Effectiveness of Structured Teaching Program on Knowledge and Attitude Regarding Selected Behavioral Problems in Children among Mothers in Shimla City: A Pilot Study

**Abstract:** Background: Many children suffer from Attention Deficit Hyperactivity Disorder (ADHD) & Conduct Disorder (CD). Parents especially mothers should have a more knowledge of behavioral problems of childhood because the children will spend their more time in homes. Present study was done to evaluate the effectiveness of Structured Teaching Program on knowledge and attitude regarding selected behavioral problems in children aged 6-12 years among mothers. Material & Methods: It was a pre-experimental community based study conducted in the urban area of Chalonthi, Sanjauli of Shimla District, and Himachal Pradesh, India. Study sample was 20 mothers having children between the age group of 6-12 years selected by non-probability convenience sampling technique. From 1st to 2nd day pre-test was taken, and on the same day Structured Teaching Program was given. Then from 8th to 9th day the post-test was taken by using the same tool to the same participants. The data collected and analyzed with the help of Epi info V7 software. Results: In the present study, in pre-test 12 (60%) mothers had poor knowledge, 6 (30%) had average knowledge and 2 (10%) had good knowledge whereas in post-test 2 (10%) mother had poor knowledge, 11 (55%) average knowledge and 7 (35%) of mothers had good knowledge regarding combined ADHD & CD. Similarly, in pre-test 66 (33%) mothers had unfavorable attitude, 5 (25%) had moderately favorable and 4 (20%) had favorable attitude whereas in post-test 2 (10%) had unfavorable, 10 (50%) had moderately favorable whereas 8 (40%) of mothers had favorable attitude regarding selected behavioral problems. Conclusion: This pilot study clearly showed that the Structured Teaching Program regarding selected behavioral problems in children among mothers had significant improvement in their level of knowledge and attitude in the post-test.

**Keywords:** Attention Deficit Hyperactivity Disorder, Conduct disorder, Structured Teaching Programme.

**INTRODUCTION**

Infancy and childhood are of paramount importance in determining and patterning the future behavior and character of the children. Behavioral disorders are caused by multiple factors. No single event is responsible for this condition. The important contributing factors are: faulty parental attitude, inadequate family environment, mentally and physically sick or handicapped conditions, influence of social relationship, influence of mass media and influence of social change (Ogunde, M. O. 2018; Scott, J. G. *et al.*, 2016; Betterhealth. 2020; & Psychguides 2020).

It is a general assumption that children do not suffer from psychiatric disorders. However, it has been observed that childhood psychiatric disorders are more common than expected in the general population. Many children suffer from Attention Deficit Hyperactivity Disorder (ADHD) & Conduct disorder and both of these negatively affects the individuals social, academic or occupational functioning (Nigg, J. T. 2013; & Searight, H. R. *et al.*, 2001).

According to the WHO statistics, prevalence of disabling mental illnesses among children and adolescents ranges between 20-30% in urban areas and 13-18% in rural areas. Out of these children 3-4% is suffering from serious mental illnesses and requires treatment. Common behavioral problems of childhood are attention deficit hyperactivity disorder, conduct disorder, temper tantrum, breath holding spell, thumb sucking, nail biting, enuresis, pica, speech problems, sleep disorders, school phobia, shyness etc.(Centers for Disease Control and Prevention (CDC). 2020; & Sarwat, A. *et al.*, 2009).
Behavioral problems of school going children should be observed by parents and teachers. Parents should have a more knowledge of behavioral problems of childhood because the children will spend their more time in homes. So parents should be able to find out the abnormal behavior of child and they can provide some related mental health services to the child with the guidance from psychologists. Early diagnosis and early screening helps the prevention of progress of disease for the treatment of the child and for effective mental health service (National Institute of Mental Health. 2020).

A number of studies on knowledge and attitude regarding behavioral problems conducted in different areas of India revealed widespread ignorance and misconception about behavioral problems among parents but no such study was done in this northern hilly state having different cultural pattern. So, we planned a pilot study to evaluate the effectiveness of structured teaching program on knowledge and attitude regarding selected behavioral problems in children aged 6-12 years among mothers.

**Aims & Objectives**
1. To assess the pre-test knowledge regarding selected behavioral problems in children among mothers.
2. To assess the pre-test attitude regarding selected behavioral problems in children among mothers.
3. To assess the effectiveness of Structured Teaching Program on selected behavioral problems in children among mothers.

**Study design:** It was a pre-experimental community based study

**Study area:** The study was conducted in the urban area of Chalonthi, Sanjauli of Shimla District, Himachal Pradesh, India.

