



# A Study To Assess The Effectiveness Of Art Therapy On Anxiety Among School Age Children At Selected Villages, Perambalur

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## ABSTRACT

✓ **Title:** A Study to assess the effectiveness of Art Therapy on anxiety among school age children at selected villages, Perambalur. **Objective:** To assess the level of anxiety before and after intervention in experimental & control group. To evaluate the effectiveness of art therapy on level of anxiety among school age children in experimental group. To find out the association between the post test level of anxiety among school age children with their selected demographic variable in experimental & control group. **Hypothesis:** There will be a significant difference in the level of anxiety before and after intervention in experimental and control group. There will be a significant effectiveness of the art therapy on level of anxiety among children in experimental group. There will be a significant association between the post-test level of anxiety with their among school age children in experimental and control group selected demographic variables. **Conceptual Frame Work:** Conceptual Framework of Health belief model from Croyle (2005) **Research Design:** Quasi experimental before and after control group. **Setting:** Experimental group from Keelapuliyur village for control group from Sirugudal. **Sampling Technique:** Convenient sampling technique. **Intervention:** Each School going children was given Art therapy at the duration of 20 minutes 5 times/day for 3 consecutive days for the experimental group whereas the control group received routine care. **Result:** In pretest 53% of them often level of Children's with anxiety. 27% of them Occasional level of Children's with anxiety. 13% of them Usual level of Children's with anxiety. 7% of them don't have anxiety within Scholl age children's. Post Test, 60% of them have anxiety occasionally 20% of them have anxiety often.13% of them have anxiety usually. 7% of them have no anxiety. **Conclusion:** School age children's with Anxiety have only average and good level of

socio activities. Art therapy was effective in improving level of activity like education performance and social behavior activities.

## CHAPTER - I

### INTRODUCTION

*“Children are like wet cement whatever falls on them makes an impression.”*

- Haim Ginott, child psychologist (1955)

Biologically, a child is a human being between the stages of birth and puberty or between the developmental period of infancy and puberty. The legal definition of child generally refers to a minor, otherwise known as a person younger than the age of majority, **(UNICEF, 2019)**.

Early childhood follows the infancy stage and begins with toddlerhood when the child begins speaking or taking steps independently. While toddlerhood ends around age 3 when the child becomes less dependent on parental assistance for basic needs, early childhood continues approximately until the age of 7. However, according to the National Association for the Education of Young Children, early childhood also includes infancy. At this stage children are learning through observing, experimenting and communicating with others. Adults supervise and support the development process of the child, which then will lead to the child’s autonomy. Also during this stage, a strong emotional bond is created between the child and the care providers. The children also start preschool and kindergarten and hence their social lives, **(WHO, 2017)**.

Middle childhood begins at around age 7, approximating primary school age. It ends with puberty, which typically marks the beginning of adolescence. In this period, children develop socially and mentally. They are at a stage where they make new friends and gain new skills, which will enable them to become more independent and enhance their individuality. During middle childhood, children enter the school years, where they are presented with a different setting than they are used to. This new setting creates new challenges and faces for children, **(JAY DAVIDSON, 2017)**

Middle childhood is the time when children begin to understand responsibility and are beginning to be shaped by their peers and parents. Chores and more responsible decisions come at this time, and so does social comparison, along with social comparison comes social play. With social play comes learning and teaching. During social play, children learn from and teach each other, often through observation, **(UNICEF, 2018)**.

Children enter school-age, their abilities and understanding of concepts and the world around them continue to grow. 6- to 7-year-olds, Understand concept of numbers, know daytime and nighttime, differentiate right and left hands, copy complex shapes, such as a diamond, tell time, understand commands with three separate instructions, explain objects and their use, repeat three numbers backwards, read age-appropriate books and/or materials. 8 to 9-year-olds, count backwards, know the date, Read more and enjoy reading, Understand fractions, Understand concept of space, Draw and paint, name months and days of week, in order, Enjoys collecting objects. 10- to 12-year-olds, Write stories, like to write letters, Read well, Enjoy talking on the phone, **(World of Children Organization, 2017)**.

