

# A study to assess the effectiveness of Art Therapy on the level of anxiety in the hospitalized school aged children of paediatric ward, Siddhartha Children and Women Hospital, Butwal, Nepal

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**Abstract:** Anxiety is one of the most common experiences of every hospitalized child; it adversely affects the course of hospital stay and affects the quality of nursing care as well. Art therapy is helpful to reduce the anxiety in the hospitalized child as it divert children's mind and provide recreation to them. As many child reduce anxiety level after the intervention of art therapy.

**Key Words:** Art Therapy, Anxiety, School aged children, Drawing and colouring.

## 1. INTRODUCTION:

Anxiety is one of the most common experiences of every hospitalized child; it adversely affects the course of hospital stay and affects the quality of nursing care as well. Art therapy is helpful to reduce the anxiety in the hospitalized child as it divert children's mind and provide recreation to them. As many child reduce anxiety level after the intervention of art therapy.

**Dionigi and Gremigni (2016)** Treatment process can cause considerable stress and anxiety that can have a profound effect on children. It is crucial for nurses to differentiate hospital anxiety levels in children and to identify those children who are most likely to exhibit high levels of anxiety when undergoing procedure before any intervention appropriate measure and reduce anxiety can be planned, provided and evaluated.

A sick child needs hospital care and it is a stressful experience for him, well the hospital environment and the related procedure make the feel child scary of even more Hospital care thus puts such emotional drawbacks on the child's regular life. The child is displaced from daily routine of home and brought into an unfamiliar setting causing loss of contact with siblings, peers and relatives.

Art therapy has become a recognized strategy for working successfully with diverse populations. Especially with clients who have difficulty expressing themselves verbally, art and drama therapy techniques offer exciting ways for therapists to make contact, connect, and begin a meaningful therapeutic dialogue.

## 2. LITERATURE REVIEW:

**Zeev.N.Kain, Alison.A, (2017)** conducted a randomized controlled trial on family-centred preparation for surgery Improves hospitalized Outcomes in Children. Children and their parents (n = 408) were randomly assigned to one of four groups: (1) control: received standard of care; (2) parental presence: received standard parental presence during induction of anaesthesia; (3) advance: received family centred behavioural preparation; and (4) oral midazolam. The authors assessed the effect of group assignment on preoperative anxiety levels and postoperative outcomes such as analgesic consumption and emergence delirium. Results indicated that Parents and children in the advance group exhibited significantly lower anxiety in the holding area as compared with all three other groups ( $34.4 \pm 16$  vs.  $39.7 \pm 15$ ;  $P = 0.007$ ) and were less anxious during induction of anaesthesia as compared with the control and parental presence groups ( $44.9 \pm 22$  vs.  $51.6 \pm 25$  and  $53.6 \pm 25$ , respectively;  $P = 0.006$ ).

**Decosimo CA, Hanson J(2019)** conducted study on 'Playing to live'. This paper reviews the efficacy of a community psychosocial arts program focused on building mental health capacity within post-Ebola Liberia. The aim of this paper was to evaluate the outcome effects of two groups using pre- and post-treatment data. We hypothesized that there would be a difference in symptoms pre- and post-treatment, and the longer program would yield more significant results. There were a total of 870 child participants. Of 40 sites, 24 were selected for a 5-month treatment (TG1) while the remaining 16 sites received 3 months of treatment (TG2). Paired t tests and a mixed-model analysis of variance (ANOVA) were used to analyse pre- and post-psychological stress symptoms (PSS) for samples from both groups.: Separately, treatment group 1 (TG1) and treatment group 2's (TG2) paired t test yielded significant results ( $p < 0.001$ ) for the decrease of PSS. The mixed-model ANOVA found that there were significant differences in total pre-

and post-test PSS and a significant difference in PSS means over time. Results indicated that there was a statistically significant decrease in reported symptoms in both treatment groups pre- to post-intervention and a significant difference in total symptoms over time. However, the findings do not indicate that the longer programming was statistically different compared to the shorter programming. The study presented had gaps in data, largely due to limits in research during the crisis. However, this paper provides a unique case study for challenges that can be faced for project evaluation in emergency settings

