An RCT on Effectiveness of play therapy on anxiety among hospitalized children in selected hospital, Greater Noida

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ABSTRACT: During a serious illness, even older children have a great need for their parents and can tolerate their absence only for short periods. Anxiety is the most commonly reported of these negative responses among children and high levels of anxiety can be harmful to child’s physiological and psychological health. To overcome the anxiety, play is an integral part of the hospitalized child’s plan of care. Play offers, the child an opportunity or creative expression, diversion and effective coping. The study aim was to assess and compare the level of anxiety after administration of play therapy among hospitalized children in experimental and control group and to determine the association of anxiety among hospitalized children with selected variables. In this study a Quantitative approach with True Experimental control post test design was used. Simple Random sampling technique was used to select the sample size of 60 children. Children were randomly allocated in experimental and control group. Data was collected from parents or care taker of children for control and experimental groups by using Hamilton Scale of anxiety. The study concluded that the mean anxiety score of children receiving play therapy during hospitalization was significantly less as compared to the mean anxiety score of control group. Therefore, play therapy while hospitalization was effective in reducing anxiety.

KEY WORDS: Anxiety, Play therapy
INTRODUCTION

World Health Organization (WHO) defines Health, a state of complete physical, mental and social wellbeing and not merely the absence of diseases or infirmity. Healthy children are the wealth of nation. The National Policy for children says that “A nation’s children are its asset; their nature and solicitude are our responsibility”. Health is the precious possession of all the human beings as it is an asset for an individual and community as well. Hospitalization is stressful for children of all ages. When a child is admitted in the hospital, anxiety both for the disease and for the imminent surgical procedure may be the first component of the crisis the child is faced with. Thus, surgical anxiety is an answer to the fear of hospitalization, disease, anaesthesia and surgery, while paediatric anxiety is associated with a high frequency of post-operative stress of fear, separation, eating and sleep disorders. Anxiety is the most commonly reported of these negative responses, and high levels of anxiety can be harmful to children’s physiological and psychological health. Excessive anxiety also implies children’s efficacy in coping with medical treatment and increases their uncooperative behaviour and negative emotions towards healthcare professionals. The pharmacological and non-pharmacological therapy is used to reduce the anxiety of the child.

Play is an integral part of the hospitalized child’s plan of care. Play offers, the child an opportunity or creative expression, diversion and effective coping. In the hospital a supervised play program provides warm, friendly atmosphere that will help the child continue to grow and develop. In larger hospitals a child life specialist may coordinate the play program. A place to play, suitable materials and other children to play with are essential. Because play is a child’s way of learning; toys, materials, and equipment are learning tools. Play promotes healing and helps the child to cope with stressful experiences. Children Won fear treatments are helped to release their feelings in their use of falls and other toys.

NEED OF THE STUDY

Play - when one thinks of play, one immediately thinks of fun and children. But what one does not realize is the scope of influence it has on the growth and development of a child stored within its realms. Play happens to be the business for children. Its purposes are numerous intellectual and motor developments, creativity and development of higher functions, play has been known to divert
child’s mind. E.g. A crying child will stop crying when a toy is given to play. The value of play to a sick child in the hospital has long been recognized and if the hospital is to meet the physical, mental and emotional need of the child. It must also provide suitable play activity to the child to reduce the fear and anxiety of hospitalized children.\textsuperscript{13}

**METHODOLOGY**

The Quantitative: Experimental Research Approach was used in the study and “\textit{Post-test control design}” was used as a study design. This study included the children between the age group of 6-12 years admitted in paediatric ward of Hospital. *Simple Random sampling technique* was used to select the sample size of 60 children. Children were randomly allocated in experimental and control group. Hamilton anxiety scale was selected to assess the anxiety level of children.

