Enrichment Of Therapeutic Play Therapy Regarding Anxiety Disorders on The Reduction of Separation Anxiety Among Mothers of Under-Five Hospitalised Children from Selected Private Hospitals of Mumbai.

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ABSTRACT

Background: Hospitalization and illness constitute a traumatic experience for young children, leading to fear & anxiety. This is primarily due to several contributing factors such as the unfamiliar hospital environment, separation from parents, interactions with unfamiliar medical staff, and invasive/non-invasive medical procedures. Children's reactions are commonly manifested through protest, despair, denial and withdrawal. As a result, they may experience significant emotional distress and demonstrate an inadequate ability to cope up with the hospital experience. **Aim of the study:** The study aimed to evaluate the effectiveness of play therapy in reducing separation anxiety among under-five hospitalized children. **Objectives of the study:** 1] To assess the level of separation anxiety among the mothers of under-five hospitalised children by administering pre-tests in both experimental and control groups.2] To assess the knowledge levels of mothers on separation anxiety in both the experimental and control groups.3]To determine the effectiveness of therapeutic play therapy in the experimental group among the mothers of under-five hospitalised children..4] To find out the association between the pre-test and post-test scores of separation anxiety among the mothers of hospitalized children, with their selected socio-demographic variables in the experimental and control group. **Materials and Methods:** Research Approach**:** The research approach used for the study was quantitative evaluative**.** Research Design**:** A quasi-experimental research design with pre-test and post-test control group was adopted for the study. The study was conducted in the paediatric ward of Holy Family Hospital, Andheri west, Bandra, Mumbai, Maharashtra. Sampling techniques included non-probability sampling methods such as purposive sampling. Data were collected using a structured questionnaire of Separation Anxiety Rating Scale (SARS) by modifying the Hamilton anxiety rating scale. The samples were divided into the experimental group (30) and 30 in the control groups. **Results:** The findings of the study revealed that the mean pre-test higher 74.93, (SD 25.09) than the mean post-test score was 52.60, (SD = 10.7). The mean difference between pre-test and post-test scores in the experimental group was 22.33 (SD =18.77).

The reduction in post-test scores was statistically significant (p < 0.001) as determined by the paired 't' test, indicating the effectiveness of therapeutic play intervention. The Chi-square test showed a significant association between separation anxiety and play activity of the child (x^2 =12.714, P=.013). There was no statistically significant association (p> 0.05) between separation anxiety and other demographic variables as tested by Chi-square test at 5% level of significance. The obtained 't' value 6.515 statistically was significant at 0.000 level. Hence, the research hypotheses were accepted. In comparison of the mean post-test scores of the experimental and control group's post-test, the obtained 't' value of 4.524, also statistically significant at the 0.000 level. Therefore, the research hypotheses were accepted, showing significant reduction in the level of separation anxiety of experimental group.

Conclusion: The study findings concluded that therapeutic play intervention had an impact in reducing separation anxiety among hospitalized under-five children. The role of "nurse's "is vital in implementing and supporting play therapy to manage separation anxiety in these young children when hospitalized.

Key words: Enrichment, Therapeutic play therapy, separation anxiety

1.**Introduction:**

Play is a pleasurable activity of the child which leads to the cognitive and creative development and explores an expression of the child's feelings. Play enhances the children their coping strategies towards the hospital procedures and the stay in the hospital. The child's growth is essential to foster through different play toys as per the age of the child. Hospitalization and illness of the child causes anxiety, fear, upset, in child's mind. The young children naturally adopt the ways of expressing feelings through the play activity. Play is a vital to foster a child's growth. It enhances the children in the relaxation by releasing anxiousness. Play always in children to cope up with the newer environment or staff. Play therapy is an important intervention in reducing anxiety play activity that helps children from stress to destress of life's activity. Play reduces the experience of anxiety in children. It promotes in expression of emotions in return children overcome their fear. For children home away in a new environment like hospitalization causes tension and stressful experiences in all ages of children. Even the older children feel the need of the parents with them. The play materials/tools which are selected has to be suitable according to the age appropriateness. Hospitalization results in affecting the stress by having impact over their emotional, cognitive, behavioural, physical, physiological changes. Play is a healing process that can refresh, rejuvenate, refresh a creative mind. Children experience comfort when engaged in play.

2.Need of the study

Separation anxiety can be defined as an emotional stress or persistent feeling of constant worry in a child being separated from an attached parent & other family member. The infants cling to the caregivers

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is a natural phenomenon. The child when separated from their mothers shows clinging tightly, crying excessively, withdrawing, and frowning. These young children tolerate a short duration of parent's absenteeism but not a prolonged period. In the present scenario, there are different forms of anxiety-related problems all over the world. Children are unaware that encountering unbearable events causes tension, and anxiety in daily life. Research highlights that the occurrence of separation anxiety in childhood impairs with social relationships with peers and others, resulting in social isolation. For example, marital life may be impaired by unmarried life, clinging behaviour, and lack of association with people that may affect the family and social functions of an individual.

3. Statement of problem

Enrichment of therapeutic play therapy regarding anxiety disorders on the reduction of separation anxiety among mothers of under-five hospitalised children from selected private hospitals of Mumbai.

1.1. Objectives of the study:

1] To assess the level of separation anxiety among the mothers of under-five hospitalised children by implementing therapeutic play therapy for the children, by administering pre-tests in both experimental and control groups.

2] To assess the knowledge levels of mothers on separation anxiety in both the experimental and control groups among the mothers of under-five hospitalised children.

3] To determine the effectiveness of therapeutic play therapy in the experimental group among the mothers of under-five hospitalised children from selected private hospitals of Mumbai after the pre-test.