### 3. METHOD:

The nature of the study was pre experimental. The study was conducted in Siddhartha Children and women Hospital. This study is based on general system theory. The Karl Ludwig Von Bertalanffy was an Austrian born biologist known as one of the founders of general systems theory. The researcher adopted the Conceptual framework based on Ludwig Von Bertalanffy's general system theory (1972)

The research design used for the study was one group pre-test and one group post- test design. Data collected using non probability convenient sampling. Pilot study was conducted with constructed tool with which it as found reliable respectively. The data was collected to evaluate the effectiveness of Art Therapy among children of paediatric ward. The data collected were analyzed and interpreted by using descriptive and inferential statistics. Major findings of the study are some children have no any anxiety and some have very high anxiety on anxiety scale.

### 4. DISCUSSION & FINDINGS:

#### ORGANIZATION OF FINDINGS

The data analysis is presented under the following headings: -

**Section A:** Description of extraneous variables.

**Section b:** Frequency and percentage distribution of pre-test and post-test score.

**Section C:** Comparison of pre-test and post-test score.

**Section D:** Association of extraneous variables of staff nurses with pre-test observational scale score.

### 5. Results:

#### Section A: demographic variables

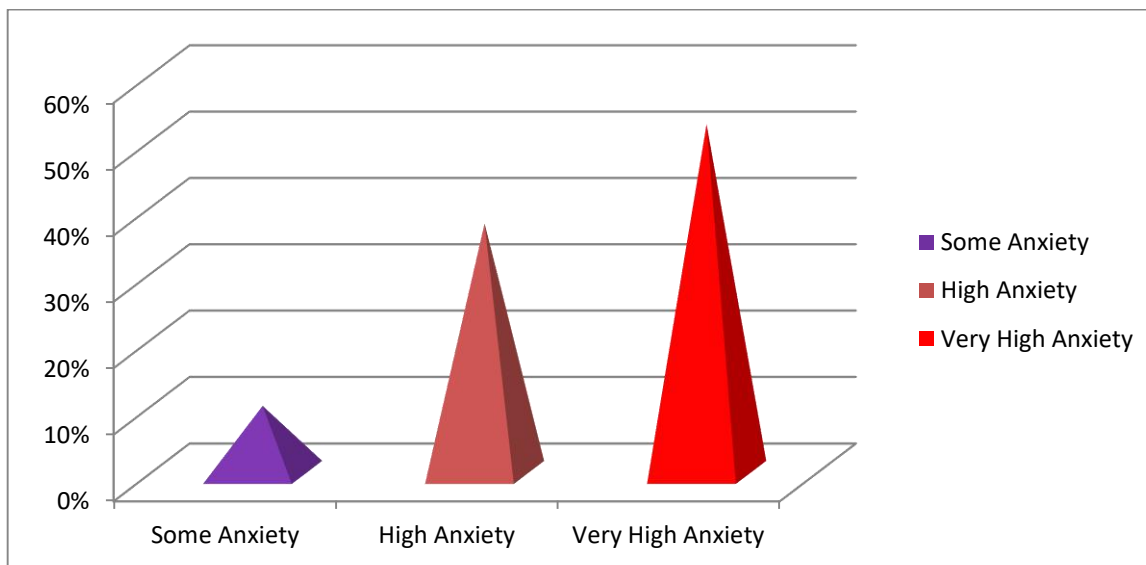
S. No.	Demographic variables	Frequency(f) N= 40	Percentage (%)
1	<b>Age group</b>		
	6 – 8 years	24	60%
	9 – 10 years	09	22.5%
	11 – 12 years	07	17.5%
2	<b>Gender</b>		
	Male	15	37.5%
	Female	25	62.5%
3	<b>Education of child</b>		
	1 <sup>st</sup> – 3 <sup>rd</sup> standard	27	67.5%
	4 <sup>th</sup> – 6 <sup>th</sup> standard	12	30%
	7 <sup>th</sup> and above	01	2.5%
4	<b>Religion</b>		
	Hindu	35	87.5%
	Islam	02	05%
	Christian	02	05%
	Other	01	2.5%
5	<b>Type of family</b>		
	Nuclear	27	67.5%
	Joint	11	27.5%
	Single parent	02	05%
6	<b>Father's education</b>		
	Illiterate	01	2.5%
	Primary	04	10%
	Secondary	20	50%
	Graduate and above	14	35%

