

# A Randomized Clinical Trial to Evaluate the Effectiveness of Storytelling by Researcher on the Hospitalization Anxiety of Children Admitted in Pediatric Ward of Selected Hospitals of District Patiala, Punjab

Lata Kanchan<sup>1</sup>, Sharma Mukesh Chandra<sup>2</sup>, Sareen Aarti<sup>3</sup>

<sup>1</sup>M.Sc –Child Health Nursing

<sup>2</sup>Associate Professor Child Health Nursing

<sup>3</sup>Associate Professor, Pediatrics

**Abstract:** *Introduction:* Hospitalization is considered as stressful event for children of all ages. The hospitalization anxiety in child can delay the disease recovery process. So it is necessary to provide some distraction therapy to children to make their hospitalization a better experience for them. Storytelling can act as a distracter and help in reduction of anxiety of hospitalized children. *Aim:* The aim of the study was to evaluate effectiveness of storytelling on hospitalization anxiety of children. *Method:* An experimental approach with pretest post test control group design was used. Total 180 samples were selected by using disproportional stratified sampling technique. Tools used for data collection were Observational Checklist, Structured Interview schedule and feeling faces. *Results:* Results showed there is significant decrease in post-test hospitalization anxiety scores ( $z=-8.243$ ,  $p<0.05$ ) assessed by observational checklist, ( $z=-9.381$ ,  $p<0.05$ ) by interview schedule.

**Keywords:** Hospitalization anxiety, Hospitalized children, storytelling.

## 1. 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. [1] About 30 percent of children are hospitalized at least once during their childhood in the hospital; about 5% of them are hospitalized several times. The hospitalization stress in children can lead to sleep or appetite disorders and developmental disorders and it can delay the disease recovery process. [2] Anxiety is feeling of uneasiness caused by fear. It can make children feel tense, nervous and afraid. To reduce the effects of stress on admitted children, various methods such as music play therapy showing cartoons are used. Story telling is also a method of stress reduction and when used as a cognitive technique, it acts as a distracter. [3] Story telling is a low cost non-pharmacological treatment. Story telling is a method of anxiety reduction and could be used as a non-invasive therapeutic tool to reduce the pain and anxiety of hospitalized children. Story telling is the sharing of stories through words, sounds and visual images. Stories serve as a model, teach values and skill, and can provide insight on both a conscious and unconscious level [4].

It may help in reducing sufferings of hospitalized child and help them to adjust somewhat to their environment by minimizing stressors and acting as a distraction therapy. So investigator was motivated to carry out study.

## 2. Material & Methods

**Research design:** In relation to the study pretest post test control group design was selected. In this study

**Key:** True experimental (pretest posttest control group) design was adopted for the present study.

E O<sub>1</sub> X O<sub>2</sub>

C O<sub>3</sub> – O<sub>4</sub>

E= Experimental group

C= control group

O<sub>1</sub>= observation of hospitalization anxiety at pre test of experimental group.

O<sub>2</sub>= observation of hospitalization anxiety at post test of experimental group.

O<sub>3</sub>= observation of hospitalization anxiety at pre test of control group.

O<sub>4</sub>= observation of hospitalization anxiety at post test of control group.

X= Story telling

- = NO treatment

### Research setting

The study was conducted at Gian Sagar Medical College and Hospital & Rajindra Hospital of District Patiala, Punjab.

### Target population

The target population for a study is the entire set of individuals to be used to make inferences. In this study the target population was 6-12 years of hospitalized children.

### Sample & Sampling Technique

Volume 4 Issue 10, October 2015

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In this study total 180 hospitalized children admitted in Gian Sagar Medical College & Hospital, Rajindra Hospital of district Patiala were selected by using disproportional stratified sampling technique. First of all researcher divided the population into 3 strata based on age of hospitalized children (6-8 years, 9-10 years, 11-12 years). After dividing the population into strata disproportional random samples were taken from each strata.

**Inclusion criteria**

1. Hospitalized children of age group 6-12 years
2. Children who were able to read

**Exclusion criteria**

1. Hospitalized children other than age group of 6-12 years.
2. Children whose parents do not allow them to participate in study.

**Selection & development of tool**

Tools were prepared on the basis of objective of study. An observational checklist, structured interview schedule and feeling faces were prepared to evaluate hospitalization anxiety of the children. It was considered to be the most appropriate instrument to evaluate hospitalization anxiety of the children. For response of subjects tool was translated into Hindi from expert and validated from expert who was having masters in Hindi. Tools were selected according to the objectives of the study. Observational checklist, structured interview schedule and feeling faces were prepared to measure anxiety of hospitalized children.

