



## *International Journal of Research In Paediatric Nursing*

E-ISSN: 2664-1305

P-ISSN: 2664-1291

[www.paediatricnursing.net](http://www.paediatricnursing.net)

IJRPN 2024; 6(2): 141-147

Received: 12-09-2024

Accepted: 18-10-2024

**Saika Majid**

M.Sc. Nursing Final Year,  
Child Health Nursing,  
Stephens College of Nursing,  
Jammu, Jammu and Kashmir,  
India

**Heena Kumari**

M.Sc. Nursing, Assistant  
Professor, Department of Child  
Health Nursing, Stephens  
College of Nursing, Jammu  
and Kashmir, India

### **A quasi-experimental study to evaluate the effectiveness of play therapy in reducing the level of anxiety among hospitalized children in Shri Maharaja Gulab Singh (SMGS) Hospital, Jammu**

**Saika Majid and Heena Kumari**

DOI: <https://doi.org/10.33545/26641291.2024.v6.i2b.183>

#### **Abstract**

Hospitalization causes stress for children of all ages. During serious illness, even older children greatly need their parents and can only tolerate brief separations. They need to know that their parents will be there when they need them most and that they are loved and missed. When a child falls ill or sustains an injury severe enough to necessitate hospitalization, it can be a traumatic experience for both the child and their family. The aim of the study is to assess the effectiveness of play therapy in reducing the level of anxiety among hospitalized children in Shri Maharaja Gulab Singh (SMGS) Hospital, Jammu. A quantitative research approach with quasi-experimental research design was adopted for the study. 60 hospitalized children were selected through purposive sampling technique (30 in experimental group and 30 in control group). Level of anxiety was assessed by using self-structured children's anxiety scale. Result showed that before play therapy, in experimental group 22 (37%) of child had severe anxiety and in control group, 26 (43%) of child had severe anxiety. After play therapy, in experimental group 28 (47%) of child had mild anxiety, and in control group, 27 (45%) of child had severe anxiety. The study findings also revealed that majority of children i.e., 22 (37%) have severe anxiety before play therapy and 28 (47%) have mild anxiety after play therapy in experimental group. Moreover, in control group, majority of children have severe anxiety 26 (43%) before and 27 (45%) after play therapy.

Analysis revealed a significant decrease in mean anxiety scores from 72.266 in the pretest to 24 in the post-test, accompanied by a reduction in standard deviation from 7.234 to 4.660 in the experimental group. The calculated 't' value of 32.0742 indicated a statistically highly significant difference between pretest and post-test anxiety levels, demonstrating the effectiveness of play therapy in reducing anxiety levels among hospitalized children.

**Keywords:** Level of anxiety, effectiveness, play therapy, hospitalized children

#### **Introduction**

Children represent the future of every nation. The health status of a country's children provides an important indicator of the overall health of the nation. Children are the vibrant and cherished members of society, children resemble clay in the hands of a potter-dependent on adults for care, guidance, and support as they grow physically, mentally, emotionally and socially. Health, often seen as one of life's most valuable assets, involves overall well-being encompassing physical, mental and social dimensions. Achieving and maintaining good health is essential for a fulfilling, productive life <sup>[1]</sup>.

Hospitalization causes stress for children of all ages. During serious illness, even older children greatly need their parents and can only tolerate brief separations. They need to know that their parents will be there when they need them most and that they are loved and missed. When a child falls ill or sustains an injury severe enough to necessitate hospitalization, it can be a traumatic experience for both the child and their family. The effect of hospitalization on children varies with age, reason for stay, and duration. It can be frightening with an unfamiliar environment, medical procedures, and family separation provoking anxiety and fear.

**Corresponding Author:**

**Saika Majid**

M.Sc. Nursing Final Year,  
Child Health Nursing,  
Stephens College of Nursing,  
Jammu, Jammu and Kashmir,  
India

Illness itself can trigger anxiety from the uncertainty and disruption it brings. Anxiety may be reduced through provision of play therapy [2].