	Absence of father	01	2.5%
<b>7</b>	<b>Mother's education</b>		
	Illiterate	03	7.5%
	Primary	07	17.5%
	Secondary	21	52.5%
	Graduate and above	08	20%
	Absence of mother	01	2.5%
<b>8</b>	<b>Father's occupation</b>		
	Government	11	27.5%
	Private	21	52.5%
	Self employed	06	15%
	Unemployed	01	2.5%
	Absence of father	01	2.5%
<b>9</b>	<b>Mother's occupation</b>		
	Government	04	10%
	Private	07	17.5%
	Self employed	03	7.5%
	Home maker	25	62.5%
	Absence of father	01	2.5%
<b>10</b>	<b>Family income</b>		
	Below 5000	02	5%
	5000 – 10000	07	17.5%
	1100 – 15000	06	15%
	16000 – 20000	13	32.5%
	20000 and above	12	30%
<b>11</b>	<b>Duration of hospitalization</b>		
	3 days	08	20%
	4 days	17	42.5%
	Above 4 days	15	37.5%
<b>12</b>	<b>Presence of caregiver</b>		
	Father	4	10%
	mother	31	77.5%
	Grandparents	04	10%
	Relatives	01	2.5%
<b>13</b>	<b>Play activities</b>		
	Toys	04	10%
	Video game	02	05%
	Drawing	01	2.5%
	Other	02	05%
	Not playing anything	31	77.5%

Table depicted the demographic data details according to their age in years depicts that majority of the respondent 60% (24) were in the age group of 6 -8 years, majority of the children 67.5% (27) are in 1<sup>st</sup> – 3<sup>rd</sup> standard, majority of the respondent 87.5% (35) were Hindu, majority of the respondent 67.5% (27) were from nuclear family, majority of the fathers 50% (20) were of secondary level, majority of the mothers 52.5% (21) were in secondary level, majority of fathers 52.5% (21) do private job. Majority of mothers 62.5% (25) were home maker, majority of family 32.5% (13) family has income of 16000 – 20000/month, majority of children 42.5% (17) stayed hospital for 4 days, majority of children 77.5% (31) were with their mother, majority of children 77.5% (31) were not playing anything, and 2.5% (1) was drawing.

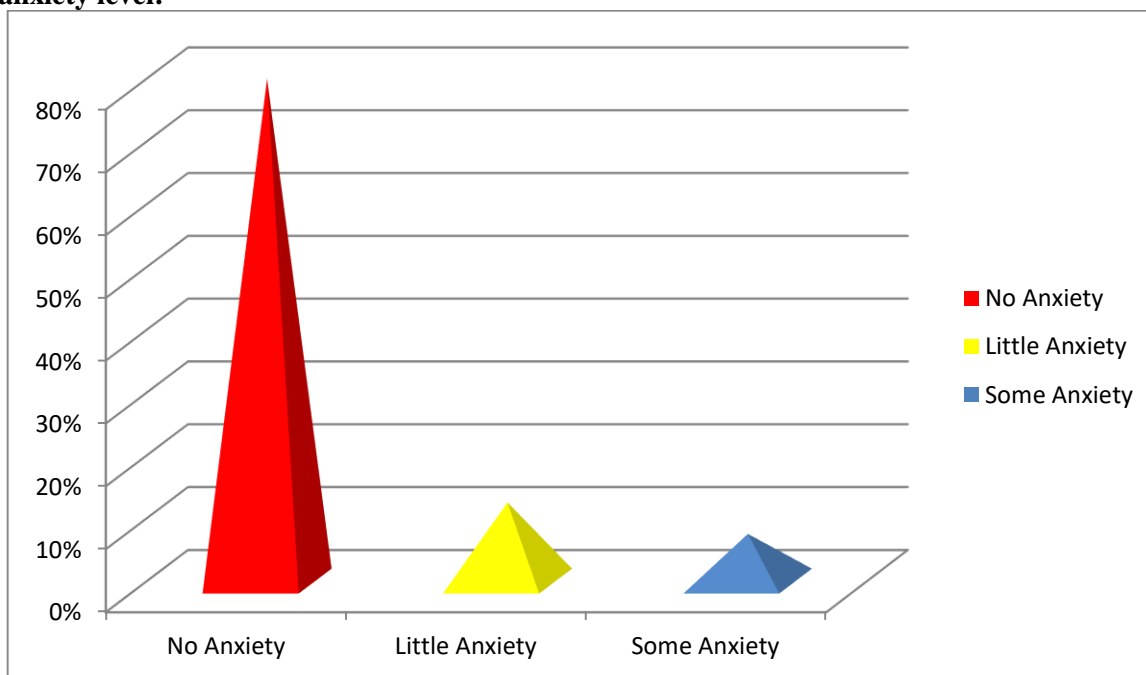
#### SECTION B : Frequency and percentage distribution of pre-test and post-test score.