Childhood is a wonderful phase in one's life. It's time to let loose and explore various things. With all its great moments, it is also a time when children are susceptible to illnesses as their immune system is still developing. Mild illnesses are a part of growing up and there is not a lot that we can do to avoid them. But a basic awareness of the common health issues faced by children can guide parents and address their concerns. **(Narayana Health Foundation, 2012)**.

School children suffer from psychological problems. These may be simple behavioural, emotional or learning problems to complex psychological problems. Some issues resolve with a little help while others persist through adulthood. Prompt diagnosis and appropriate treatment increases the likelihood of successful management of these problems and help children live their lives without breakdowns. Problems range from school refusal, difficulty with concentration and learning, disruptive behaviour, eating and sleeping problems. Some are transitory, mild and moderate, others serious causing distress, confusion, lack of control, become unmanageable, **(Young Minds – 2020)**.

Anxiety is a feeling of fear, dread, and uneasiness. It might cause to sweat, feel restless and tense, and have a rapid heartbeat. It can be a normal reaction to stress. Children might feel anxious when faced with a difficult problem at work, before taking a test, or before making an important decision, **(Medline Plus, 2019)**.

Anxiety is a key part of several different disorders. These include Panic disorder: Experiencing recurring panic attacks at unexpected times. A person with panic disorder may live in fear of the next panic attack, **(Medline Plus, 2019)**

Children can feel anxious about different things at different ages. Many of these worries are a normal part of growing up, from the age of around 6 months to 3 years it's very common for young children to have separation anxiety. They may become clingy and cry when separated from their parents or careers. When young children feel anxious, they cannot always understand or express what they are feeling. You may notice that they; become irritable, tearful or clingy, have difficulty sleeping, wake in the night, start wetting the bed, have bad dreams, **(Narayana Health Foundation, 2014)**.

An anxiety attack is a feeling of overwhelming apprehension, worry, distress or fear. For many people, an anxiety attack builds slowly. It may worsen as a stressful event approaches. Anxiety attacks can vary greatly, and symptoms may differ among individuals. That's because the many symptoms of anxiety don't happen to everyone, and they can change over time. Common symptoms of an anxiety attack include, feeling faint or dizzy, shortness of breath, dry mouth, sweating, chills or hot flashes, apprehension and worry, restlessness, distress, fear, numbness or tingling, **(Medical News Today, 2020)**.

An anxiety disorder is like any other health problem that requires treatment. Researchers have made a lot of progress in the last few decades in treating mental health conditions. Medications can't cure an anxiety disorder. But they can improve symptoms and help School age children function better. They work quickly, but School age children can build up a tolerance to them. That makes them less effective over time, **(Cleveland clinic, 2018)**.

Art therapy is a distinct discipline that incorporates creative methods of expression through visual art media. Art therapy, as a creative arts therapy profession, originated in the fields of art and psychotherapy and may vary in definition. Art therapy can be used to help people improve cognitive and sensory motor function, self-esteem, self-awareness, emotional resilience. It may also aid in resolving conflicts and reduce distress. Current art therapy includes a vast number of other approaches such as person-centered, cognitive, behavior, Gestalt, narrative and family. The tenets of art therapy involve humanism, creativity, reconciling emotional conflicts, fostering self-awareness, and personal growth, **(AIIMS, 2015)**.

Art therapy is a medium for helping kids deal with challenging emotions and express their thoughts and feelings. Art therapy allows children to process the things that have happened to them and helps reduce stress and anxiety as they work through these challenges. By providing kids a safe place to express their negative feelings and emotions, art therapy can help improve a child's mental, emotion, and physical well-being, **(SURUCHI SHAH, 2018)**.

Art therapy is not limited only to coloring but and can also include activities such as drawing pictures, writing stories, choreographing dances, and writing and performing dramas. It is a medium where kids can express their suppressed emotions which they may not be aware of. Sometimes, it may be difficult for them to express their emotions in words but the same emotions can be released through any of these creative mediums, **(SURUCHI SHAH, 2018)**.