Play is an essential part of childhood, fostering growth and development. Toys are the "tools" of play, providing a more natural environment. Properly selecting and using toys can reduce traumatic effects of hospitalization and aid recovery. Play is the joyful, intrinsically motivated act of engaging in activities free from external goals or utility. With no age limit, play takes diverse forms from children's imaginative games to adult hobbies, sports or leisure pursuits. Play powerfully facilitates learning, creativity, and social interaction with profound implications for cognitive, emotional and physical development. Play assumes particular significance for hospitalized children. When illness and hospitalization disrupt daily life, introducing fear and uncertainty, play becomes a vital coping and healing tool for emotional expression. Play provides familiarity and normalcy, enabling children to regain some control over their environment and emotions [3].

## 2. Statement of the study

"A quasi-experimental study to evaluate the effectiveness of play therapy in reducing the level of anxiety among hospitalized children in Shri Maharaja Gulab Singh (SMGS) hospital, Jammu".

### Objectives of the study

- To evaluate the level of anxiety before play therapy among hospitalized children in experimental and control group.
- To evaluate the level of anxiety after play therapy among hospitalized children in experimental and control group.
- To compare the effectiveness of play therapy on level of anxiety among hospitalized children in experimental and control group.
- To find out the association between level of anxiety among hospitalized children with their selected demographic variables.

### Material and Methods

**Research Approach:** A quantitative research approach was adopted in this study.

**Research Design:** A Quasi-experimental design was used in this study.



### Setting of the study

The study was conducted in Shri Maharaja Gulab Singh (SMGS) hospital, Jammu.

The reason for selecting the Shri Maharaja Gulab Singh (SMGS) hospital was

- Availability of subjects.
- Familiar to the area.

### Population

The population of the study were hospitalized children.

### Sample

The hospitalized children, who fulfils the inclusion criteria who were residing at the Shri Maharaja Gulab Singh (SMGS) hospital, Jammu.

### Sample Size

The selected sample size which was taken in the study was 60.

- 30 samples were in experimental group.
- 30 samples were in control group

### Sampling Technique

Purposive sampling technique was used for the present study.

### Methods of data collection

Tool used in the study was divided into two parts:

**Section A:** Socio demographic variables.

**Section B:** Self-structured children's anxiety scale.

### Section A

**Demographic variables:** Consists of questions to elicit demographic data such as age of children in years, gender, education status of children, type of family, monthly family income, type of residence, length of hospitalization.

### Section B

The **Self structured children's anxiety scale** is a rating scale that is intended to provide an analysis of the severity of anxiety. It is a three-point scale. A rating of (0) indicates never, (1) Indicates sometimes, (2) Indicates often, (3) Indicates always.

### Validity

The content of the tool was validated by obtaining valuable opinions and suggestions from 9 faculty members of different departments i.e., Child health nursing, Obstetrics and Gynaecology, Medical surgical nursing, Community health nursing and mental health nursing of Stephens College of Nursing Miran sahib Jammu and 5 external experts of different nursing colleges of Jammu Kashmir and Punjab. These experts were from the specialty of Child Health Nursing. Out of these 5 validated contents of the tool were received from their experts with their valuable suggestions were taken into consideration and necessary modification were incorporated in the final preparation of the self-structured children's anxiety scale. The experts were requested to check the items for relevance, clarity and appropriateness of the content. The modifications were done in the tool based on experts, suggestions and consultation with guide. So final tool was reframed.

### Reliability

Reliability of the self-structured children's anxiety scale was checked using split half method. It was found to be 0.714 which indicated tool was reliable.

### Results and Discussion

#### Data Analysis and interpretation

**Table 1:** Frequency and percentage distribution of socio demographic variables, N=60

S. No.	Socio-demographic variables	Experimental group		Control group		X <sup>2</sup> , DF, P-Value
		F	%	F	%	
1.	<b>Age</b>					0.6593
	6-8	18	30%	21	35%	1
	9-12	12	20%	9	15%	0.4168 <sup>NS</sup>
2.	<b>Gender</b>					2.4434
	Boy	16	27%	10	17%	1
	Girl	14	23%	20	33%	0.1180 <sup>NS</sup>
3.	<b>Education status of children</b>					0.2871
	1 <sup>st</sup> - 3 <sup>rd</sup> standard	18	30%	20	33%	1
	4 <sup>th</sup> - 7 <sup>th</sup> standard	12	20%	10	17%	0.5921 <sup>NS</sup>
4.	<b>Type of Family</b>					2.7
	Nuclear	13	22%	7	12%	1
	Joint	17	28%	23	38%	0.1003 <sup>NS</sup>
5.	<b>Monthly family income</b>					1.486
	≤ 10,000	4	7%	6	10%	3
	10,001-20,000	15	25%	17	28%	0.6855 <sup>NS</sup>
	20,001- 30,000	7	12%	4	7%	
6.	<b>Type of residence</b>					0.2667
	Urban	16	27%	14	23%	1
	Rural	14	23%	16	27%	0.6056 <sup>NS</sup>
7.	<b>Length of hospital stay</b>					12.1111
	1-5 days	14	23%	2	3%	3
	6-10 days	7	12%	14	23%	0.0070*
	11-15 days	7	12%	7	12%	
	15 <sup>th</sup> and above	2	3%	7	12%	