5] To find out the association between the pre-test and post-test scores of separation anxiety among the mothers of under-five hospitalised children from selected private hospitals of Mumbai with their selected socio-demographic variables in the experimental and control group.

4.Hypothesis

All hypotheses will be tested at the 0.05 level of statistical significance.

H_1: There will be a significant difference between the pre-test and post-test scores of separation anxiety among the mothers of under-five hospitalized children in the experimental and control groups.

H_2: There will be a significant association between the separation anxiety scores and selected socio-demographic variables of mothers of under-five hospitalized children from selected private hospitals in Mumbai.

5.Research Methodology:

Research Approach: Quantitative evaluative research approach was used in this study.

Research Design: A quasi-experimental research design with a pre-test and post-test was used.

Setting of the Study: The study was conducted in the paediatric ward of Holy Family Hospital, Andheri west, Bandra, Mumbai.

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Population: In this study, the population consists of mothers and their under-five hospitalized children.

Targeted population: This study population comprises mothers and their under-five hospitalized children.

Accessible population: In this study, the accessible population consists of mothers and their under-five hospitalized children from the selected private hospitals of Mumbai.

Sample: The sample for the present study consisted of 60 under-five hospitalized children (30 in experimental group and (30) in control group), those who fulfilled the criteria of inclusion and exclusion criteria.

Sampling Technique: The **non-probability methods of purposive sampling technique** was chosen for the study as it includes the under-five hospitalized children to assess their separation anxiety.

Nursing Theory: Roy's Adaptation Theory is chosen in which children adopt the external environment

6.Development of Tools for Data Collection:

The data collection tools consisted of four parts: -

Section 1: - Socio-demographic profile of hospitalized Under-five children and their parents.

Section 2: - A structured **Separation Anxiety Rating Scale (SARS)** was developed based on the Hamilton Scale, consisting of 25 items covering various domains of separation anxiety, as well as 25 items to assess the mother's perceptions of their child's anxiety.

Section 3: - This section measured the perception of mothers regarding separation anxiety experienced by their under-dive hospitalized children during hospitalization in a paediatric ward using **Separation Anxiety Rating Scale (SARS).**

Section 4: - A knowledge level questionnaire for mothers regarding separation anxiety among hospitalized Under-five children.

6.V**alidity and Reliability:** Content validity of the tool was established by a panel of 15 subject experts, (10 nursing faculty and 5 expert's paediatric physicians). Reliability of the tool was assessed using Cronbach's Alpha, and was found to be 0.997, indicating an excellent level of internal consistency.

7.Method of Data Collection:

Prior to the data collection, ethical clearance was obtained from institutional ethical committee, formal permission was obtained from concerned authority also permission obtained from mothers of under-five hospitalized children.

Procedure: The pre-test was administered to both control and experimental groups on Day 1 of hospitalization, which was conducted on September 5th 2024 by using structured **Separation Anxiety Rating Scale** (SARS). The intervention group received structured play therapy sessions on the third day whereas the control group received standard care. A post-test was conducted after the intervention period to evaluate the effectiveness of play therapy.

8.Data analysis:

The data obtained was analysed in terms of the objective of the study using descriptive and inferential statistics. The data was organized in the following:

1.**Organization of data**

2.**Tabulation of data** organized in terms of frequency, percentage, mean, standard deviation and range to describe the data.

3.Classification of **Separation Anxiety Rating Score (SARS)** as follows:

1. No separation anxiety (0-25)
2. Mild separation anxiety (26-50)
3. Moderate separation anxiety (51-75)
4. Severe separation anxiety (76-100)
5. Very severe separation anxiety (101-125)

4.**Inferential statistics** were used to test the effectiveness of play therapy. The Chi-square test was used to find the association between the level of separation anxiety and demographic variables and the One-way ANOVA test was used to compare the mean scores (Pre-test and Post-test scores in the experimental group).

9.RESULTS.

The results were computed using descriptive and inferential statistics based on hypotheses and the objectives of the study.

Section A: Distribution of Under-five children according to socio-demographic variables

Table 1: Distribution of Under-five children According to Socio-Demographic Variables.

S.no	Demographic Variable	Categories	Experimental Group (n = 30), (%)		Control-Group (n =30), (%)	
			Frequency(n)	%	Frequency(n)	%
1.	Age of the mother	<20 years	0	0	1	3.3
		20 – 30 years.	15	50	19	63.3
		30-40 years	14	46.7	9	30
		40 years and above	1	3.3	1	3.3
2.	The educational status of the mother	No formal education	1	3.3	0	0
		Primary education (1-5th Std)	1	3,3	3	10
		Middle education 6th-8th Std)	1	3,3	1	3.3

		High School Education (9th-10th Std)	7	23.3	4	13.3
		Higher Secondary Education (11th -12th Std)	8	26.7	12	40
		Graduates and above	12	40	10	33.3
3.	Occupation of the mother	Housewife	18	60	20	66
		labourer	7	23.3	5	16.7
		Private job	4	13.3	3	10
		Government job	1	3.3	2	6.7
		Contract Job	0	0	0	0
		Any other (Please specify)	0	0	0	0
4.	The Educational Status of the Father	No formal education	1	3.3	0	0
		Primary Education (1st-5th Std)	1	3.3	2	6.7
		Middle Education (6-8th Std)	2	6.7	1	3.3
		High School Education (9th-10th	4	13.3	2	6.7
		Higher Secondary Education (11	12	40	16	53.3
		Graduates and above	10	33.3	9	30
5.	The Occupation of the Father	labourer	4	13.3	1	3.3
		Farmer	1	3.3	0	0
		Private job	19	63.3	21	70
		Government job	3	10	1	3.3
		Contract job	3	10	5	16.7
		Any other (Please specify)	0	0	2	6.7
6.	Type of the family	Nuclear family	16	53.3	5	16.7
		Joint family	12	40	19	63.3
		Three-Generation family	2	6.7	6	20
		Extended family	0	0	0	0.0
7.	Type of residence	Urban	22	73.3	25	83.3
		Rural	8	26.7	5	16.7