**Validity**

The suggestions of the experts were incorporated into the tools and it was further modified with the opinion of the experts and consultation of the guide & co-guide. To identify the construct validity tool was administered to known group of non hospitalized children and 'r' was found to be 0.25 it shows that there is no correlation between the 2 groups hence construct of the tool was appropriate.

**Reliability**

In order to establish the reliability, the tool was tested on 6 hospitalized children. To test the reliability of structured interview schedule Test-Re-Test method was used and 'r' was found to be (0.99). And to assess the reliability of observation checklist inter-rater reliability was used and 'r' was found to be (0.86).

**Data Collection Procedure**

A written permission was obtained from the concerned authority prior to the study. Using disproportional Stratified sampling technique, 180 samples were selected (90 in experimental group and 90 in control group). Purpose of study was explained to the parents of the hospitalized children and consent was taken from them. After obtaining consent assent was taken from children followed by anxiety measurement of children through the observational checklist, structured interview schedule and feeling faces of both experimental and control group than researcher engaged the child in story telling and again measured the anxiety of the children. In control group anxiety was measured by the researcher without any interventions by the researcher.

**Ethical consideration**

The study was started after the approval of the ethical committee of Gian Sagar Medical College & Hospital, Ram Nagar, Rajpura, District Patiala & concerned authorities of selected hospitals of district Patiala. Parents of the subjects were assured about the confidentiality of data collected.

**Plan for Data Analysis**

The data collected was planned to analyze in terms of objectives of the study by using descriptive & inferential statistics.

**Section A: Anxiety Scores of the hospitalized Children**

This section deals with the hospitalization anxiety scores of both experimental and control group among hospitalized children of age group 6-12 years.

**Table 1:** Frequency, percentage distribution of level of hospitalization anxiety among samples by observational checklist

N=180, n<sub>1</sub>=90, n<sub>2</sub>=90

Age	Level of hospitalization anxiety	Score	Experimental group				Control group			
			Pre		Post		Pre		Post	
			f	%	f	%	f	%	f	%
6-8 Years	Mild	1-33	0	0	22	73	0	0	0	0
	Moderate	34-36	21	70	8	27	20	67	20	67
	Severe	67-100	9	30	0	0	10	33	10	33
9-12 Years	Mild	1-24	0	0	26	43	0	0	0	0
	Moderate	25-49	31	52	34	57	31	52	31	52
	Severe	50-74	29	48	0	0	29	48	29	48

Table 1 depict that in experimental group age group (6-8 years) maximum number of children 21(70%) of the child was having moderate anxiety and 9 (30%) of child was having severe hospitalization anxiety and in post anxiety scores none of the child was having severe anxiety, 8 (27%) of the children were having moderate anxiety and 22(73%) of children were having mild anxiety. While In Control group maximum number of children 20 (67%) was having moderate hospitalization anxiety and 10 (33%) of Children was having severe hospitalization anxiety. There was no change in post hospitalization anxiety scores of the children in control group While in age group of 9-12 experimental group shows 31 (52%) of the child was having moderate hospitalization anxiety and 29 (48%) of child was having severe hospitalization anxiety and in post hospitalization anxiety 26(43%) of children were having mild hospitalization anxiety and 34 (57%) of children were having moderate hospitalization anxiety. In Control group 31 (52%) of the children were having moderate anxiety and 29 (48%) of Children were having severe hospitalization anxiety. There was no change in post hospitalization anxiety scores of the children in control group.

**Table 2:** Frequency and percentage distribution of level of hospitalization anxiety by structured Interview schedule  
 N=180, n<sub>1</sub>=90 n<sub>2</sub>=90

Age	Level of hospitalization anxiety	Score	Experimental group				Control group			
			Pre		Post		Pre		Post	
			f	%	f	%	f	%	f	%
6-8 Years	Mild	1-27	0	0	48	53	2	2	2	2
	Moderate	28-55	49	54	42	47	49	54	49	54
	Severe	56-84	41	46	0	0	39	44	39	44

Table 2 depict that in experimental group 49 (54%) of the children were having moderate anxiety and 41 (46%) of children were having severe hospitalization anxiety and post anxiety scores were 42(47%) of the children were having moderate hospitalization anxiety, 48(53%) of children were having mild hospitalization anxiety. While In Control group maximum 49 (54%) of children were having moderate anxiety and 39 (44%) of Children was having severe hospitalization anxiety and post anxiety scores in the control were same as the pre anxiety scores