**Study Population:** In the present study population were mothers of children (6-12 years) residing in selected urban areas of Shimla.

**Sample and Sample Size:**
In this pilot study sample was 20 mothers having children between the age group of 6-12 years.

**Sampling Technique:** Sampling technique adopted for this study was non-probability convenience sampling technique

**Inclusion criteria:** The study includes mothers who:
1. Is having at least one child in the age group of 6-12 years.
2. Are able to read, write and understand Hindi or English.
3. Are willing to participate in the study.
4. Are willing to give informed consent.

**Exclusion Criteria:**
1. Mothers who are not available at the time of data collection.
2. Mothers who are not willing to participate.

**Study tool:** The tool consists of 3 sections:

**(Section A: Demographic profile):** which includes age, type of family, family income/month, single mother, education of mother, occupation of mother, religion, number of children, family history of behavioral problems, child with behavioral problems in family and source of information.

**(Section B: Structured knowledge questionnaire):** To assess the knowledge regarding selected behavioral problems contains 30 items (multiple choice questions) which covers 2 domains: ADHD (Attention Deficit Hyperactivity Disorder) and Conduct Disorder. Each domain consists of 15 items. Each question has 4 options in which one option is correct. Each correct answer carries one mark and wrong answer carries a zero mark, the possible maximum score is 30 and the minimum score is zero.

**(Section C: Likert Rating Scale):** To assess the attitude towards the selected behavioral problems:
To assess the attitude regarding selected behavioral problems in children among mothers. It consists of 10 items. Each statement scores in following manner:

Each item has 5 options such as strongly agree, agree, uncertain, disagree, strongly disagree. The scores for the positive item was 5 points for those who strongly agree, 4 points for those who agree, 3 points for uncertain, 2 points for those who disagree and 1 point for those who strongly disagree and the total score is 50.
Scoring interpretation

<table>
<thead>
<tr>
<th>Level of attitude</th>
<th>Attitude score</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unfavorable attitude</td>
<td>0-20</td>
<td>&lt;50%</td>
</tr>
<tr>
<td>Moderately favorable attitude</td>
<td>21 – 35</td>
<td>51-75%</td>
</tr>
<tr>
<td>Favorable attitude</td>
<td>36 – 50</td>
<td>&gt;75%</td>
</tr>
</tbody>
</table>

Ethical Consideration:
Permission was taken from the concerned authorities of Municipal Corporation (Councilor) of selected urban areas of Shimla District. Written informed consent was taken from the participants of study subjects regarding their willingness to participate. The purpose for carrying out research project was explained to the participants and assurance for confidentiality was given.

Data Collection:
The data was collected w.e.f. 27.10.2019 to 28.10.2019. The investigator distributed the schedule to collect information from the respondents and personally contacted each respondent. The sample of 20 was divided into 2 groups. From 1st to 2nd day, pre-test was taken, and on the same day Structured Teaching Program was given with the help of power point presentation approximately for 45 minutes to 1 hour separately to each group. During that the doubts were clarified by investigator. Then from 8th to 9th day the post-test was taken by using the same tool to the same participants. The data collected and analyzed as per the plan of analysis. After data collection, the investigator thanked the subjects for their participation in the study.

Data Analysis:
Data was entered in MS excel and analyzed with the help of Epi info v7 software. Descriptive statistics was used to analyze the frequency, percentage, mean and standard deviation of the various variables. Inferential statistics (Chi-square test Paired ‘t’ test, Correlation coefficient) was used to determine the comparison, relationship and association.

RESULTS

Table 1: Frequency and percentage distribution of demographic variables of mothers

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Age in years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) &lt; 30 years</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>b) 31 -40 years</td>
<td>9</td>
<td>45</td>
</tr>
<tr>
<td>c) 41 -50 years</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>d) &gt; 50 years</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>2. Type of family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Nuclear family</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>b) Joint family</td>
<td>8</td>
<td>40</td>
</tr>
<tr>
<td>3. Family income/month in Rs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) &lt; 5000</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>b) 5001 -10,000</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>c) 10,001-15,000</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>d) &gt; 15,001</td>
<td>12</td>
<td>60</td>
</tr>
<tr>
<td>4. Single mother</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Yes (divorce/widows)</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>b) No</td>
<td>19</td>
<td>95</td>
</tr>
<tr>
<td>5. Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Hindu</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>b) Muslim/Sikh/others</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6. Education of mother</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Illiterate</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>b) Primary</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>c) Middle</td>
<td>1</td>
<td>5</td>
</tr>
</tbody>
</table>
7. Occupation of mother
a) Govt. job 3 15
b) Private job 2 10
c) Businesswoman 1 5
d) House maker 14 70