<table>
<thead>
<tr>
<th>Group</th>
<th>Intervention</th>
<th>Post test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>Play therapy was given</td>
<td>Assessment of anxiety by using HAMILTON scale.</td>
</tr>
<tr>
<td>Control group</td>
<td>Routine care was given</td>
<td>Assessment of anxiety by using HAMILTON scale.</td>
</tr>
</tbody>
</table>

**RESULT FINDINGS:**

**SECTION I:**

Description of selective variables of hospitalized children

**TABLE 1**

Frequency, percentage distribution of hospitalized children in terms of clinical variables in experimental and control group

N=60
<table>
<thead>
<tr>
<th>S.no</th>
<th>Clinical variables</th>
<th>Experimental group (N=30)</th>
<th>Control group (N=30)</th>
<th>Chi square</th>
<th>Df</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>f (%)</td>
<td>f (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Diagnosis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>Respiratory</td>
<td>08(26)</td>
<td>09(30)</td>
<td>6.52</td>
<td>3</td>
<td>0.08 NS</td>
</tr>
<tr>
<td>1.2</td>
<td>GI</td>
<td>13(43)</td>
<td>08(26)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td>Renal</td>
<td>02(6)</td>
<td>09(30)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.4</td>
<td>Others</td>
<td>07(23)</td>
<td>04(13)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Nature of illness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Acute</td>
<td>25(83)</td>
<td>26(86)</td>
<td>0.13</td>
<td>1</td>
<td>0.71 NS</td>
</tr>
<tr>
<td>2.2</td>
<td>Chronic</td>
<td>05(16)</td>
<td>04(13)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Previous history of hospitalization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>No</td>
<td>15(50)</td>
<td>06(20)</td>
<td>5.13</td>
<td>1</td>
<td>0.01*</td>
</tr>
<tr>
<td>3.2</td>
<td>Yes</td>
<td>15(50)</td>
<td>24(80)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Duration of stay in hospital</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>Day of admission (1st day)</td>
<td>07(23)</td>
<td>01(3)</td>
<td>6.53</td>
<td>3</td>
<td>0.08 NS</td>
</tr>
<tr>
<td>4.2</td>
<td>2nd day</td>
<td>13(43)</td>
<td>14(46)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3</td>
<td>3rd day</td>
<td>07(23)</td>
<td>13(43)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4</td>
<td>More than 3 days</td>
<td>03(10)</td>
<td>02(6)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Types of treatment child is getting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Invasive</td>
<td>01(3)</td>
<td>01(3)</td>
<td>13.5</td>
<td>2</td>
<td>0.00*</td>
</tr>
<tr>
<td>5.2</td>
<td>Non-invasive</td>
<td>11(36)</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.3</td>
<td>Both</td>
<td>18(60)</td>
<td>29(96)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant(p≤0.05)  NS Not Significant(p>0.05)

Table 1 data reveals that Majority of the hospitalized children were having acute nature of illness in experimental group (83%) and in control group (86%) Majority of
the hospitalized children in experimental and control group were getting both (invasive and non-invasive) type of treatment (60%) and (96%) respectively. The computed chi square value for the demographical characteristics of hospitalized children in the experimental and control group were found to non-significant at 0.05 level. Hence it can be inferred from the findings that hospitalized children in both the groups were homogenous in terms of clinical variables except previous history of hospitalization (p=0.01) and type of treatment child is getting (p=0.00).

SECTION II

Evaluation of effectiveness of play interventions on anxiety among hospitalized children in experimental and control group.

TABLE 2

Frequency and percentage distribution of level of anxiety score of hospitalized children in post-test in experimental and control group.

<table>
<thead>
<tr>
<th>Level of anxiety</th>
<th>Range of score</th>
<th>Experimental group Post-test f (%)</th>
<th>Control group Post-test f (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild anxiety</td>
<td>(0-17)</td>
<td>25(83)</td>
<td>-</td>
</tr>
<tr>
<td>Mild to Moderate anxiety</td>
<td>(18-24)</td>
<td>05(16)</td>
<td>19(63)</td>
</tr>
<tr>
<td>Moderate to Severe anxiety</td>
<td>(25-30)</td>
<td>-</td>
<td>11(36)</td>
</tr>
</tbody>
</table>

Maximum score=56 Minimum score=0

Table 2 shows that in frequency and percentage distribution of children in terms of level of anxiety score in experimental and control group. In experimental group majority of the children had mild anxiety (83%). In control group all of the children
had moderate anxiety (63%) and severe anxiety (56%).