Pre-test anxiety level:



Percentage distribution in relation to pre test level of anxiety during hospitalization depicted that majority of children 52.5% (21) had very high level of anxiety, 37.5% (15) had high level of anxiety and 10% (4) has some anxiety.

**Post test anxiety level:**



Percentage distribution in relation to post test level of anxiety after intervention of art therapy depicted that majority of children 80% (32) has no anxiety, 12.5% (5) has little anxiety and 7.5% (3) has some anxiety level.

**Section C: Comparison of pre-test and post-test score.**

**Effectiveness of Intervention**

Comparison of mean pre- and post-test anxiety scores was done using paired-sample t-test. The analysis showed that there was a statistically significant difference in pre- and post-test scores of the study participants ( $p < 0.05$ ). The post-test anxiety score ( $1.27 \pm 0.60$ ) was significantly lower than the pre-test score ( $4.42 \pm 0.67$ ).

**Paired Samples Statistics**

	Mean	N	Std. Deviation	p-value
pre_test	4.42	40	.67	<b>&lt;0.05*</b>
post_test	1.27	40	.60	

\*Statistically significant ( $p < 0.05$ ), Paired sample t-test ( $t = 21.170$ ,  $p < 0.05$ )

**Section D :Association of Pre-test anxiety level with Demographic Variables**

The association of pre-test anxiety levels with demographic variables was tested using Chi-square test. The analysis showed that there was only 1 statistically significant association among all the sociodemographic variables with pre-test anxiety ( $p > 0.05$ ).

Demographic variables	Pre-test Anxiety			df	Chi square $\chi^2$	p-value	Level of Significance
	Some anxiety	High anxiety	Very high anxiety				
<b>Age Group</b>							
6-8 Years	3 (75%)	10 (66.7%)	11 (52.4%)	4	6.918	0.140	#
9-10 Years	0 (0%)	1 (6.7%)	8 (38.1%)				
11-12 Years	1 (25%)	4 (26.7%)	2 (9.5%)				
<b>Gender</b>							
Male	2 (50%)	6 (40%)	7 (33.3%)	2	0.462	0.794	*
Female	2 (50%)	9 (60%)	14 (66.7%)				
<b>Child's Education</b>							
1 <sup>st</sup> -3 <sup>rd</sup> Standard	3 (75%)	11 (73.3%)	13 (61.9%)	4	2.865	0.581	#
4 <sup>th</sup> -6 <sup>th</sup> Standard	1 (25%)	3 (20%)	8 (38.1%)				
7 <sup>th</sup> and above	0 (0%)	1 (6.7%)	0 (0%)				
<b>Religion</b>							
Hindu	3 (75%)	13 (86.7%)	19 (90.5%)	6	5.618	0.467	#
Muslim	0 (0%)	1 (6.7%)	1 (4.8%)				
Christian	1 (25%)	1 (6.7%)	0 (0%)				
Others	0 (0%)	0 (0%)	1 (4.8%)				
<b>Family Type</b>							
Nuclear	4 (100%)	8 (53.3%)	15 (71.4%)	4	6.579	0.160	#
Joint	0 (0%)	7 (46.7%)	4 (19%)				
Single parent	0 (0%)	0 (0%)	2 (9.6%)				
<b>Father's Education</b>							
Illiterate	0 (0%)	1 (6.7%)	0 (0%)	6	3.306	0.770	#
Primary	0 (0%)	2 (13.3%)	2 (10%)				
Secondary	2 (50%)	6 (40%)	12 (60%)				
Graduate and above	2 (50%)	6 (40%)	6 (30%)				
<b>Mother's Education</b>							
Illiterate	0 (0%)	1 (6.7%)	2 (10%)	6	3.513	0.742	#
Primary	0 (0%)	3 (20%)	4 (20%)				
Secondary	2 (50%)	9 (60%)	10 (50%)				
Graduate and above	2 (50%)	2 (13.3%)	4 (20%)				
<b>Father's Occupation</b>							
Government	1 (25%)	6 (40%)	4 (20%)	6	4.772	0.573	#
Private	3 (75%)	6 (40%)	12 (60%)				
Self-employed	0 (0%)	2 (13.3%)	4 (20%)				
Unemployed	0 (0%)	1 (6.7%)	0 (0%)				
<b>Mother's Occupation</b>							
Government	0 (0%)	1 (6.7%)	3 (15%)	6	10.796	0.095	#
Private	3 (75%)	2 (13.3%)	2 (10%)				
Self-employed	0 (0%)	1 (6.7%)	2 (10%)				
Home-maker	1 (25%)	11 (73.3%)	13 (65%)				
<b>Family Income/Month</b>							
Below 5000	0 (0%)	0 (0%)	2 (9.5%)	8	4.335	0.826	#
	0 (0%)	4 (26.7%)	3 (14.3%)				