8. Education of father
a) Illiterate 1 5
b) Primary 2 10
c) Middle 3 15
d) Matriculate 5 25
e) Higher secondary 4 20
f) Graduate 3 15
g) Post-graduate 2 10

9. Occupation of father
a) Govt. job 7 35
b) Private job 6 30
c) Businessman 4 20
d) Farmer 3 15

10. Number of children
a) one 5 25
b) Two 12 60
c) >Three 3 15

11. Birth order of child
a) First 9 45
b) Second 10 50
c) Third 1 5

12. Family history of behavioral problems
a) Yes 1 5
b) No 19 95

13. Child with behavioral problems in family
a) Yes 1 5
b) No 19 95

14. Source of information
a) Family members 4 20
b) Friends/colleagues 6 30
c) News papers 2 10
d) mass media 2 10
e) Books/internet 6 30
Table 1 shows that majority 9 (45%) of mothers were in the age group of 30-40 years, 8 (40%) in the age group of <30 years, 4 (20%) in the age group of 41-50 and remaining 1 (5%) were in the age group of > 50years. The type of family was also in the range that 12 (60%) mothers came from nuclear families whereas 8 (40%) came from joint families. With respect to education of mother, 1 (5%) respondents were illiterate, 2 (10%) in the primary, 1 (5%) in the middle, 6 (30%) in the matriculate, 3 (15%) in the higher secondary, 4 (20%) in the graduate and 3 (15%) were in the category of post-graduates. Regarding occupation of mother 3 (15%) were in the category of Government job, 2 (10%) in private job, 1 (5%) were businesswomen and remaining 14 (70%) were the housewives. With respect to religion 20 (100%) respondents were from Hindu religion. Regarding family history of behavioral problems, 1 (5%) respondents had family history of behavioral problems. In child with behavioral problems in family, 1 (5%) had children with behavioral problems in the family. With respect to source of information, 4 (20%) respondents had information from family members, 6 (30%) from friends/colleagues, 2 (10%) from news papers, 2 (10%) from mass media and 6 (30%) from books/internet.

Table 2: Frequency and percentage distribution of pre-test and post-test level of knowledge regarding selected behavioral problems (combined ADHD & CD) in children among mothers

<table>
<thead>
<tr>
<th>Level of knowledge</th>
<th>Knowledge Score</th>
<th>Pre-test (F)</th>
<th>%</th>
<th>Post-test (F)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>0-10 (&lt;50%)</td>
<td>12</td>
<td>60</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Average</td>
<td>11-20 (50-75%)</td>
<td>6</td>
<td>30</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>Good</td>
<td>21-30 (&gt;75%)</td>
<td>2</td>
<td>10</td>
<td>7</td>
<td>35</td>
</tr>
</tbody>
</table>

This table 2 represented that in pre-test the maximum frequency 12 (60%) were obtained in the level of poor score which indicated that mothers had poor knowledge and in post-test the maximum frequency 11 (55%) were obtained in the level of average score which indicated that mothers had average knowledge regarding selected behavioral problems (combined ADHD & CD) after implementation of Structured Teaching Program.

Table 3: Frequency and percentage distribution of pre-test and post-test level of attitude regarding selected behavioral problems in children among mothers

<table>
<thead>
<tr>
<th>Level of attitude</th>
<th>Attitude score</th>
<th>Pre-test (F)</th>
<th>%</th>
<th>Post-test (F)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderately Favorable</td>
<td>21 – 35 (50-75%)</td>
<td>5</td>
<td>25</td>
<td>10</td>
<td>50</td>
</tr>
<tr>
<td>Favorable</td>
<td>36 – 50 (&gt;50%)</td>
<td>4</td>
<td>20</td>
<td>8</td>
<td>40</td>
</tr>
</tbody>
</table>

This table 3 revealed that in pre-test the maximum frequency 11 (55%) were obtained in the level of unfavorable score which indicated that mothers had unfavorable attitude and in post-test the maximum frequency 10 (50%) were obtained in the level of moderately favorable score which indicated that mothers had moderately favorable attitude towards selected behavioral problems after implementation of Structured Teaching Program.