NS= Non-significant, \*Significant at  $p < 0.05$  level

Above table shows that chi square was used to check the homogeneity of experimental and control group. It was found that experimental and control group were homogeneous in regard to socio-demographic variable like age, gender, educational status of children, type of family, monthly family income (in rupees), type of residence.

According to age of child, in experimental group 18 (30%) were in the age group of 6-8 years, 12 (20%) were in 9-12 years. In control group, 21 (35%) of children were in the age group of 6-8 years, 9 (15%) were in 9-12 years. According to gender of child, in experimental group 16 (27%) were boys and 14 (23%) were girls. In control group, 10 (17%) were boys and 20 (33%) were girls.

According to educational status of children, in experimental group 18 (30%) of child studied in 1<sup>st</sup>-3<sup>rd</sup> standard, 12 (20%) were studied in 4<sup>th</sup> - 7<sup>th</sup> standard. In control group 20 (33%) of child studied in 1<sup>st</sup>-3<sup>rd</sup> standard, 10 (17%) were studied in 4<sup>th</sup> - 7<sup>th</sup> standard. According to type of family, in experimental group 13 (22%) were in nuclear family and 17 (28%) were in joint family. In control group 7 (12%) were in nuclear family and 23 (38%) were in joint family.

According to monthly family income (in rupees), in experimental group 4 (7%) of child's family income were ≤ 10,000, 15 (25%) of child family income were 10,001-20,000, 7 (12%) of child family income were 20,001-30,000 and 4 (7%) of child family income were ≥ 30,000. In control group 6 (10%) of child family income were ≤ 10,000, 17 (28%) of child's family income were 10,001-20,000, 4 (7%) of child's family income were 20,001-30,000 and 3 (5%) of child's family income were ≥ 30,000.

According to type of residence, in experimental group 16

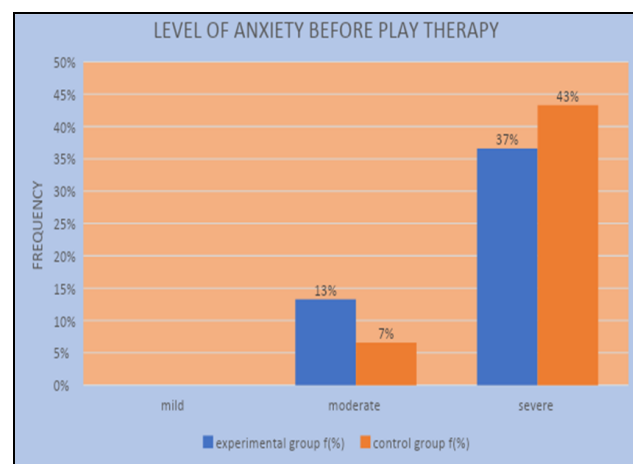
(27%) of child were from urban area and 14 (23%) of child were from rural area. In control group 14 (23%) of child were from urban area and 16 (27%) of child were from rural area. According to length of hospital stay, in experimental group 14 (23%) of child length of hospital stay was 1-5 days, 7 (12%) was from 6-10 days, 7 (12%) was from 11-15 days, 2 (3%) was from 15<sup>th</sup> and above. In control group 2 (3%) of child length of hospital stay was 1-5 days, 14 (23%) was from 6-10 days, 7 (12%) was from 11-15 days, 7 (12%) was from 15<sup>th</sup> and above.