**Table 3:** Frequency and percentage distribution of level of hospitalization anxiety feeling faces  
 N=180, n<sub>1</sub>=90, n<sub>2</sub>= 90

Faces	Experimental group				Control group			
	Pre		Post		Pre		Post	
	f	%	f	%	f	%	f	%
<b>Happy</b>	0	0	57	63	0	0	0	0
<b>Relaxed</b>	0	0	32	36	0	0	0	0
<b>Shy</b>	0	0	1	1	0	0	0	0
<b>Lonely</b>	20	22	0	0	19	21	19	21
<b>Worried</b>	28	31	0	0	30	33	30	33
<b>Sad</b>	19	21	0	0	20	22	20	22
<b>Tired</b>	0	0	0	0	5	6	5	6
<b>Scared</b>	11	12	0	0	6	7	6	7
<b>Angry</b>	9	10	0	0	8	9	8	9
<b>Crying</b>	3	4	0	0	2	2	2	2

Table 3 depict that in experimental group pretest scores shows maximum number of children feeling faces were showing anxiety like (lonely, worried, sad, tired, scared, angry, crying) but after storytelling all children were happy and relaxed. While in control group pretest and posttest feeling faces of children were same.

**Section B: Comparison of pre and post hospitalization anxiety scores in the experimental group.**

**Table 4:** Comparison of pre and post hospitalization anxiety scores in the experimental group through observational checklist  
 n<sub>1</sub>=90

Anxiety scores	Number	mean rank of anxiety scores	Wilcoxon paired sign rank test (Z value)	P value
Pre test	90	45.50	-8.243*	0.000
Post test	90			

\* = Significant

Table 4 shows the comparison of hospitalization anxiety scores before and after the story telling through structured Interview schedule. To test the hypothesis Wilcoxon paired

sign rank test was used and it was concluded that there is significant decrease in post hospitalization anxiety scores (Z=-8.243, p<0.05). Hencewe can conclude that storytelling is effective in reducing the hospitalization Anxiety of children.

**Table 5:** Comparison of pre and post hospitalization anxiety scores in the experimental group through structured interview schedule, n<sub>1</sub>=90

Anxiety scores	Number	mean rank of scores	Wilcoxon paired sign rank test (Z value)	P value
Pre test	90	45.50	-9.381*	0.000
Post test	90			

\* = Significant

Table 5 shows the comparison of hospitalization anxiety scores before and after the story telling through structured Interview schedule. To test the hypothesis Wilcoxon paired sign rank test was used and it was concluded that there is significant decrease in post hospitalization anxiety scores (Z= -9.381, p<0.05). Hencewe can conclude that storytelling is effective in reducing the hospitalization anxiety of children.

**3. Discussion**

The findings of study reveals that by using Wilcoxon Paired Sign Rank test it was concluded that there is significant difference between pre and post hospitalization anxiety scores (Z=-8.243, p<0.05). Hencewe can conclude that story telling is effective in reducing the hospitalization Anxiety.

Another study done by Khadoge Zareli, Zohre Parade also supports the effectiveness of storytelling in reducing child hospitalization anxiety. Clinical trial was executed on 64 hospitalized children of 7 to 10 years old. The comparison of average of anxiety subscales in control group shows that the average of physiological and social anxiety on the first and sixth days had not any meaningful statistical differentiation (p > 0/05). But in intervention groups, the comparison of the anxiety subscale on the first and sixth days showed a meaningful statistical differentiation. Therefore, the use of storytelling as a non-drug-based, easy, inexpensive, accessible and children-favored method is advised. In research can introduce the storytelling as an inventive and new method to the domain of caring and curing in the children wards.<sup>5</sup>

A study conducted by Sohiella on was to examine effects of performing preoperative preparation program on children's anxiety. Analyzing was performed through independent t-test and  $\chi^2$  test. P<0.005 was considered statistically significant. The experimental group received storytelling and the control group received routine preoperative information preparation. The mean and standard deviation of the state anxiety scores of children in experimental and control groups before intervention were (36.52±5.90) and (34.98±6.78) after intervention (28.44±5.87) and (28.31±7.40) respectively. The state anxiety score was lower significantly in the experimental group prior to preoperative surgery than in the control group (P=0.000).<sup>6</sup>

#### 4. Conclusion

The conclusion was based on findings of the study. The result revealed that there is significant decrease in the post hospitalization anxiety scores of children at 0.05 level of significance in experimental group as compared to control group which shows that story telling was effective.

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