



Effectiveness Of Art Therapy On Level Of Anxiety Among School Going Children In Selected School, Siliguri.

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Abstract: Anxiety disorders are most common diagnosis in school going children, with prevalence rate of 8%. Untreated anxiety in children can have deleterious consequences. Art therapy can be meditative and mindful practice which promotes a state of relaxation, reduces anxiety and fosters a sense of calmness especially for those who are experiencing anxiety. A quasi experimental one group pre-test post-test study was conducted with the aim to assess the effectiveness of Art therapy on anxiety among the school going children and to find out the association with selected demographic variables. Conceptual framework was based on Karl Ludwig Von Bertalarffy's General System Theory. Data was collected from 108 school going children through systematic random sampling technique before and after intervention by using Spence Children's Anxiety Scale-Child at Dr. B.R Ambedkar Primary School, Siliguri. Analysis was done by using descriptive and inferential statistics. Findings revealed that 28.70% of children had elevated anxiety, 27.77% had moderate anxiety and 5.55% had severe anxiety which after art therapy reduced to 9.28%, 7.40% and 2.77% respectively. Pre-test and post-test mean score is 61 ± 8.67 and 55.78 ± 30.81 respectively. The calculated 'r' value is 0.48 showing mild positive correlation between pre-test and post-test score which was found to be statistically significant with 't' value of 13.97*** at $p \leq 0.001$ level of significance. Significant association were found between level of anxiety with demographic variables like age and gender at $p \leq 0.001$, mother's occupation and family income at $p \leq 0.05$, child's education, parent's education and presence of care giver at $p \leq 0.50$ level of significance. The study concluded that art therapy was effective in reducing the level of anxiety among school going children.

Index Terms- Anxiety, Art therapy, School Going Children.

INTRODUCTION

The term anxiety is usually defined as a diffuse, vague, very unpleasant feeling of fear or apprehension. [1] Untreated anxiety disorders can have both short and long term deleterious consequences in children and adolescents. Research indicate that children with anxiety disorders have lower academic achievement, problems with peer and parental relationships, poor vocational adjustment, negative self-perception, poor self-esteem, and an increased likelihood of psychiatric disorders later in life. [2] According to Centres for Disease Control and Prevention, 9.4% of children aged 3-17 years (approximately 5.8 million) had diagnosed anxiety in 2016- 2019. [3] Anxiety disorders are the most common psychiatric diagnosis in school going children worldwide, with an estimated overall prevalence rate of 8% (ranging 4 to 25%). [1] An Indian study was conducted by Malhotra S, Kohli A, Kapoor M and Pradhan B to estimate the incidence of psychiatric disorder in school children and the findings revealed that the incidence rate of childhood psychiatric disorders as 18/1000/year. [4]

Art therapy is a form of psychotherapy often used with children suffering from anxiety. [5] Art therapy is based on the idea that the creative process of art making is healing and life enhancing and is a form of nonverbal communication of thoughts and feelings. It is a modality that can help children of all ages to express their thoughts and feelings, create meaning, achieve insight, find relief from overwhelming emotions or trauma, resolve conflicts and problems, enrich daily life, and achieve an increased sense of well-being through art materials and interventions. [5]

NEED OF THE STUDY

Drawing and colouring can be incredibly beneficial for various psychological benefits for children as it promotes mind-fullness, relaxation and boosting self-esteem, especially for children, who may be experiencing stress, anxiety, or low self-esteem. Drawing and colouring serves as a healthy distraction from daily stressors ,it provides an opportunity to ventilate themselves from stressful situation. Therefore colouring and drawing further providing the children in helping cope with their feelings, frustration and emotions ultimately leading to the process of learning the skill of patience with benefits of the thought process, reduction of stress, anxiety and boost in their self-esteem.