Table 4: Comparison of pre-test and post-test knowledge scores regarding selected behavioral problems (combined ADHD & CD) in children among mothers

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Mean (N=20)</th>
<th>S.D.</th>
<th>Mean Difference</th>
<th>Paired ‘t’ Value</th>
<th>‘p’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>7.40</td>
<td>3.43</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-test</td>
<td>15.45</td>
<td>2.96</td>
<td>8.05</td>
<td>7.94</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

The table 4 showed that in the pre-test, the mean score of knowledge was 7.40 ± 3.43 whereas in the post-test the mean score of knowledge was 15.45 ± 2.96. The mean difference was 8.05. The calculated paired ‘t’ value was 7.94 which was found to be statistically highly significant at ‘p’ < 0.000 level. This clearly shows that the Structured Teaching Program on knowledge regarding selected behavioral problems (combined ADHD & CD) in children among mothers had significant improvement in their level of knowledge in the post test.

Table 5: Comparison of pre-test and post-test attitude scores regarding selected behavioral problems in children among mothers

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Mean (N=20)</th>
<th>S.D.</th>
<th>Mean Difference</th>
<th>Paired ‘t’ Value</th>
<th>‘p’ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>24.72</td>
<td>2.202</td>
<td>7.59</td>
<td>10.29</td>
<td>0.000***</td>
</tr>
<tr>
<td>Post-test</td>
<td>32.31</td>
<td>2.456</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The table 5 showed that in the pre-test, the mean score of attitude was 24.72 ± 2.20 whereas in the post-test the mean score of attitude was 32.31 ± 2.456. The mean difference was 7.59. The calculated paired ‘t’ value was 10.29 which was found to be statistically highly significant at ‘p’ < 0.000 level. This clearly shows that the Structured Teaching Program on attitude regarding selected behavioral problems (combined ADHD & CD) in children among mothers had significant improvement in their level of attitude in the post test.
This table 5 showed that in the pre-test, the mean score of attitude was 24.72 ± 2.202 whereas in the post test the mean score of attitude was 32.31 ± 2.456. The mean difference score was 7.59. The calculated paired ‘t’ value was 10.29 which was found to be statistically highly significant at ‘p’ < 0.000 level. This clearly shows that the Structured Teaching Program on attitude regarding selected behavioral problems in children among mothers had significant improvement in their level of attitude in the post-test.

**DISCUSSION**

In the present study, in pre-test 12 (60%) mothers had poor knowledge, 6 (30%) had average knowledge and 2 (10%) had good knowledge whereas in post-test 2 (10%) mother had poor knowledge, 11 (55%) average knowledge and 7 (35%) of mothers had good knowledge regarding (combined) Attention Deficit Hyperactivity Disorder and Conduct Disorder. So, it can be concluded that the score of pre-test knowledge has increased in the post-test. Similarly, in pre-test 66 (33%) mothers had unfavorable attitude, 5 (25%) had moderately favorable and 4 (20%) had favorable attitude whereas in post-test 2 (10%) had unfavorable, 10 (50%) had moderately favorable whereas 8 (40%) of mothers had favorable attitude regarding selected behavioral problems. Similar findings were observed in the studies done by Manivannan D. et al., (2017) Godara, J., & Chouhan, S (2018) and Kogila P. et al., (2016).

In the current study, in the pre-test, the mean score of knowledge was 7.40 ± 3.43 whereas in the post-test the mean score of knowledge was 15.45 ± 2.96. In the pre-test, the mean score of attitude was 24.72 ± 2.202 whereas in the post test the mean score of attitude was 32.31 ± 2.456. This clearly shows that the Structured Teaching Programme regarding selected behavioral problems in children among mothers had significant improvement in their level of knowledge and attitude in the post-test. Similar study supporting the effectiveness of Structured Teaching Program was also done by Manpreet S. et al., (2015) Negi R. et al., (2019) Maheshwari, S. U. (2016) Vasanthakohila, K.R., & Hemavathy, V. (2014), Sharma, P., & Kaur, J. (2014) and Dumbray S.S. et al., (2014).

**CONCLUSION**

The findings of the study revealed that there was significant gain in knowledge score and significant positive attitude towards behavioral problems of mothers after Structured Teaching Programme. So the study concluded that Structured Teaching Programme had a great potential for accelerating the awareness regarding behavioral problems. The present study indicates that mothers must gain good knowledge to have positive attitude towards behavioral problems, to have good parent child relationship and to prevent & reduce the behavioral problems among children. Educational program needs to be organized to improve the knowledge of mothers. Teaching Program was an effective intervention to improve the level of knowledge and attitude regarding selected behavioral problems of children among mothers.

**Recommendations**

A similar study can be conducted with large number of sample of mothers selected from different communities for wider generalization of findings. A comparative study can be conducted between rural and urban areas or mothers having children with behavioral problems without behavioral problems or working and non-working mothers.

**REFERENCES**


