“A STUDY TO ASSESS EFFECTIVENESS OF PUZZLE GAME ON ANXIETY AMONG SCHOOL GOING CHILDREN ADMITTED IN SELECTED HOSPITAL.”


1. Clinical Instructor, 2. Assistant Professor, 3. Professor and Principal, 4. Professor 3rd year Bsc. Nursing, Student


INTRODUCTION

Hospitalization can be frightening and stress full experience for many child, if they are not seriously ill however it doesn’t have to be negative experience because there are many strategies which staff can use to reduce stress and anxiety level of child when compared to adult, if they are admitted in hospital, separation from parents unfamiliar people, environment, procedure, and treatment which cause anxiety in children and also there are many factors like play is one of the major role in influencing anxiety.1

Play is an integral part of hospitalised children’s it is a pleasurable and enjoyable aspect of child life and also essential to promote growth and development, explore their world and increase learning capacity. There are many games which reduce anxiety.2

Puzzlegame:-It can be used to reduce the anxiety of the child and the child will be able to divert from pain or anxiety and get release from the fun of playing game. Along with the growth and development in preschoolers or schoolers are more active, Creative and imaginative. Puzzlegame can be used as ahead in game. Child can reduce their anxiety by arranging puzzle.4

NEED FOR THE STUDY

Puzzle game is a type of play therapy for children who undergoing hospitalization. When treated in hospital, children will experienced various unpleasant feeling such as anger, fear and pain. By playing the game the will be free from tension and stress. Along with the stress growth and development can be increase.5
It can be used to reduce the anxiety of the child and the child will be able to divert from pain or anxiety and get release from the fun of playing game. Along with the growth and development in preschooler or schoolers are more active, creative and imaginative. Puzzle game can be used as a healing game. Child can reduce their anxiety by arranging puzzle.8

Children are vulnerable and dependent creatures who are always curious, active, even hopeful, this is where the child’s part of life begins for the next period (Nursalam, 2013). At preschool age, children’s activity increases which often causes fatigue so that the range of illness due to weak immune system, until the child is required to undergo hospitalization. The number of incidents of children being treated in hospitals 57 million children every year where 75% experience trauma, in the form of offer and anxiety when undergoing hospitalization (James, 2010). UNICEF survey results in 2012, the percentage of children who undergo treatment in hospital by 84%.9

Anxiety is one of the psychological disorders that can occur in children undergoing hospitalization, this impact can interfere with growth and healing process in children that is playing is one of the non-pharmacological therapies in children, one of the games is to arrange puzzles. The purpose of this study was to determine the effect of play therapy to arrange puzzles to decrease anxiety of hospitalized children aged 3-6 years in Alameda room at Abdul Moloek Hospital Lampung. This study was a quasi-experimental study with village non-equivalent control group with design pre-test and post-test. This study used purposive sampling technique with an intervention group of 17 respondents while the control group 15 respondents. Playing Puzzle interventions performed for 4 consecutive days. This study used t-test method, data analysis from PAS (Pre-school Anxiety Scale) instruments so that p-value = 0.000 < 0.05 shows that playing puzzle therapy have an effect on reducing hospitalisation anxiety in pre-school age children.

This means play therapy using puzzle therapy can be applied to children in reducing children’s anxiety at hospitalization.12

**Research approach:**

An quantitative approach for this study in order to accomplish the objectives was adopted for the study to assess the effectiveness of puzzle game on anxiety among school-going children admitted in selected hospital.

**Research design**

One group pre-test post-test experimental research design

**Setting**

In this study there search setting was Dr. D.Y. Patil Hospital, near YCM Hospital, Sant Tukaram Nagar Pimpri, Pune.

**Population**

In this study, the population consists of school-going children admitted in selected hospital.

**Sample**

In this study, Sample are hospitalized children whose age between 8-10 years.
Sampling technique

Convenient Sampling Technique

Sample size
The sample size for this study, 60 clients from Dr.D.Y.Patil Hospital.

Sampling criteria

Inclusion criteria:
1. Client age group are 8-10 yrs.
2. Client who are admitted in paediatric ward of Dr.D.Y.Patil Hospital.
3. Parents willing to give permission for research activity.

Exclusive criteria:
1. Children age group 0-7 yrs.
2. The parents not willing to give permission for research activity.
3. The client who are not critically ill.
4. The children who are mentally challenged.
5. The children who have restrictions to participate in this study

Description of the Tool:
Section I: Demographic variables consist of demographic data such as age, gender, education status, primary care giver, type of family.

Section II: Modified Five Facial Anxiety Scale, the Investigator Followed Five Facial Anxiety Scale.

Tools and Techniques
The data was analysed according to objective of the study which were
To assess the anxiety level. To assess the effective of puzzle game on anxiety among school going children.
To determine the association with post-test anxiety level among hospitalized children with their selected demographic variables.

Organisation of study findings:
In this study
Section 1- Description of Samples.
Section 2- Analysis of data related to anxiety among school going children admitted in selected hospital.
Section 3- Analysis of data related to the effectiveness of puzzle game on anxiety among school going children.
Section 4- Analysis of data related to the association with post-test anxiety level among hospitalized children with their selected demographic variable.
SECTION-I: Table1: Description of samples (school going children) based on their personal characteristics in terms of frequency and percentages.