Art therapy services have become more common in school settings and have been shown to help children cope with the psychological distress. [5] Zoe Moula conducted a systematic review of the effectiveness of art therapy delivered in school-based settings to children aged 5-12 years revealed that art therapy is effective in improving children's quality of life, anxiety, self-concept, problem-solving skills, attitudes towards school, emotional and behavioural difficulties. [6] A study was conducted by Khadar M G, Babapour J and Hassan S to assess the effect of art therapy based on painting therapy on 30 children recruited from elementary School Boys in reducing symptoms of separation anxiety disorder (SAD) and the findings revealed that the children had a significant decrease in the symptoms of Separation Anxiety Disorder. [7]

Maheswari M and Evency A R (2021) conducted a quasi-experimental, non-randomized control group research study to evaluate the effectiveness of Art Therapy on level of anxiety among hospitalized school age children. The structured questionnaire was developed to collect data. The samples were selected by purposive sampling technique and data collection was carried out among 64 school age children in a selected hospital at Kanyakumari district. Pretest and posttest conducted before and after Art Therapy by using Structured Anxiety Rating scale. The findings revealed the level of anxiety among hospitalized School age children. The unpaired 't' test value was 8.86 was significant at $p \leq 0.05$ and was highly significant at $p \leq 0.01$, $p \leq 0.001$. It represents the effectiveness of Art Therapy in reducing the level of anxiety. There was a significant association between the Gender, Extracurricular activities, previous experience with type of illness and Activities of the child during hospitalization. [8]

Sari W et al (2020) conducted a quasi-experimental non-equivalent without control group research study to determine the effectiveness of painting and colouring in reducing the anxiety level of preschool children before undergoing chemotherapy at RSAB Harapan Kita Jakarta. This study used total sampling technique with 16 preschool age children with cancer. The data measurement tool was HARS questionnaire. The results of this study showed that there was an average difference in anxiety levels of children before and after colouring interventions before chemotherapy procedures (p -value $<0,000$, $\Delta = -15.00$) and painting and colouring interventions also showed an average difference in children's anxiety levels before and after intervention before undergoing chemotherapy procedures (p -value $<0,000$, $\Delta = -13.00$). [9]

Sao K.P and Maurya A (2017) conducted a quasi-experimental research design with pre-test post-test control group design to compare the effectiveness of art therapy on the level of anxiety among the hospitalized children of Wardha district. Total sample 60 school age hospitalized children were selected using non- probability convenient sampling technique. Modified Spence Anxiety scales were used to collect the data. Findings revealed that the children had severe anxiety score in pre-test and none of them had severe anxiety score in post-test. The calculated 't' value [26.16] is higher than the tabulated 't' value [2.045] at 5% level of significance.[10]

Anxiety disorders represent one of the most common forms of child psychopathology. Various research has shown that anxiety disorders in children are often associated with a range of negative consequences in terms of social, scholastic and personal adjustment. If left untreated, may persist through adolescence and adulthood. Thus, the purpose of this study is to identify anxious children as early as possible and provide art therapy as an intervention to reduce the level of anxiety among school going children.

OPERATIONAL DEFINITION

Effectiveness: In this study effectiveness refers to the extent to which art therapy reduces the level of anxiety among school going children as assessed by Spence Children's Anxiety Scale.

Art therapy: In this study art therapy refers to a systematic approach used by making the child to draw a picture by connecting the dots and colouring it with crayons and colour pencils for 40 minutes a day for one week.

Level of anxiety: In this study level of anxiety refers to feelings of fear and concerns of school going children as measured by Spence Children's Anxiety Scale. Score of less than 60 is considered normal, 60-64 indicates elevated anxiety, 65-69 indicates moderate anxiety, 70 and above indicates severe anxiety.

School going children: In this study school going children refers to a child who belongs to the age group of 6-12 years.

HYPOTHESIS

H1- There will be statistically significant difference between level of anxiety among the school going children and art therapy at 0.001 level of significance.

H2- There will be statistically significant association between pre-test score of level of anxiety with selected demographic variables.

CONCEPTUAL FRAMEWORK

Conceptual framework for this study is derived from the General System Theory designed by Ludwig von Bertalanffy (1986) which deals with a general science of 'wholeness.' It emphasizes relationships between the whole and the parts and describes how parts function and behave. The peculiarity of open system is that they allow energy, matter, and information to move freely between systems and boundaries. The systems interaction has three components:-Input, Throughput and Output. [11]

Input- It refers to what enters the system from outside. In this study, the input consists of demographic variables and level of anxiety which is assessed by Spence Children's Anxiety Scale.