5000-10000	1 (25%)	2 (13.3%)	3 (14.3%)				
11000-15000	1 (25%)	5 (33.3%)	7 (33.3%)				
16000-20000	2 (50%)	4 (26.7%)	6 (28.6%)				
>20000							
<b>Duration of Hospitalization</b>							
3 days	1 (25%)	1 (6.7%)	6 (28.6%)	4	3.231	0.520	#
4 days	2 (50%)	8 (53.3%)	7 (33.3%)				
Above 4 days	1 (25%)	6 (40%)	8 (38.1%)				
<b>Caregiver</b>							
Father	0 (0%)	1 (6.7%)	3 (14.3%)	6	10.737	0.097	#
Mother	2 (50%)	14 (93.3%)	15 (71.4%)				
Grandparents	2 (50%)	0 (0%)	2 (9.5%)				
Relatives	0 (0%)	0 (0%)	1 (4.8%)				
<b>Play Activities</b>							
Toys	0 (0%)	2 (13.3%)	2 (9.5%)	8	10.750	0.216	#
Video Games	1 (25%)	1 (6.7%)	0 (0%)				
Drawing	0 (0%)	0 (0%)	1 (4.8%)				
Other	1 (25%)	1 (6.7%)	0 (0%)				
Not playing	2 (50%)	11 (73.3%)	18 (85.7%)				

\*statistically not significant

#statistically significant

Comparison of mean pre- and post-test anxiety scores was done using paired-sample t-test. The analysis showed that there was a statistically significant difference in pre- and post-test scores of the study participants ( $p < 0.05$ ). The post-test anxiety score ( $1.27 \pm 0.60$ ) was significantly lower than the pre-test score ( $4.42 \pm 0.67$ ).

##### 5. RECOMMENDATIONS: recommendations based on findings,

- ❖ The same study can be done with large sample size so that the results can be generalized.
- ❖ Comparison of Art therapy with other types of relaxation techniques like music therapy and play therapy can be done.
- ❖ A study can be conducted to assess the awareness and practice on Art therapy on hospital anxiety among paediatric staff Nurses.
- ❖ The same study can be done on different settings.
- ❖ A similar study can be done by increasing time duration and using different themes of Art therapy.
- ❖ Pre experimental study can be done to assess the effectiveness of Mozart music intervention between children of different age groups.
- ❖ Comparative study can be done to assess the effectiveness of Mozart music with other non-pharmacological interventions for pain management.

##### 6. CONCLUSION:

Anxiety is one of the most common experiences of every hospitalized child; it adversely affects the course of hospital stay and affects the quality of nursing care as well. Art therapy reduces the anxiety in the hospitalized child. This study highlighted the effectiveness of art therapy in reducing anxiety among hospitalized children, and thereby improves the quality care during hospital stay. Study findings showed that after the administration of Dot Drawing Art Therapy among hospitalized children there was a significant reduction in the level of anxiety and thus promoted the cooperation of children with nurses.

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