8.	The socioeconomic status of the family	Upper class (Rs.70.015 and above	5	16.7	1	3.3
		Upper middle class (35,008 to 70,014/per/month)	6	20	4	13.3
		Lower middle class (Rs,17,504 -35,007/per month	5	16.7	7	23.3
		Upper lower class (Rs.10,502-17,505/per month)	10	33.3	14	46.7
		Lower class (Rs.10,501/per month)	4	13.3	4	13.3
9.	Gender of the child	Male	16	53.3	15	50
		Female	14	46.7	15	50
10.	Age of the child	Infant (0-12 months)	7	23.3	7	23.3
		Toddler (1-3 years)	13	43.3	10	33.3
		Preschooler (3-5 years)	10	33.3	13	43.3
11.	Birth order of the child	First	11	36.7	8	26.7
		Second	9	30	15	50
		Third	9	30	7	23.3
		fourth &above	1	3.3	0	0
12.	The educational status of the child.	Nursery	3	10	6	20
		L.K.G	4	13.3	10	33.3
		U.K.G	2	6.7	1	3.3
		Not enrolled	21	70	13	43.3
13.	Duration of current hospitalization.	1 day	6	20	8	26.7
		2 days	9	30	2	6.7
		3 days	9	30	9	30
		4-5 days and above	6	20	11	36.7
14.	History of the previous hospitalization.	1 day	2	6.7	4	13.3
		2 days	3	10	1	3.3
		3 days	3	10	9	30
		4 days and above	10	33.3	13	43.3
		Not admitted at all	12	40	3	10

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15.	The severity of illness in a child	Acute (Less than 5 days)	22	73.3	22	73.3
		Chronic (More than 6 days and above	8	26.7	8	26.7
16.	The presence of the primary caregiver in the hospital	Mother	23	76.7	28	93.3
		Father	5	16.7	1	3.3
		Grandparents	2	6.7	1	3.3
		Any Other (Please specify	0	0	0	0
17.	Type of management	Medical	21	70	16	53.3
		Surgical	9	30	14	46.7
18.	Type of treatment	Invasive	19	63.3	12	40
		Non-invasive	11	36.7	18	60
19.	Levels of pain	No Pain	0	0	0	0
		Mild Pian	1	3.3	2	6.7
		Moderate Pain	11	36.7	12	40
		Severe Pain	18	60	16	53.3
20.	Type of admission	Planned admission	7	23.3	13	43.3
		Emergency admission	23	76.7	17	56.7
21.	The Play activity of the child in the hospital	Puzzles / Push and pull toys /building blocks	14	46.7	13	43.3
		Soft & sound toys / rocking toys	5	16.7	4	13.3
		Mobile video and games	1	3.3	5	16.7
		Drawing Activity	2	6.7	3	10
		Not playing	8	26.7	5	16.7
22.	The visiting policy of children in the hospital	Restricted hours (1-6 hours)	20	66.7	13	43.3
		Open (1 -3 hours)	10	33.3	17	56.7

The data presented in Table 1 depicts the following:

❖ Regarding age of the mother, in the experimental group, the majority 15 (50%) of mothers were in the age group of 20-30 years, and none (0%) of the mothers were in the age group of less than 20 years. In the control group, the majority 19 (63.3%) of mothers in the age group of 20

-30 years, while 1 (3.3%) mother was aged less 20 years and 1 (3.3%) was aged 40 years and above.

❖ With regard to the education of mothers, in the experimental group, the majority 12(40 %) of mothers had completed graduation and a small proportion1(3.3%) had no formal education,1(3.3%) had completed only primary or middle education. In the control group the majority 12(40%) of mothers have completed higher secondary education and none (0%) had no formal education.

❖ In relation to occupation, in experimental group the majority 18 (60 %) of mothers were house wives and 1 (3.3%) were employed in government jobs. In control group, 20 (66%) were housewives and 2 (6.7%) mothers were employed in government jobs.

❖ Regarding education of fathers, in the experimental group, the majority12 **(**40%) of fathers had completed higher education and 1 (3.3%) had no formal education. In the control group 16 (53.3%) completed higher education and none (0%) had no formal education.

❖ With regard to the occupation of father the majority 19 (63.3%), of children's fathers in the experimental group were employed in private jobs while 1(3.3%) were farmers. In the control group, the majority of fathers 21(70 %)) were engaged in private jobs and none (0%) were farmers.

❖ Regarding type of the family, in the experimental group, majority 16 (53.3%) of children were from nuclear families and none (0%) of the children from extended families, while in the control group 19 (63.3%) were from joint families, and none (0 %) of the children were from extended families.

❖ Regarding place of residence, in the experimental group the majority 25 (73.3%) of participants resided in urban and 8 (26.7%) participants were from rural areas, while in the control group, the majority 25 (83.3%) resided in urban residence and 5 (16.7%). were from rural areas.

❖ In relation to the socio-economic status of the family. in the experimental group, majority 10 (33.3%) of population were upper lower class and 4 (13,3%) from lower class, while in control group, majority of population 14 (46.7) from upper lower class and 4 (13.3%) from upper middle class, as well 4 (13.3%) were from lower class.