Throughput- This refers to the transformation of input into output by the system. In this study, the throughput is implementation of art therapy.

Output- Output refers to what leaves the system outside of themselves. In this study, output was categorized into two parts, reduction in the level of anxiety and no reduction in the level of anxiety.

METHODOLOGY

A quasi experimental one group pre-test post-test research design was adopted for this study. The sample of this research study was 108 school going children at Dr. B.R Ambedkar Primary School, Siliguri through systematic random sampling technique. Non-probability convenient sampling technique was used to select the setting. The instrument used to assess the level of anxiety among school going children was Spence Children's Anxiety Scale- Child version. Art Therapy (drawing pictures by connecting dots and colouring with crayons and colour pencils) was provided for 40 minutes a day for 5 days in a week for consecutive 4 weeks. Pre-test and post-test were done before and on the 30th day of the intervention respectively.

DATA ANALYSIS

Data was organized, tabulated, and interpreted using descriptive and inferential statistics. Paired t-test was used to assess the effectiveness of Art Therapy to reduce level of anxiety among school going children. Correlation-coefficient and chi-square test examined the relationship and association between selected demographic variables.

RESULT

Description of sample characteristics

The data presented in table 1 shows that most of the respondents were between the ages 6-8 years (58.33%), 9-11 years (36.11%) and 12 years and above (5.55%). Girl respondents were 52.77% and boy respondents were 47.22%. Majority of the respondents that is 73.14% were Hindu and 26.85% of respondents were is Muslim. Most of the respondents (48.14%) were in 1st to 2nd standard, 31.48% were in 3rd to 4th standard, 20.37% were in 5th to 6th standard. Maximum respondents (56.48%) belonged to nuclear family and 43.51% belonged to joint family. The majority of fathers that is 49.07% had up to secondary education, 32.40% had primary education, 16.66% fathers were illiterate and only 1.85% of them were graduate. Maximum number of mothers that is 40.74% had secondary education, 42.59% had primary education and 16.5% were illiterate. Most of the father's (74.07%) were self-employed, 22.22% were private employees and 3.70% were government employees whereas 74.07% mothers were home maker, 24.07% were self-employed and 1.85% were private employees. Majority of family's income (46.29%) were between Rs.10001-15000/-, 28.70% were between Rs.5000-10000/- and 25% were between Rs.15001-20000/- per month. Maximum of the respondents (96.29%) were taken care by mothers, 1.85% by their grandparents and 1.85% by their fathers. In activity, 32.40% of respondents

liked to do other activities (dance and watching tv), 27.77% liked to play games, 2.5% liked to do art and 14.81% liked to listen to songs.

Table 1 Frequency and percentage distribution of sample characteristics.

Sample	Characteristics	Frequency	n=108
			Percentage (%)
Age (in years)	6-8	63	58.3
	9-11	39	36.11
	12	6	5.55
Sex	Boy	51	47.22
	Girl	57	52.77
Religion	Hindu	79	73.14
	Muslim	29	26.85
Education	1 st to 2 nd standard	52	48.14
	3 rd to 4 th standard	34	31.48
	5 th to 6 th standard	22	20.37
Family	Nuclear	61	56.48
	Joint	47	43.51
Father's education	Illiterate	18	16.66
	Primary education	35	32.40
	Secondary education	53	49.07
	Graduate	02	1.85
Mother's education	Illiterate	18	16.6
	Primary education	46	42.59
	Secondary education	44	40.74
	Graduate	02	1.85
Father's occupation	Government employee	04	3.70
	Private employee	24	22.22
	Self-employed	80	74.07
Mother's occupation	Private employee	02	1.85
	Self-employed	26	24.07
	Home maker	80	74.07
Family income	5000-10,000/month	31	28.70
	10001-15000/month	50	46.29
	15001-20000/month	27	25
Presence of care giver	Father	02	1.85
	Mother	104	96.29
	Grand parents	02	1.85
Play activity	Game	30	27.77
	Art	27	25
	Song	16	14.81
	Others	35	32.40

Comparison of pre-test and post-test level of anxiety among school going children

Figure 1 shows that 28.70% of children had elevated anxiety, 27.77% had moderate anxiety and 5.55% had severe anxiety which after art therapy reduced to 9.28%, 7.40% and 2.77% respectively.