## Section-II

**Table 2:** Frequency and percentage distribution of level of anxiety among experimental and control group before play therapy, N=60

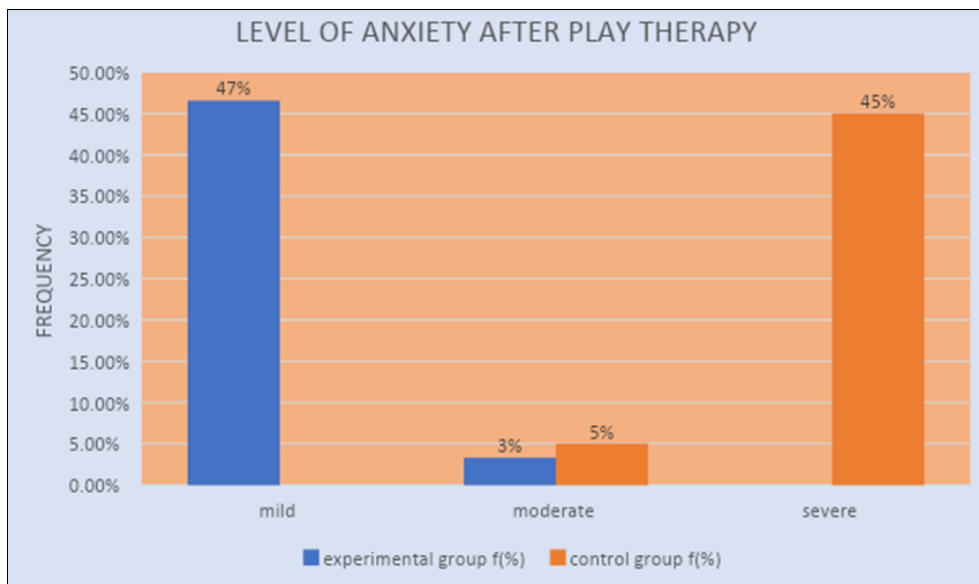
Level of anxiety	Anxiety score	Level of anxiety before play therapy	
		Experimental group (n <sub>e</sub> = 30) f (%)	Control group (n <sub>c</sub> = 30) f (%)
Mild	0-30	0 (0%)	0 (0%)
Moderate	31-60	8 (13%)	4 (7%)
Severe	61-90	22 (37%)	26 (43%)

Above table shows that in experimental group 22 (37%) of child had severe anxiety, 8 (13%) had moderate anxiety and 0 (0%) had mild anxiety. In control group, 26 (43%) of child had severe anxiety, 4 (7%) had moderate anxiety and 0 (0%) had mild anxiety.

**Fig 1:** Frequency and percentage distribution according to level of anxiety before play therapy.**Table 3:** Frequency and percentage distribution of level of anxiety among experimental and control group after play therapy.

Level of anxiety	Anxiety score	Level of anxiety after play therapy	
		Experimental group (n <sub>e</sub> = 30) f (%)	Control group (n <sub>c</sub> = 30) f (%)
Mild	0-30	28 (47%)	0 (0%)
Moderate	31-60	2 (3%)	3 (5%)
Severe	61-90	0 (0%)	27 (45%)

Above table shows that in experimental group 28 (47%) of child had mild anxiety, 2 (3%) had moderate anxiety and 0 (0%) had severe anxiety. In control group, 27 (45%) of child had severe anxiety, 3 (5%) had moderate anxiety and 0 (0%) had mild anxiety.



