

A study to assess the effectiveness of play activities in reducing the level of anxiety among hospitalized children.

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Abstract: A quasi-experimental study was conducted for assessing the effectiveness of play activities in reducing the level of anxiety among hospitalized children. The convenient sampling technique was used to select the sample for the study. Data was collected by using hospital observed behavior check list. The tool consists of two parts. First part consists of demographic data of the sample and second part consists of the hospital observed behavior check list.

Results: The data was analyzed by using descriptive and inferential statistics. The experimental group pre – test, minimum score was 50 and maximum 58, and mean and SD was 53.4, 1.73 respectively. In experimental post-test, minimum score was 242 and maximum was 248 and mean, and SD was 246.23, 1.38 respectively.

The obtained 't' value 491.04 was statistically significant at 0.05 level. So null hypothesis rejected and research hypothesis was accepted. So there was significant reduction in the level of anxiety among the children in experimental group. In the control group, Pre-test score minimum was 51 and maximum was 56 and mean, and SD was 53.1, 1.8 respectively. In control group post test score minimum was 51 and maximum was 55 and mean, and SD was 52.97, 0.96 respectively.

The obtained 't' value was 0.724, which was statistically not significant at 0.05 level, therefore null hypothesis was accepted and research hypothesis was rejected. It is inferred that the children in the pre – test and post- test were not different with regard to anxiety. It shows that they were a comparable group. The findings shows that children were anxious in the pre-test and post-test shows that children's were not anxious or reduced anxiety the mean post test scores was significantly higher than the mean pre-test scores $t = p < 0.001$ so there was a significant association between findings and the selected demographic variables as estimated by χ^2

Conclusion: The study concluded that children were anxious in the pre-test and where as in the post-test shows that children were not anxious or reduced anxiety so, it indicates that play activities were effective. The 't' test which was computed between pre-test and post-test scores indicated that there was a reduction in the level of anxiety among the hospitalized pre -school children. Hence it indicated that play activities were effective method to reduce the anxiety.

I. Introduction

Hospitalization is stressful for children of all ages. During a serious illness, even older children have a great need for their parents and can tolerate their absence only for short periods. They need to know that their parents will be there when they need them most and that they are loved and missed. It is re- assuring to note that most children are able to survive the event of hospitalization without long-term negative effects with the help of play activities.

Nurses play a critical role in helping the child and family cope effectively with hospitalization. Play is an essential part of a child's life and is an important aspect in fostering growth and development. Toys are the "tools" of play and provide a more "natural" environment for a child. The proper selection and use of toys can reduce the traumatic effects of a hospitalization experiences and aid in the recovery phase of illness¹.

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. Paints modelling clay dolls, blocks, games, books, toys and interactive computer technology are some of the materials with which children rebuild the world to their size a world they bring with them of people, special belongings (e.g.: blanket or toys), and feelings. A child's play is his or her occupation or work. Designing a play program buffers. The effects of separation from family, feelings of isolation and painful or frightening experiences such as intensive procedures. Play promotes healing and helps the child to cope with stressful experiences.

The attitudes and feelings that children reveal in their play are full of meaning. Every opportunity should be afforded the hospitalized children to use play and other expensive activities to lessen stress, thus

promoting healthy resolution of the negative aspects of the hospital experiences. The proper selection of toys can provide constructive, educational stimulating relaxing, diversion, or therapeutic value.

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.

Catharine [2001]: Reported that children in the hospital need play provision not only because they have natural needs for play but also for other reasons such as

- ❖ To prevent developmental regression
- ❖ To reduce parental and child stress and anxiety
- ❖ To facilitate communication between staff and children
- ❖ To encourage the child co-operation in hospital procedures².

Saucier [1998]: Stated that Play activities can be used in a multitude of setting and in a multidisciplinary fashion³.

Ziegler [1999]: State that one of every four children will be hospitalized at least once before reaching school age. The physical and psychosocial stress of hospitalization may be influenced by the child developmental level, causing behaviour changes, somatic complaints and a prolonged hospital stay. Through the use of careful developmental assessments, preoperative tours and therapeutic play techniques, fear can be allayed misconceptions correlated emotionally charged issues addressed and a positive self-image created. Other purposes of therapeutic play are helps sick children gradually regain independence through enjoyment of group experiences. Creativity can be developed through playing with toys, games and group projects⁴.

OBJECTIVES OF THE STUDY

1. To assess level of anxiety among hospitalized children before administering play activities in experimental and control group.
2. To determine the effectiveness of play activities among hospitalized children in experimental group.
3. To determine the association in anxiety level among hospitalized children in selected variables such as age, sex and income of the family.

HYPOTHESES

H₀ – There is no significant difference on the level of anxiety among the hospitalized children between experimental and control group.

H₁ – There will be significant difference on the level of anxiety of children who admitted in medical ward between experimental and control group in pre-test.

H₂ - There will be significant difference in anxiety among children who admitted in medical ward before and after the Play activities in the experimental group.

H₃ - There will be significant difference in anxiety among children who admitted in medical ward before and after the Play activities in the control group.

H₄ – There will be a significant difference in the anxiety of children who admitted in medical ward between experimental and control group in post observation.

H₅ – There will be a significant difference in anxiety among children who admitted in medical ward in experimental group in post-test observations.

H₆ - There will be a significant difference in anxiety among children who admitted in medical ward in control group in post-test observations.

H₇ - There will be a significant association between pre-test post-test scores and selected demographic variables.