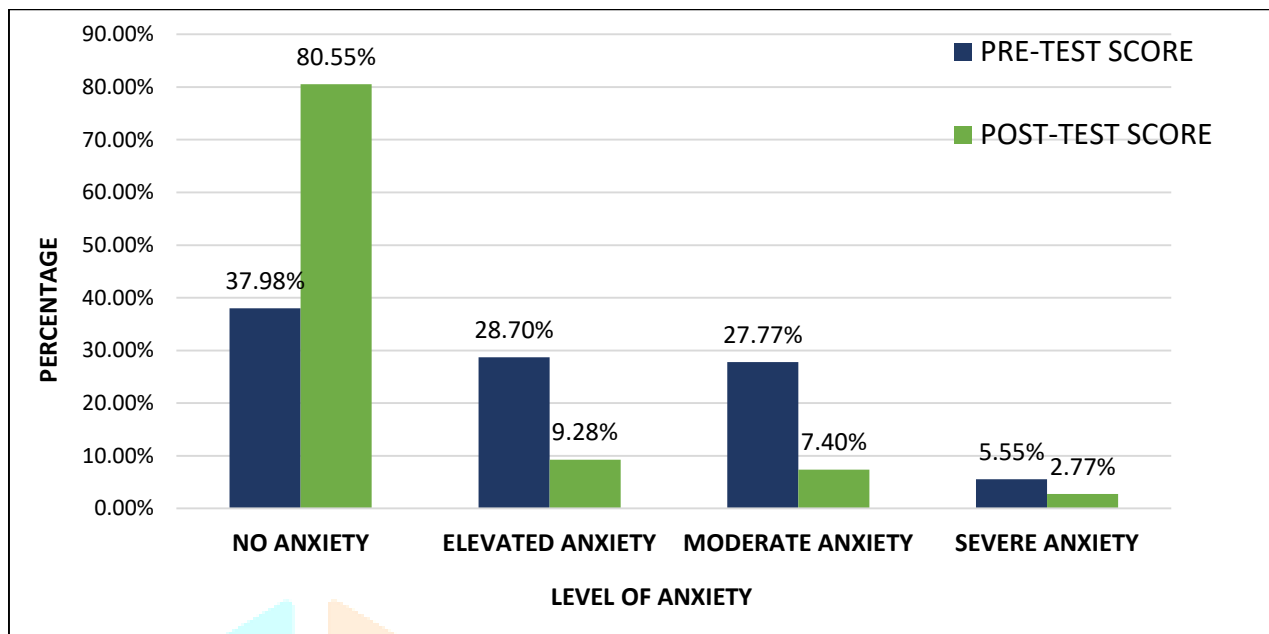


Figure 1 Bar diagram showing percentage distribution of pre-test and post-test level of anxiety score.

The data presented in table 2 shows that the mean and standard deviation of pre-test score of the respondents were 61 and 8.67 respectively and the mean and standard deviation of post-test score of the respondents were 55.78 and 30.81. The mean difference is 5.22.

Table 2 Mean, standard deviation and mean difference of the pre-test and post-test depression score

Test	Mean	Standard Deviation	Mean Difference
Pre-test	61	8.67	5.22
Post- test	55.78	30.81	

n=108

Effectiveness of Art Therapy on level of anxiety among school going children

The data in table 3 shows that pre-test mean score is 61 ± 8.67 and the post-test mean score is 55.78 ± 30.81 . The mean difference is 5.22. The calculated paired 't' test value 13.97 is highly significant than the table value 3.46. This shows that art therapy was effective in reducing the level of anxiety among school going children at $p < 0.001$ level of significance. Hence, art therapy is effective in reducing level of anxiety among school going children.

Table 3 Mean, standard deviation, mean difference and 't' value of the pre-test and post-test depression score

Test	Mean	Standard Deviation	Mean Difference	df	Paired 't' test
Pre-test	61	8.67	5.22	107	13.97***
Post- test	55.78	30.81			

n=108

$$df(108)=3.46, p < 0.001$$

Association between level of anxiety among school going children and demographic variables

Statistically significant association were found between level of anxiety with demographic variables like age and gender at $p \leq 0.001$, mother's occupation and family income at $p \leq 0.05$, child's education, parent's education and care giver at $p \leq 0.50$ level of significance.