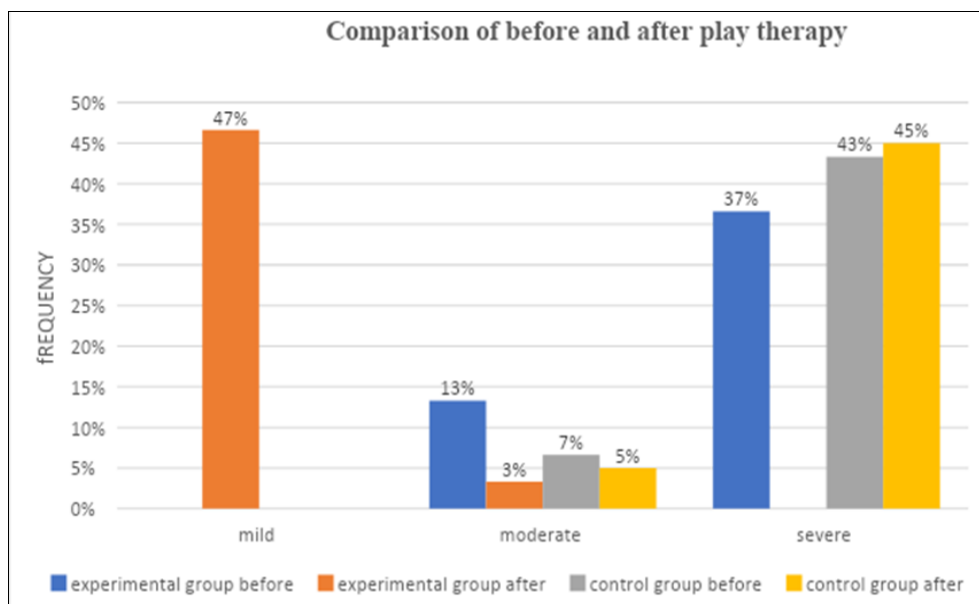
**Fig 2:** Frequency and percentage distribution according to level of anxiety after play therapy

**Table 4:** Comparison of before and after play therapy on level of anxiety in experimental and control group, N=60

Level of anxiety	Experimental group n <sub>e</sub> = 30		Control group N <sub>c</sub> = 30	
	Before f <sub>1</sub> (%)	After f <sub>2</sub> (%)	Before f <sub>1</sub> (%)	After f <sub>2</sub> (%)
Mild	0 (0%)	28 (47%)	0 (0%)	0 (0%)
Moderate	8 (13%)	2 (3%)	4 (7%)	3 (5%)
Severe	22 (37%)	0 (0%)	26 (43%)	27 (45%)

Above table shows that in experimental group, majority of children i.e., 22 (37%) have severe anxiety before play therapy and 28 (47%) have mild anxiety after play therapy.

Moreover, in control group, majority of children have severe anxiety in both before and after play therapy.



**Fig 3:** Frequency and percentage distribution of comparison.

### Section-III

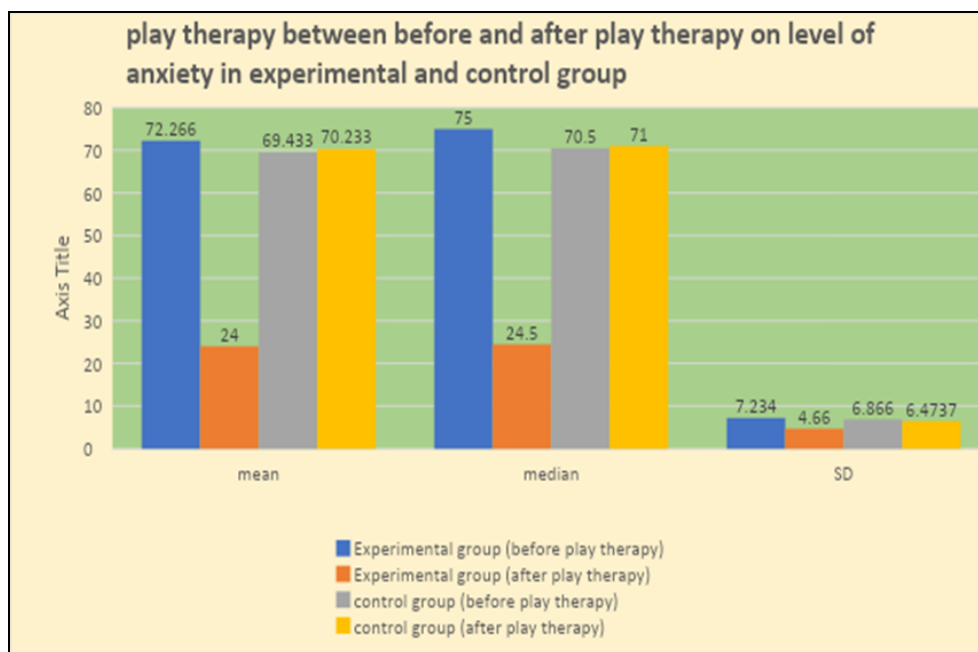
**Table 5:** Effectiveness of play therapy between before and after play therapy on level of anxiety in experimental and control group, N=60