❖ In relation to the gender, the majority 16 (53.3%) of children in the experimental group were male and female 14 (46.7%), while in the control group majority of male children 15 (50%), and female15 (50%)

❖ With regard to age of the children, In the experimental group majority 13 (43.3%), of children were toddlers and infants were 7 (23.3%), while in the control group, majority of children were pre-schoolers 13 (43.3%), and infants were 7 (23.3%),

- ❖ Regarding birth order of children, In the experimental group majority 11(36.7%), of children were from 'First 'birth order' and 1(3.3%) child were from fourth and above, while in the control group the majority were 'second' 15 (50%), and none of the children (0%) fourth and above.

- ❖ With regard to the education of the children, the majority 21 (70%) of children in experimental group were not enrolled and 2 (6.7%), were studying in U.K.G, while in the control group the majority,13 (43.3%) of children were not enrolled and 1 (3.3%) child studying in U.K.G.

- ❖ With regard to the current hospitalization, in the experimental group. The majority 9 (30%) of children's current hospitalization duration was 2 days and 1 day hospitalization 6 (20%), and 4-5 days and above 6 (20%), while in control group the majority 11 (36.7%) of children were hospitalized for 4-5 days and above and 2 (6.7%) belong to 2 days of hospitalization.

- ❖ In relation to history of previous hospitalization, the majority 12 (40%) of children in the experimental group were not admitted at all, and 1day of previous hospitalization was 2 (6.7%), while in the control group 4 days and above 13 (43.3%) got admitted previously and 1 (3.3%) 2 days of previous hospitalization.

- ❖ With regard to severity of illness.in the experimental group majority 22 (73.3%) of children had acute illness and chronic illness 8 (26.7%), while in the control group acute illness 22 (73.3%) and 8 (26.7) % had chronic illness.

- ❖ Regarding mother's presence, the majority of 23 (76.7%) population in the experimental group were mothers and 2 (6.7%) were grandparents, while in the control group the majority 28 (93.3%) were mothers and 1 (3.3%) were father present in the hospital.

- ❖ In relation to the type of management, the majority 21(70%) of children in the experimental group were medically managed and surgical management 9 (30%), while in the control group majority 16 (53.3%), were managed medically and 14 (46.7%) were surgically managed.

- ❖ With regard to type of treatment, in the experimental group the majority 19 (63.3%) of the participants had invasive treatment, and 11 (36.7%) of the participants had non-invasive treatment, while in the control group, the majority 18 (60%) of the participants had non – invasive and 12 (40%) of the participants had invasive treatment.

- ❖ Regarding levels of pain, in the experimental group, the majority 18 (60%) of the participants had severe pain and none (0%) of the participants had no pain, while in the control group, the majority 16 (53%) of participants had severe pain and none (0%) of the participants had no pain,

- ❖ In relation to type of admission, the majority 23 (76.7%) of population were admitted on emergency admission, and 7 (23.3%) of the participants were admitted on a planned admission,

while in the control group, majority 17 (56.7%) of the participants were on emergency admission and 13 (43,3%) of the participants were on a planned admission.

❖ With regard to the play activity of child, in the experimental group, majority 14 (46.7%), of children played with puzzles, push pull toys and building blocks, 1 (3.3%) of the children played mobile video and games, while in the control group the majority 13(43.3%) of the children played puzzles, push pull toys and building blocks and 3 (10%) of the participants played drawing activity.

❖ In relation to the visiting policy the majority 20 (66.7%) of children in the experimental group had restricted hours and 10 (33.3%) had open hours of visiting, while in the control group the majority 17 (56.7%) open hours and 13 (43.3 %) of the participants had restricted hours.

Section B: A comparative levels of separation anxiety among Under-Five hospitalized children before and after the administration of play therapy in the Experimental Group.

Table: 2 Comparison of Pre-Test and Post-Test scores in the Experimental Group (n =30)

	Experimental group Pre-test score interpretation		Experimental group Post-test score interpretation	
	Frequency(n)	**Percentage (%)**	**Frequency(n)**	**Percentage (%)**
No separation anxiety	3	10.0	11	36.66
Mild separation anxiety	2	6.66	9	30.0
Moderate separation anxiety	5	16.66	5	16.66
Severe separation anxiety	8	26.66	3	10.0
Very severe separation anxiety.	12	40.00	2	6.66
Total Valid	**n=30**	**100.0**	**n=30**	**100.0**

The comparison indicates that post-test levels of separation anxiety were lower than the pre-test levels in the experimental group.

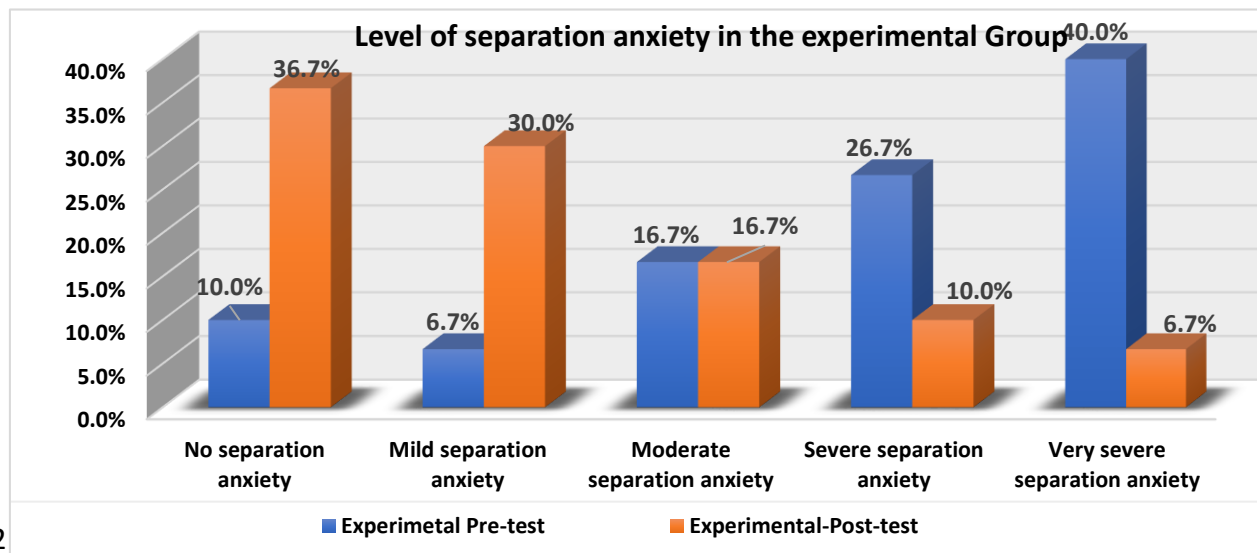Level of separation anxiety in the experimental Group