DISCUSSION

The present study shows that Art Therapy was effective in reducing the level of anxiety among school going children. The findings are consistent with the previous studies that found Art Therapy effective in reducing the level of anxiety among children. [6,7,8,9,10]

CONCLUSION

The study concluded that providing Art Therapy was effective in reducing the level of anxiety among school going children. Art therapy is a form of psychotherapy often used with children suffering from anxiety which can be implemented by the health care providers in different health care settings. The study can be replicated with a larger sample so that the findings can be generalized to a larger population. The study can be replicated in other states of India.

REFERENCE

1. Manuel D, John M, Rekha NS. A study on the prevalence of anxiety related disorders among adolescents in rural Kerala. *J. Evid. Based Med. Healthc.* 2016; 3(58), 3077-3079. DOI: 10.18410/jebmh/2016/670
2. Bakhla AK, Sinha P, Sharan R, Binay Y, Verma V, Chaudhury S. Anxiety in school students: Role of parenting and gender. *Ind Psychiatry J.* 2013 Jul;22(2):131-7. doi: 10.4103/0972-6748.132927. PMID: 25013314; PMCID: PMC4085805.
3. Centers for Disease Control and Prevention. Children's mental Health. Anxiety and depression in children; Get the facts. Available from: <https://www.cdc.gov/childrensmentalhealth/features/anxiety-depression-children.html#:~:text=9.4%25%20of%20children%20aged%203,diagnosed%20depression%20in%202016%2D2019>.
4. Malhotra S, Kohli A, Kapoor M, Pradhan B. Incidence of childhood psychiatric disorders in India. *Indian J Psychiatry.* 2009 Apr;51(2):101-7. doi: 10.4103/0019-5545.49449. PMID: 19823628; PMCID: PMC2755176.
5. Himalayan Journal of Nursing and Midwifery Abbreviated Key Title: Hmlyan Jr Nur Mid; ISSN: 2790-6434 (Print) & ISSN: 2790-6442 (Online) Published By Inlight Publisher, Kuwait Volume-1 | Issue-1| Jan-Feb- 2022 | Available from <https://inlightpublisher.com/journal/hjnm/home>
6. Zoe Moula (2020) A systematic review of the effectiveness of art therapy delivered in school-based settings to children aged 5–12 years, *International Journal of Art Therapy*, 25:2, 88-99, DOI: 10.1080/17454832.2020.1751219
7. Gholamzade, Mojtaba & Babapour, Jalil & Sabourimoghaddam, Hassan. (2013). The Effect of Art Therapy based on Painting Therapy in Reducing Symptoms of Separation Anxiety Disorder (SAD) in Elementary School Boys. *Procedia - Social and Behavioral Sciences.* 84. 1697-1703. 10.1016/j.sbspro.2013.07.016.
8. M.Maheswari, & A. Reena Evency. (2021). Effectiveness of Art Therapy on Level of Anxiety among Hospitalized School Age Children in a Selected Hospital at Kanyakumari District. *International Journal of Nursing Education*, 13(4), 30–33. <https://doi.org/10.37506/ijone.v13i4.16584>
9. Sari, W. Nurhayati, E., Sulaeman, S. And Heny Purwanti, N. The effectiveness of playing Therapy: Painting and coloring on Anxiety levels preschool Children before Chemotherapy in woman and Children Hospital of Harapan Kita Jakarta. DOI: 10.5220/0009953128202826
10. K.P. Sao & A. Maruya. (2017). Effectiveness of art therapy on level of anxiety among hospitalized children. *International Journal of Science and Research*, 6(8), 974-977. http://ijsr.net/get_count.php?paper_id=ART20176093
11. Taylor C, Lillis C, LeMone P, Lynn P. *Fundamentals of Nursing: The art and science of nursing care.* 6th ed. Lippincott Williams & Wilkins. New Delhi.2009; vol-1, 84-85.