Group	Test	Mean	Median	S.D	DF, P-Value	Paired t-test
Experimental group	Before	72.266	75	7.234	29	32.0742*
	After	24	24.5	4.660	0.0001	
Control group	Before	69.433	70.5	6.866	29	1.5338 <sup>NS</sup>
	After	70.233	71	6.4737	0.1352	

NS: Non-significant, \*Significant at  $p < 0.05$  level

Above given table shows that there was significant difference in mean of anxiety in before and after play therapy in experimental group when calculated by paired 't' test. Whereas there was no significant difference in mean of anxiety in before and after play therapy in control group. These findings suggest that hypothesis ( $H_1$ ) is accepted

which states that there will be significant difference on anxiety before and after play therapy among hospitalized children in experimental group. Hence, it is concluded that play therapy was effective in reducing level of anxiety in experimental group.



**Fig 4:** Effectiveness of play therapy between before and after play therapy on level of anxiety in experimental and control group

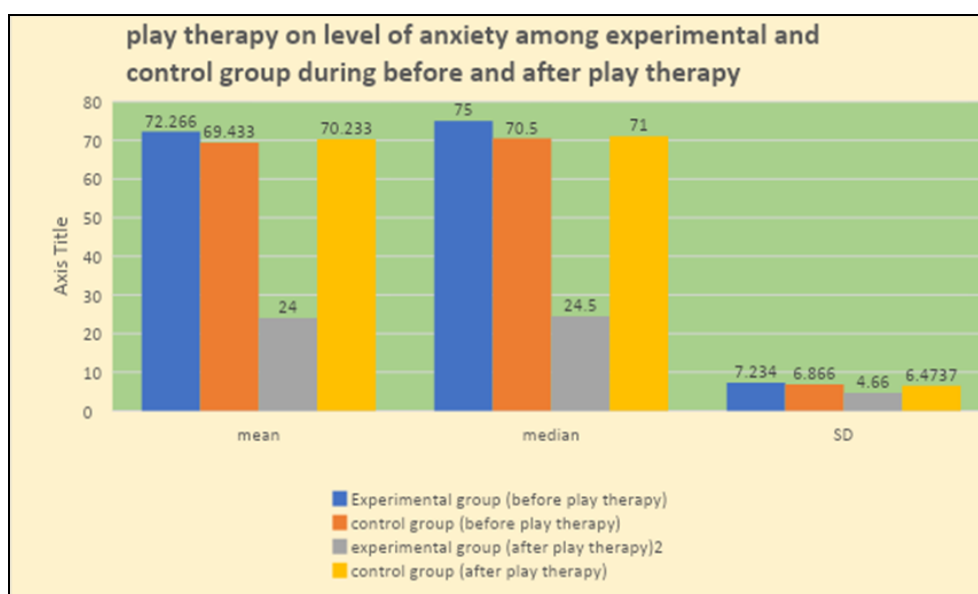
**Table 5.1:** Effectiveness of play therapy on level of anxiety among experimental and control group during before and after play therapy, N=60

Test	Group	Mean	Median	S.D	DF, P-Value	Unpaired t-test
Before	Experimental group	72.266	75	7.234	58	1.5558 <sup>NS</sup>
	Control group	69.433	70.5	6.866	0.1252	
After	Experimental group	24	24.5	4.660	58	31.7491*
	Control group	70.233	71	6.473	0.0001	

NS: Non-significant, \*Significant at  $p < 0.05$  level

Above given table shows that there was significant difference in mean of anxiety level among experimental and control group after play therapy when calculated by

unpaired 't' test. Hence it accepts the hypothesis ( $H_2$ ) which states that there will be a significant difference on level of anxiety between experimental and control group.



**Fig 5:** Effectiveness of play therapy on level of anxiety among experimental and control group during before and after play therapy