Fig 1: 3-D Bar diagram showing pre-test and post-test separation anxiety level in experimental group.

The above table 2 and graph depicts separation anxiety levels among Under-five hospitalized children. In the pre-test scores, that the majority 12 (40%) of Under-five hospitalized children had experienced very severe separation anxiety,8 (26.66%) had severe separation anxiety levels,5 (16.66%) had moderate separation anxiety levels, only 3 (10 %) had no separation anxiety, and 2 (6.66%) had mild separation anxiety, whereas after the play therapy the majority 11 (36.66%) of the participants had no separation anxiety levels,9 (30%) had mild separation anxiety,5 (16.66%) had moderate separation anxiety,3 (10%) had severe separation anxiety levels and only 2 (6.66%) had very severe separation anxiety levels.

Table 3: Score interpretation of pre-test score and post-test score of control group   (n=30)

	Control group pre-test score interpretation		Control group pre-test score interpretation	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
No separation anxiety	2	6.66	3	10
Mild separation anxiety	3	10	2	6.66
Moderate separation anxiety	4	13.33	5	16.66
Severe separation anxiety	9	30	7	23.33
Very severe separation anxiety	12	40	13	43.33
Total valid	**n=30**	**100.0**	**n =30**	**100.0**

Pre and post-test reveal that in post-test separation anxiety was not reduced without play intervention in the control group.

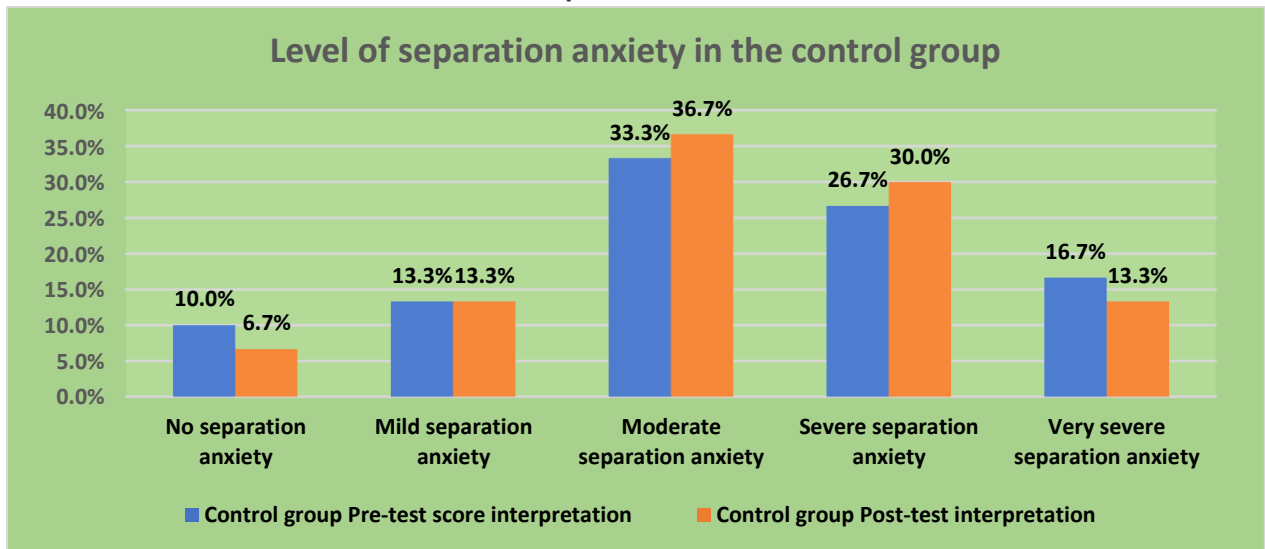**Level of separation anxiety in the control group**

Fig 2: Bar diagram showing pre-test and post-test score interpretation of control group

The above table 3 and figure 2 depicts of separation anxiety levels among under-five hospitalized children, the majority 12 (40%) had very severe separation anxiety levels,9 (30%) had severe separation anxiety levels,4 (13.33%) had moderate separation anxiety levels,3 (10%) had mild separation anxiety levels,2 (6.6%) had no separation anxiety levels, whereas the participants in the post-test scores revealed that the majority of the participants 13 (43.33%) had very severe separation anxiety,7 (23.33%) had severe separation anxiety levels,5 (16.66%) had moderate separation anxiety levels,3 (10%) had no separation anxiety levels and 2 (6.66%) had mild separation anxiety levels.

Section C: Analysis of observational Score on effectiveness of Play Therapy on Separation Anxiety among Under-five hospitalized Children.