### TABLE 3

Range, mean, median, standard deviation of anxiety score after play intervention among hospitalized children in experimental and control group.

<table>
<thead>
<tr>
<th>Group</th>
<th>Range of score</th>
<th>Mean±SD</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>7-19</td>
<td>14.2±2.98</td>
<td>14</td>
</tr>
<tr>
<td>(n=30)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comparison group</td>
<td>21-28</td>
<td>23.9±1.75</td>
<td>24</td>
</tr>
<tr>
<td>(n=30)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows that anxiety score in an experimental score ranges between 7-19 and in control group 21-28 respectively. The mean anxiety score of children in experimental group was 14.2 was lower than mean anxiety score in control group (23.9). the data further indicates that the median for experimental group was 14 and in control group was 24.
Table 4 shows that mean anxiety score of hospitalized children in experimental group was (14.2) and mean anxiety score in control group was (23.9). The result further shows that the computed ‘t’ value of (15.36) was found to be statistically significant at 0.00 level of significance. Thus, suggesting that the mean difference between anxiety score in experimental and control group was a true difference and not by chance. Hence, research hypothesis $H_1$ was accepted and null hypotheses $H_0$ was rejected. This indicates that play therapy was effective in reducing anxiety among hospitalized children.
SECTION III

Association of the post-test anxiety score of hospitalized children with their selected variables in experimental and control group.

It shows that ANNOVA and “t” test value for association of experimental mean with selected variables. The findings revealed that in experimental group computed f/t were not found to be associated at 0.05 level of significance.

Hence the research hypothesis $H_2$ was accepted and null hypothesis $H_{02}$ was rejected.

DISCUSSION:

In the present study nearly half (43%) of the hospitalized children in experimental group and in control group most (30%) were in age group of 9-11 years. Half of the hospitalized children in experimental group were males 50% whereas in control group of less than half of the hospitalized children were males (26%) and half were (50%). The group all of the children had moderate anxiety (63%) and severe anxiety (56%). It shows that mean anxiety score of hospitalized children in experimental group was (14.2) and mean anxiety score in control group was (23.9). The result further shows that the computed ‘t’ value of (15.36) was found to be statistically significant at 0.00 level of significance. The findings of the study is consistent with the findings of Pooja who conducted a study to assess the effectiveness of play interventions on anxiety among hospitalized children. Post-test mean score of anxiety in experimental and control group, the obtained ‘t’ and ‘p’ value were 12.23 and 0.001 respectively, hence found to be significant ($p<0.005$) at 0.05 level. The present study shows that ANNOVA and “t” test value for association of experimental mean with selected variables. The findings revealed that in experimental group computed f/t value with all the variables such as age($f=2/27$, $p=0.95$), gender ($t=28$, $p=0.27$), religion ($f= 3/26$, $p=0.29$), education of father ($f=3/36$, $p=0.37$), education of mother ($f=3/26$, $p=0.29$) and all others were not found to be associated at 0.05 level of significance. Hence the research hypothesis $H_2$ was accepted and null hypothesis $H_{02}$.

In conclusion study findings revealed that use of play therapy was effective in reducing anxiety among hospitalized children. It is highly recommended as an effective technique. It should be used in paediatric ward to reduce anxiety.

CONCLUSION
On the basis of the findings of the present study, the following conclusions can be drawn:

- The mean anxiety score of children receiving play therapy during hospitalization was significantly less as compared to the mean anxiety score of control group.
- Therefore, play therapy while hospitalization was effective in reducing anxiety. The study concluded that play therapy was an effective technique in reducing anxiety during hospitalization.

IMPLICATIONS

The findings of the present study have implications for child health nursing practice, nursing administration, nursing education and nursing research.

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