II. Methods And Materials

The research approach used for the study was untreated control group design with pre-test and post - test which belongs to quasi Experimental design. The pilot study was conducted with 6 sample of children were selected by convenient sampling technique. A check list was used to assess the anxiety among the hospitalized preschool children in selected hospital. The reliability was established by using split half method and it was found to be $r = 0.92$ which indicate that the tool was reliable.

III. Results

DEMOGRAPHIC FINDINGS

- Majority of children both in experimental group 50% and control group 60% belonged to 4-5 years. Majority of children participated in the study were male 60% both in experimental and control group.
- Greater percentage of subjects participated in the study were rural children in both experimental and control group.
- Majority of children participated in the study from joint family in both experimental and in the control.
- Majority of children participated in the study from joint family in both experimental 50% and in the control 70% greater percentage of children. In experimental group and control group 60% had family income of < 2000
- Maximum number of children in experimental group 70% and control group 70% belonged to Hindu religion.
- Maximum number of children in experimental group 93.3% and control group had previous to hospital.

ANALYSIS OF OBSERVATIONAL SCORE ON EFFECTIVENESS OF PLAY ACTIVITIES

Table 1

Analysis of observational scores in experimental group						
Group	Minimum	Maximum	Mean	SD	't' value	'p' value
Pre test	50	58	53.4	1.73		
Post test	242	248	246.23	1.38	491.04	P<0.001
DF = 29						

Table – 1 shows that in the experimental group pre – test score was minimum 50 and maximum 58, and mean and SD was 53.4, 1.73 respectively. In experimental post test score was minimum was 242 and maximum was 248 and mean, and SD was 246.23, 1.38 respectively. The obtained 't' value 491.04 statistically was significant at 0.05 level. So null hypothesis rejected and research hypothesis was accepted. So there was significant reduction in the level of anxiety among the children in experimental group.

Table 2

Analysis of observational scores in control group						
Group	Minimum	Maximum	Mean	SD	't' value	'p' value
Pre test	51	56	53.1	1.18	0.724	P=0.475(NS*)
Post test	51	55	52.97	0.96		
DF = 29, (NS) *=Not Significant						

In the control group Pre-test score minimum was 51 and maximum was 56 and mean, and SD was 53.1, 1.8 respectively. In control group post test score minimum was 51 and maximum was 55 and mean, and SD was 52.97, 0.96 respectively. The obtained 't' value is 0.724 statistically was not significant at 0.05 level, therefore null hypothesis was accepted and research hypothesis was rejected. It is inferred that the children in the pre – test and post- test were not different with regarded to anxiety. It shows that they were a comparable group.

Table 3

Comparison of mean score of experimental pre- test and control pre – test.

Group	Student's 't' test	'p' value.
Experimental and control group	0.782	0.437 [NS]*

D.F = 58, [NS]*= Not significant

Table 3 shows that obtained 't' value of anxiety among the experimental and the control group in pre – test. The obtained 't' value is 0.437 which is statistically not significant at 0.05 level, therefore null hypothesis was accepted and research hypothesis was rejected. So there was no significant level of anxiety in the children among the experimental group and control group in pre – test. It is inferred that, the children in the experimental group and the control group were not different with regard to anxiety in pre- test. It shows that they were a comparable group.

Table 4
Comparison of mean score of experimental post – test and control post – test.

Group	Student's 't' test	'p' value.
Experimental and control group D.F = 58	T = 628.25	P<0.001

Table 4 explained that the obtained 't' value is 628.25 is statistically significant at 0.05 level, therefore null hypothesis was rejected and research hypothesis was accepted.

Table 5
Comparison of mean score of experimental pre – test and control post – test.

Group	Student's 't' test	'p' value.
Experimental and control group D.F = 58, [NS]*= Not significant	T = 1.196	P = 0.236[NS]*

Table 5 shows that the obtained 't' value is 1.196 statistically not significant at 0.05 level, therefore null hypothesis was accepted and research hypothesis was rejected. It is inferred that, the children in the experimental group and the control group were not different with regard to anxiety in pre-test. It shows that they were a comparable group

Table 6
Comparison of mean score of experimental post - test and control pre – test.

Group	Student's 't' test	'p' value.
Experimental and control group D.F = 58	T = 581.211	P<0.001

Table 6 explained that the obtained 't' value is 581.211 statistically was significant at 0.05 level, therefore null hypothesis was rejected and research hypothesis was accepted.

IV. Discussion

The attitude and feelings that children show in their play are full of meaning. Every opportunity should be afforded the hospitalized child to use play and other expression activities to lessen anxiety, thus promoting healthy resolution of the negative aspect of the hospital experience. Therefore, the present study was extended to assess the effectiveness of play activities in reducing the level of anxiety among hospitalized children with a selected play material. In order to achieve the objectives of the study an evaluative approach was adopted. Convenient Sampling technique was used to select the sample. The data was collected from 60 children from selected hospital. The findings of the study were discussed as per the objectives and hypotheses.

The study concluded that children were anxious in the pre-test and the post-test shows that children were not anxious or reduced anxiety so, it indicates that play activities was effective. The 't' test which was computed between pre-test and post-test scores indicated that there was a reduction in the level of anxiety among the hospitalized preschool children. Hence it indicated that play activities was effective method to reduce the anxiety.

Recommendations

1. Similar study may be replicated on large sample.
2. A comparative study may be conducted between rural children's and urban children's.
3. A case study may be conducted on quality of life among hospitalized children.
4. Similar study can be conducted without using control group.

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