Table 4: Analysis of observational Scores in the experimental group

Group	Min	Max	Mean ($\bar{x}$)	(SD)	Mean. differ	d.f	't'value	p-value	Significance
Experimental group Pre-test	34	118	74.9333	25.09146		29	6.515	0.000	Significant
Experimental group Post-test	30	68.00	52.6000	10.07078	22.3333				

The obtained **'t' value 6.515** statistically was significant at 0.000 level. So, the research hypothesis was accepted. Since the p-value is less than 0.05 (p < 0.001), we **reject the null hypothesis** and conclude

that **play therapy had a significant impact on reducing separation anxiety** in hospitalized children. This indicates **that play therapy intervention was effective** in alleviating anxiety symptoms. These findings support the integration of play therapy into paediatric hospital settings to enhance the emotional well-being of young children during hospitalization.

Paired 't'test was showed between experimental pre-test and post-test scores a statistical significance of reduction in separation anxiety among Under-five hospitalized children. (t 6.515, df 29, p< 0.001). The Pearson Correlation was significant at 0.01 level (2 tailed).In the Control group, Pearson correlation was used to assess the relationship between the pre-test and post-test scores showed a strong positive correlation between control group pre-test and post-test scores. (r = 0.004, p = 0.000), which is statistically significant at the 0.01 level. This indicates the children who had higher pre-test scores also intended to have higher post-test scores without play intervention. A paired 't'test was conducted which showed not significant. (t .195, df 29, p=.847).Anova test was conducted and revealed not significant between groups and within groups. (F = 1.952, df 23, p < 0.236). Both the groups statistically similar.

Section D: Analysis of observational Scores in the Control Group.

Table 4: Analysis of observational Scores in the Control group

Group	Minimum score	Maximum score	Mean (x̄)	Mean difference	(SD)	d.f	't' value	'p' value	Significance
Control group Pre-test	34	118	75.2000	0.10	24.47152	29	0.195	0.847	Not Significant
Control group – Post-test	37	119	75.1000		23.36421				

The obtained **'t' value 0.195, p = 0.847** was not statistically significant at 0.05 level. Therefore, the research hypothesis was rejected. Since the p-value is greater than 0.05 (p < 0.001), we **accept the null hypothesis** and conclude that in the control group, the absence of **play therapy did not reduce separation anxiety** in hospitalized children.

Table 5: Comparison of mean score of experimental post-test and control-post-test.

Group	't' test	'p' value	df	Mean difference	Significance (p < 0.05)
Experimental Pre-test and post-test scores	6.515	0.000	29	22.3333	Significant
Control group Pre-test and Post-test scores	0.195	0.847	29	0.10	Not significant

The experimental group showed a statistically significant reduction in separation anxiety following the play therapy intervention. (t = 6.515, p < 0.001), whereas the control group showed no significant changes (t = 0.195, p = 0. 847.This suggest that, in the absence of play therapy, separation anxiety remained unchanged.

Section 3: - The assessment of perceptions of mothers on the levels of separation anxiety among Under-five hospitalized children, after the play intervention in the experimental group.

Table 6:

Group	Minimum Score	Maximum Score	Mean	Standard Deviation
Interpretation of mother's perceptions in the experimental Group	30	61	42.1667	SD = 6.97327

The table above demonstrates the perceptions of mothers on separation anxiety levels mean was 42.1667, SD was 6.97327, and the obtained minimum score was 30 and maximum was 61, that showed a statistical significance level, suggesting that play intervention was very effective in reducing separation anxiety.

Table-7: Comparison of separation anxiety scores between Experimental and Control Groups among hospitalized children.

Pair-Group	Mean difference	't' Value	df	P – Value	Inference
Pair1: Experimental pre-test vs. Experimental Post-test	**22.3333**	**6.515**	**29**	**0.000**	**Significant**
Pair2: Control-Pre-test vs. Control – Post-test	**0.1000**	**0.195**	**29**	**0.847**	**Not Significant**

The table above compares the experimental pre-test and post-test scores which demonstrate the effectiveness of play therapy in reducing separation anxiety levels among hospitalized under-five children. The obtained 't' value was 6.515 at the df 29 and the mean difference was 0.1000 with the level of significance chosen at 0.05 level of implication. Hence 'the p-value is 0.000 found to be significant. It supports the effectiveness of play therapy in reducing separation anxiety levels in under-five hospitalized children.

In contrast in pair 2, the control group's pre-test and post-test, the scores demonstrate homogeneity with a mean difference of 0.1000, t – t-value was 0.195, at df 29, p-value 0.847 which reveals statistically not significant. The children's separation anxiety remained the same with the standard routine care.

Table 8: Distribution of **Knowledge Scores of Mothers** on Separation Anxiety of Under-Five Hospitalized Children in the **Experimental Group:**

	Control group pre-test scores knowledge levels interpretation.		Control group post-test scores knowledge levels interpretation	
	Frequency (N)	Percentage %	Frequency (N)	Percentage %
Inadequate	10	33.3	11	36.7
Moderate	11	36.7	12	40.0
Adequate	9	30.0	7	23.3
Valid (n=30)	**30**	**100.0**	**30**	**100.0**

The above table 6 presents the distribution of knowledge scores of mothers in the experimental group regarding separation anxiety in under-five hospitalized children. A total of 30 mothers assessed 10 (33.3%) had inadequate knowledge while 11 (36.7%) demonstrated a moderate level of knowledge. A smaller proportion,9 mothers (30.0%), exhibited adequate knowledge.