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>Freq</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-9 years</td>
<td>48</td>
<td>80.0%</td>
</tr>
<tr>
<td>9-10 years</td>
<td>12</td>
<td>20.0%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>27</td>
<td>45.0%</td>
</tr>
<tr>
<td>Male</td>
<td>33</td>
<td>55.0%</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd-3rd</td>
<td>49</td>
<td>81.7%</td>
</tr>
<tr>
<td>4th-5th</td>
<td>11</td>
<td>18.3%</td>
</tr>
<tr>
<td>Primary care giver</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>22</td>
<td>36.7%</td>
</tr>
<tr>
<td>Mother</td>
<td>38</td>
<td>63.3%</td>
</tr>
<tr>
<td>Type of family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint</td>
<td>28</td>
<td>46.7%</td>
</tr>
<tr>
<td>Nuclear</td>
<td>32</td>
<td>53.3%</td>
</tr>
</tbody>
</table>

N=60

80% of the school going children had age 8-9 years and 20% of them had age 9-10 years. 45% of them were females and 55% of them were males. 81.7% of them were from 2nd-3rd standard and 18.3% of them were from 4th-5th standard. 36.7% of them had fathers as primary caregivers and 63.3% of them had mothers as primary caregivers. 46.7% of them had joint family and 53.3% of them had nuclear family.
Section II

Analysis of data related to anxiety among school going children admitted in selected hospital.

Figure-1: Anxiety among school going children admitted in selected hospital.

<table>
<thead>
<tr>
<th>Pretest anxiety among school going children admitted in selected hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>90% Absence of anxiety</td>
</tr>
</tbody>
</table>

N=60

Figure -1: show that Anxiety among school going children admitted in selected hospital.

In pretest, 90% of the school going children had presence of state anxiety and 10% of them did not have anxiety.

Section III

Analysis of data related to the effectiveness of puzzle game on anxiety among school going children.

Table 3: Effectiveness of puzzle game on anxiety among school going children.

<table>
<thead>
<tr>
<th>Anxiety</th>
<th>Pretest</th>
<th>Immediate test</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Freq</td>
<td>%</td>
<td>Freq</td>
</tr>
<tr>
<td>Absence of anxiety</td>
<td>6</td>
<td>10.0%</td>
<td>60</td>
</tr>
<tr>
<td>Presence of state anxiety</td>
<td>54</td>
<td>90.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

N=60

In pretest, 90% of the school going children had presence of state anxiety and 10% of them did not have anxiety. In immediate test and posttest, all the school going children did not have anxiety. This indicates that the anxiety among the school children improved remarkably after puzzle game.
Researcher applied paired t-test for the effectiveness of puzzle game on anxiety among school-going children. Average anxiety score in pretest was 22.1 which reduced to 13.3 in immediate test and 10.6 in posttest’s values for the paired t-test were 20.9 and 25.8 with 59 degrees of freedom in immediate test and posttest respectively. Corresponding p-values were small (less than 0.05), the null hypothesis is rejected. It is evident that the anxiety among school-going children reduced significantly after puzzle game.
Analysis of data related to the association with post-test anxiety level among hospitalized children with their selected demographic variable.

Table 5: Fisher’s exact test for the association with post-test anxiety level among hospitalized children with their selected demographic variable.

<table>
<thead>
<tr>
<th>Demographic variable</th>
<th>Anxiety</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Absence of anxiety</td>
<td>Presence of state anxiety</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8-9 years</td>
<td>5</td>
<td>43</td>
</tr>
<tr>
<td>9-10 years</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
<td>29</td>
</tr>
<tr>
<td>Educational status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd-3rd</td>
<td>6</td>
<td>43</td>
</tr>
<tr>
<td>4th-5th</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>Primary care giver</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>Mother</td>
<td>3</td>
<td>35</td>
</tr>
<tr>
<td>Type of family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joint</td>
<td>2</td>
<td>26</td>
</tr>
<tr>
<td>Nuclear</td>
<td>4</td>
<td>28</td>
</tr>
</tbody>
</table>

Since all the p-values are large (greater than 0.05), none of the demographic variables was found to have significant association with anxiety among school going children.

Discussion

As it’s known fact, puzzle game reduced anxiety among school going children but due to to hospitalization children anxiety increased. The range of the age children 8-9 or 9-10 result revealed, puzzle game can reduced the anxiety among school going children. Similarly, in this study on A study to assess the effectiveness of puzzle game on anxiety among school going children admitted in selected hospital out of 60 children 45% were female and 55% were male.
Conclusion

While assessment of effectiveness of puzzle game on anxiety among school going children admitted in selected hospital was done, tools/questionnaire were given. The demographic data of various aspects of anxiety level were evaluated based on pre-test or post-test. The responses were categorised in two different sections. It was based on variables like Age, Gender, educational status, primary care giver, type of family determined the range and domain of the study. Conclusive evidence was inferred upon after reviewing the responses of children regarding to Content of study delivered, puzzle game. After experimental study, the following conclusion was drawn: Puzzle game can reduced the anxiety among hospitalized children by keeping you brain busy with memory game.

Limitations
1. The study is conducted only on children between (8-10yrs)
2. The study is conducted only at selected hospital.
3. Limited to 60 samples.

Recommendation
The study can be replicated on a larger sample to generate the result.
1. The study can be done to find out the puzzle game is more effective to reduce anxiety.
2. The study can be due by increasing the duration of puzzle game more than one hour to find out the effect of reduction of anxiety.
3. The study can be done by particular type of puzzle game

Reference
6. Improving knowledge, attitudes and practice to prevent COVID-19 transmission in health care workers and the public in Thailand
7. Kritika Sharma Gargling with 7.5% sodium bicarbonate solution for SARS-CoV-2 viremia clearance: Our institutional clinical experience, 19th, January 2021