## Section-IV

**Table 6:** Association of Anxiety with selected socio-demographic variables before play therapy, N=60

S. No	Socio-demographic variables	level of anxiety			X <sup>2</sup> , DF, P-Value
		Mild	Moderate	Severe	
1.	<b>Age</b>				1.1784,1, 0.277 <sup>NS</sup>
	6-8	0	11	26	
	9-12	0	10	13	
2.	<b>Gender</b>				2.584,1, 0.108 <sup>NS</sup>
	Boy	0	8	15	
	Girl	0	14	23	
3.	<b>Education status of children</b>				0.0205,1 0.886 <sup>NS</sup>
	1 <sup>st</sup> - 3 <sup>rd</sup> standard	0	18	20	
	4 <sup>th</sup> - 7 <sup>th</sup> standard	0	10	12	
4.	<b>Type of Family</b>				0.6287,1 0.427 <sup>NS</sup>
	Nuclear	0	11	15	
	Joint	0	11	23	
5.	<b>Monthly family income (in Rupees)</b>				1.3765,3, 0.009*
	≤ 10,000	0	2	16	
	10,001-20,000	0	7	6	
	20,001- 30,000	0	13	10	
	≥ 30,000	0	1	5	
6.	<b>Type of residence</b>				0.629,1, 0.428 <sup>NS</sup>
	Urban	0	15	11	
	Rural	0	23	11	
7.	<b>Length of hospital stay</b>				23.2156,3, 0.0001*
	1-5 days	0	17	1	
	6-10 days	0	6	7	
	11-15 days	0	13	5	
	15 <sup>th</sup> and above	0	1	10	

NS= Non-significant, \*Significant at  $p < 0.05$  level

Above given table shows that there was significant association before play therapy on level of anxiety among hospitalized child. Hence hypothesis ( $H_3$ ) is accepted for socio-demographic variable such as Monthly family income (in Rupees) and Length of hospital stay and rejected for rest of the demographic variables.

**Conclusion**

Anxiety is among the most common feelings that children in hospitals experience. It has a negative impact on both the length of the hospital stay and the standard of nursing care. Play therapy helps reduce the nervousness of a hospitalized youngster. The results of the study showed that providing play therapy to school-age children in hospitals was effective in reducing their anxiety levels. Play therapy is one of the best non pharmacological and most affordable treatments available for hospitalized children.

**Conflict of Interest**

Not available

**Financial Support**

Not available

**References**

- Davidson B, Satchi NS, Venkatesan L. Effectiveness of play therapy upon anxiety among hospitalized children. *Int J Adv Res Ideas Innov Technol.* 2017;3(5):441-4.
- Patel K, Suresh V, Ravindra H. A study to assess the effectiveness of play therapy on anxiety among hospitalized children. *IOSR J Nurs Health Sci.* 2014;3(5):17-23.
- More R. Effectiveness of play therapy on anxiety among hospitalized children at selected hospitals. *Int J Sci Res.* 2019;8(2):18026.
- Naregal MP, Prabhuswami M. Effectiveness of play therapy in reducing stress among hospitalized children (6-12 years) undergoing surgery in selected hospitals Maharashtra. *Educ.* 2016;6:20-00.
- Dhara M, Vyas Y, Mikin J, Bhargavi T, Dhara B, Hetvi C, et al. Effectiveness of therapeutic play on the level of anxiety among hospitalized children between 3-6 years. *Int J Sci Res.* 2023;27:70.
- Mathivadhani R. A study to evaluate the effectiveness of play therapy in reducing the level of anxiety among hospitalized children at the age group of 6-12 years at selected hospitals in Dindigul district [dissertation]. Dindigul: Sakthi College of Nursing; c2021.
- Salsabila P, Anggraini IR, Alifatin A, Aini N. Play therapy to reduce anxiety in children during hospitalization: A literature review. *KnE Med.* 2022 Sep 15:765-73.
- Malathi A. Effectiveness of therapeutic play on the level of anxiety among hospitalized children between 3-6 years [dissertation]. Chennai: Madha College of Nursing; c2021.
- Bibin Raj S. A study to assess the effectiveness of art therapy on anxiety level among hospitalized children in selected hospital, Chennai [dissertation]. Chennai: Venkateswara Nursing College; c2021.

10. Akanksha. Effectiveness of art therapy on level of anxiety among hospitalized children. Int J Sci Res. 2023;12(5):1-5.

**How to Cite This Article**

Majid S, Kumari H. A quasi-experimental study to evaluate the effectiveness of play therapy in reducing the level of anxiety among hospitalized children in Shri Maharaja Gulab Singh (SMGS) Hospital, Jammu. International Journal of Research in Paediatric Nursing. 2024;6(2):141-147.

**Creative Commons (CC) License**

This is an open-access journal, and articles are distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 International (CC BY-NC-SA 4.0) License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.