The findings indicate that a substantial number of mothers had limited awareness of separation anxiety in hospitalized children, with only 30% demonstrating adequate knowledge. This highlights the need for educational interventions to enhance mothers' knowledge of separation anxiety in children. The mothers' coping mechanisms may reduce the distress experienced by children and caregivers, and ultimately, the hospital experiences can improve the health and illness of children. The findings suggest awareness programs and counselling sessions to manage a child's distress effectively. Future suggestions could focus on structured educational programs, incorporating play therapy and the involvement of play in the hospital improve emotional well-being in hospitalized children

Table V: Distribution of **Mothers' Knowledge** Scores on Separation Anxiety of Under-Five Hospitalized Children in the **Control Group:**

Knowledge levels	Frequency (N)	Percentage (%)
Inadequate Knowledge	11	36.7
Moderate knowledge	12	40.0
Adequate Knowledge	7	23.3
Total (Control Group N= 30)	**30**	**100.0**

The findings in the table indicate that in the Control group, 11 (36.7%) of mothers had inadequate knowledge, while 12 (40.0%) had moderate knowledge. A smaller proportion, 7 (23.3%) demonstrated adequate knowledge.

These results suggest that a significant portion of mothers possess only moderate or inadequate knowledge about separation anxiety in hospitalized children. This suggests the need for educational interventions to enhance mothers' awareness and understanding of separation anxiety and its management.

Table 9: Association between Pre-test Separation Anxiety Scores with Selected Socio-Demographic variables of Mothers of Under-Five Hospitalized Children.

S. no	Socio-demographic variables	Chi-Square (x^2)	Degrees of freedom (df)	p-value	Inference
1.	Age of the mother	14.328	6	0.169	NS
2.	The education of the mother	26.862	15	0.327	NS
3.	The Occupation of the mother	7.567	9	0,578	NS
4.	The Education of the Father	16.993	15	0.319	NS
5.	The Occupation of the Father	13.937	12	0.305	NS
6.	Type of the family	4.899	6	0.557	NS

S. no	Socio-demographic variables	Chi-Square (x^2)	Degrees of freedom (df)	p-value	Inference
7.	Type of residence	7.937	3	0.492	NS
8.	The socioeconomic status of the family	23.017	12	0.991	NS
9.	Gender of the child	10.325	3	0.273	NS
10.	Age of the child	15.238	6	0.514	NS
11.	Birth order of the child	4.941	9	0.839	NS
12.	The educational status of the child.	5.548	9	0.784	NS
13.	Duration of current hospitalization.	17.197	9	0.987	NS
14.	History of the previous hospitalization.	15.011	12	0.241	NS
15.	The severity of illness in a child	8.739	3	0.711	NS
16.	The presence of the primary caregiver in the hospital	15.376	6	0.640	NS
17.	Type of management.	1.361	3	0.715	NS
18.	Type of treatment	0.738	3	0.864	NS
19.	Levels of pain	8.149	6	0.227	NS
20.	Type of admission	1.983	3	0.576	NS
21.	The Play activity of the child in the hospital	25.982	12	0.192	NS
22.	Visiting policies for children in the hospital.	4.071	3	0.254	NS

Table 10: Association between Post-test **S**eparation Anxiety Scores with Selected Socio-Demographic variables of Mothers of Under-Five Hospitalized Children.

S. no	Socio-demographic variables	Chi-Square (x^2)	df	Critical value ($p < 0.05$)	p-value	Significance
1.	Age of the mother	7.039	2	5.99	0.334	S
2.	The education of the mother	15.137	5	11.07	0.399	S
3.	The Occupation of the mother	3.838	3	7.82	0.279	NS
4.	The Education of the Father	4.952	5	11.07	0.422	NS
5.	The Occupation of the Father	4.861	4	9.49	0.302	NS
6.	Type of the family	0.215	2	5.99	0.898	NS
7.	Type of residence	3.937	1	3.84	0.954	S
8.	The socioeconomic status of the family	10.357	4	9.49	0.800	S
9.	Gender of the child	4.329	1	3.84	0.510	S
10.	Age of the child	6.024	2	5.99	0.187	S
11.	Birth order of the child	1.031	3	7.82	0.794	NS
12.	The educational status of the child.	1.651	3	7.82	0.648	NS
13.	Duration of current hospitalization.	9.034	3	7.82	0.902	S
14.	History of the previous hospitalization.	8.541	4	9.49	0.74	NS
15.	The severity of illness in a child	9.369	1	3.84	0.098	S
16.	The presence of the primary caregiver in the hospital	7.964	2	5.99	0.306	S
17.	Type of management.	3.616	1	3.84	0.057	S
18.	Type of treatment	0.578	1	3.84	0.447	NS
19.	Levels of pain	2.706	2	5.99	0.259	NS

S. no	Socio-demographic variables	Chi-Square (x^2)	df	Critical value ($p < 0.05$)	p-value	Significance
20.	Type of admission	0.151	1	3.84	0.698	NS
21.	The Play activity of the child in the hospital	12.714	4	9.49	0.013	S
22.	Visiting policies for children in the hospital.	1.148	1	3.84	0.284	NS

Above table 8 shows, association of post-test scores with the demographic variables. The chi-square test was performed to examine the association between post-test separation anxiety scores and selected socio-demographic variables. The results revealed a statistically significant association between separation anxiety scores and the following variables: age of the mother (x^2=7.039, df (2), p =.334), education of the mother (x^2=15.137,df (5), p=11.07), type of residence (x^2 =3.937, df (1), p = 0.954), socioeconomic status of the family (x^2 =10.357, (df) 4, p = 0.800),gender of the child (x^2 =4.329,df (1), p = 0.510),age of the child (x^2 = 6.024,df (2),p =0.187), current hospitalization (x^2 =9.034,df (3),p =0.902),severity of illness in a child (x2 = 9.369,df (1),p =0.098), presence of the primary caregiver (x^2 =7.964,df (2),p = 0.306),type of management (x^2=3.616,df (1),p= 0.057),play activity (x2 = 12.714,df (4),p =0.013) and not significant association between (p > 0.05) of separation anxiety scores with any other demographic variables as tested by chi-square test at 5% level of significance.

