

### Nursing Implication:

The finding of the study has implications in the field of nursing education, nursing practice, nursing administration, and nursing research.

### Nursing Education:

- Curriculum should prepare the nursing students to attend up to date knowledge regarding management technique.

- Nurses play a major role in providing health teaching on attention deficit hyperactivity disorder for primary school teachers in community setting.

### Nursing Administration:

- The administrators should teach the staff nurses and motivate them to provide health education to primary school teachers regarding attention deficit hyperactivity disorder.
- Awareness programs must be planned and conducted in schools.

### Nursing Practice:

- In-service education can be conducted to improve knowledge of health professionals regarding attention deficit hyperactivity disorder.
- As a vital part of the health team, nurses can give greater contributions in improving the knowledge regarding attention deficit hyperactivity disorder.
- Nurses can use self-administered questionnaires which can be used to assess the knowledge regarding attention deficit hyperactivity disorder among teachers and parents, and can provide structured teaching program to improve the knowledge

### Declaration by Authors

**Ethical Approval:** Approved

**Acknowledgement:** Sincere thanks to my father Mr. Mohan ram Lora and my husband Mr. Ram Niwas for their uninterrupted support.

**Source of Funding:** None

**Conflict of Interest:** The authors declare no conflict of interest.

## REFERENCES

1. <https://www.psychiatry.org/patients-families/adhd/what-is-adhd>
2. <https://www.cdc.gov/ncbddd/adhd/facts.html>
3. <https://www.mayoclinic.org/diseases-conditions/adhd/symptoms-causes/syc-20350889>
4. Chimata Venkateswarlu, B. Nirmala Jyothi, A. Suneetha. Effectiveness of A Video

- Awareness Programme regarding Attention Deficit Hyperactivity Disorder among Primary School Teachers and Parents of selected schools in Guntur (Dt), Andhra Pradesh. *International Journal of Advances in Nursing Management*. 2022; 10(2):121-6.
5. Liji R Kurian, Anaswara Shaji, Anitta Maria Alex, Sr. Rini V B, Sheeba Mariam Chacko, Sunitha P George. A Descriptive Study to Assess the Knowledge on Attention Deficit Hyperactivity Disorder (ADHD) among primary school teachers in selected schools,

Kottayam. *Research Journal of Science and Technology*. 2022; 14(1):30-6.

How to cite this article: Suman Lora. Effectiveness of structured teaching programme on knowledge regarding attention deficit hyperactivity disorder in school children among primary school teachers. *International Journal of Science & Healthcare Research*. 2023; 8(4): 18-24. DOI: [10.52403/ijshr.20230403](https://doi.org/10.52403/ijshr.20230403)

\*\*\*\*\*