Discussion:

The present study was undertaken to assess the level of separation anxiety among hospitalized children in selected hospitals at Mumbai. This presents the major findings of this study.

- In the experimental group pre-test score was minimum 34 and maximum 118 mean 74.93 and SD was 25.09146 respectively.

- While in the control group post-test score was minimum34.and maximum 68 mean was 52.6, SD was 10.7078 respectively.

- The obtained 't' value 6.515 statistically significant at 0.000 level (,0.05) so research hypothesis was accepted. So, there was significant reduction in the level of separation anxiety among the Under-five hospitalized children in the experimental group.

- **H₁:** There is significant difference between the pre-test and post-test level of anxiety in experimental group. The pre-test and post-test anxiety levels were 74.93 and 52.60 respectively.

The mean difference was 22.33. The calculated 't' value 6.515 is greater than table value at degrees of freedom of 29, shows P-value 0.000 at 0.05 level. This indicates that there is significant change in separation anxiety levels of experimental group. The findings of the study suggest that there is significant reduction in separation anxiety among under-five hospitalized children in the experimental group after the play intervention of play therapy. Hence the research hypothesis H1 is accepted.

- **H₂:** There is a significant difference between the post-test level of separation anxiety among experimental and control group. Post-test experimental group and control group means were 74.93 and 52.60 respectively. The standard deviation for pre-test and post-test were 25.09146 and 10.07078 respectively. The mean difference was 15. 02068.The calculated 't'value is

- To evaluate the effectiveness of play therapy in reducing separation anxiety among under-five hospitalized children, **a paired 't' test was conducted to compare the pre-test and post-test scores of the experimental group.**

- The results indicate that **the mean post-test score was 52.60 (SD =10.07).** This reduction in mean scores suggests a decrease in separation anxiety levels after the intervention. The standard error of the mean was **4.58** for the pre-test and 1.84 for the post-test.

- **The paired 't' test** revealed a **statistically significant reduction** in separation anxiety following play therapy. The mean difference between the **experimental pre-test and post-test scores** was 22.33 (SD =18.78), with the standard error mean of 3.43. The t – **t-value was 6.515 (df = 29, p =0.000),** confirming a significant difference between the pre-test and post-test scores. The 95% confidence interval ranged from 15.32 to 29.34, further supporting the reliability of the observed difference.

- The One-way ANOVA revealed a statistically significant difference between the group means (F=7.328, p =.003). Therefore, the post-test scores after play intervention was significantly higher compared with the pre-test scores in the experimental group.

The results of the present study are consistent with the findings of Gurkiran Kaur (2017), who conducted a pre-experimental study to evaluate the effectiveness of play therapy in reducing anxiety among hospitalized children 6-12 years in Moga district, Punjab. Anxiety levels were assessed using a modified anxiety rating scale. Pre - test findings showed that 50 % of children experienced moderate anxiety and 50% experienced severe anxiety. Post-test results indicated that none of the children had severe anxiety and 60% showed no symptoms of anxiety. The maximum mean anxiety score was 33.7%. The findings suggest that play therapy was effective in reducing anxiety among hospitalized children.

Conclusion;

The findings of this study suggested that the majority of hospitalized children had experienced severe separation anxiety in the baseline assessment. The mean of the post-test score (**52.60), (SD =10.07).** .) less than the mean pre-test score (**74.9333), (SD =25.09146)** The study findings concluded that there is reduction in separation anxiety in hospitalized under-five children. Play therapy had an impact in reducing separation anxiety among hospitalized children.

The study findings concludes that a play intervention was an effective method for the reduction of separation anxiety among under-five hospitalized children. In the hospital, health care providers specially the nurses are the key personnel to include in their nursing care plans the play activity as per the age appropriateness. A play therapy allows children in their recovery phase as the research studies have been proved. Nurse educators should imply play intervention in curriculum and administrators can apply this intervention in paediatric ward as routine care. Parents can be also explained about the importance of play therapy.

Recommendations:

➢ Based on the findings of the study, similar research may be carried out on a larger sample to enhance generalizability of the results.

➢ A comparative study can be conducted to assess the effectiveness of therapeutic play therapy between rural and urban settings, private and government hospitals.

➢ Qualitative studies may be conducted to explore the attitudes, perceptions, practices of mothers regarding therapeutic play and its impact on parent-child bonding during hospitalization.

➢ A Structured teaching programme for mothers could be developed using computer -assisted instruction or self-instructional modules and video programme about play therapy and coping strategies to manage separation anxiety.

➢ A similar study can be conducted as a pre-experimental study one group pre-test and post-test design without a control group.

➢ A descriptive study can be conducted among fathers or other primary caregivers to assess their anxiety and coping levels during the hospitalization of children.

➢ Educational programmes and structured training modules may be developed for nurses and health care professionals to incorporate their skills in implementation of play therapy.

➢ A study can be conducted to explore the relationship between the duration of hospitalization and impact of play of therapeutic on the recovery of hospitalized children.

➢ Future studies can focus on the effectiveness of different types of play like dramatic play, puppet play and art therapy in reducing separation anxiety.

➢ A correlational study can be conducted to assess the association between separation anxiety of mothers and the level of bonding during hospitalization of children.

Therefore, therapeutic play therapy is an effective non-pharmacological intervention that enhances the expression of their emotional feelings of distress and helps in their speedy recovery of their illness.

Acknowledgement

Conflicts of interest

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