## **NEED FOR THE STUDY**

Anxiety Disorders Are Among the most common psychiatric disorders affecting children and adolescents in the general population Participants were 638 children (346 males, 292females), ages 9 to 12 years (mean age = 10.91 years; SD= 0.86). A total of 302 children participated in the FRIENDS program and 336 were in the control group. Schools and not participants were used as the unit of random assignment. That is, schools were randomly assigned to either an intervention or a control condition. No incentives were

given to the children for participating in this project. They were informed that they would be taught specific skills that they would need to better cope with challenging and anxiety-provoking situations both now and in the future. Three hundred and fifty children were approached to participate in the intervention study, of which 311 children agreed to participate; however, 9 children were unable to obtain a signed consent form from their parent or guardian. Of the 302 children who participated in this study, 161 were males and 141 females. The average age was 10.72 years (SD=.96), (**Judith Conradt, 2018**).

As per details from Census 2011, Tamil Nadu has population of 7.21 Crores, an increase from figure of 6.24 Crore in 2001 census. Total population of Tamil Nadu as per 2011 census is 72,147,030 of which male and female are 36,137,975 and 36,009,055 respectively. In 2001, total population was 62,405,679 in which males were 31,400,909 while females were 31,004,770. The total population growth in this decade was 15.61 percent while in previous decade it was 11.19 percent. The population of Tamil Nadu forms 5.96 percent of India in 2011, (**CENSUSINDIA, 2021**).

Anxiety disorders are the most common group of psychiatric disorders in children and adolescents. But few studies on specific anxiety disorders in children and adolescents are available in India. Therefore, this study was planned to identify anxiety disorders in children and adolescents in an Indian psychiatry outpatient setting and elicit its phenomenology and co-morbidities. 1465 persons were screened using screen for child anxiety related emotional disorders (SCARED) scale. The screen positive patients were assessed and diagnosis of anxiety disorders was established according to DSM-IV-TR. Detailed assessment of the phenomenology of anxiety disorders was done by K-SADS-PL. 42 (2.86%) patients had different anxiety disorders. Out of which 16 (38.1%) patients had obsessive compulsive disorder, 10 (23.81%) patients with specific phobias, 6 (14.29%) patients with generalized anxiety disorder, 4 (9.52%) patients with social anxiety disorder and 3 (7.14%) patients each with separation anxiety disorder and panic disorder. Co-morbidities were found in 54% of patients with anxiety disorders. Dissociative disorder, specific phobias and social anxiety disorder were the common co-morbidities. Anxiety disorders are less commonly found in clinic settings (2.86%). No case of posttraumatic stress disorder or acute stress reaction was found in this study, (**SATYAKAM MOHAPATRA, 2016**).

The prevalence of anxiety disorders among adolescents was (22.7%; 95% CI: 19.7–26.0). Girls (27.6%) had higher prevalence than boys (18.3%) ( $P < 0.01$ ). Social anxiety disorder (14.3%; 95% CI: 11.7–16.9) was the most common form of anxiety disorder. Female sex (AOR 1.8; 95% CI 1.2–2.6;  $P < 0.01$ ), lower-middle socioeconomic status (AOR 1.96; 95% CI 1.2–3.1;  $P < 0.01$ ), and presence of stressful event within the past 1-year (AOR 2.48; 95% CI: 1.12–5.06;  $P = 0.01$ ) were found to be associated with the presence of anxiety disorders. Anxiety disorders are common among adolescents in rural settings of India. Tackling them will require appropriate health systems response. Adequate interventions should be incorporated at primary care level to address the mental health concerns of adolescents, (**INDIAN J COMMUNITY MED, 2019**).

Undetected and untreated mental disorders can impair a person's ability to perform at school or work place, cope with daily activities of life and can lead to severe psychiatric disorders and consequences later in their life. Study objective was to determine the prevalence and patterns of depression, anxiety and stress among 400 school going adolescents belonging to classes 10th to 12th of Tirunelveli district, Tamilnadu, India. Burden of Depression, anxiety and stress was assessed using DASS21 questionnaire. Chi-square test was done using SPSS software version 21 to test for statistical significance. Overall prevalence of depression, anxiety and stress was 73.6%, 86.5% and 24.7% respectively. Depression (p value=0.01), Anxiety (p value = 0.005) and stress (p value = 0.007) were significantly observed more among 10th class students when compared with other classes. The present study has identified a higher prevalence of depression, anxiety and stress among students. This warrants immediate action of creating awareness among teachers and parents in early identification and treatment to prevent serious consequences in later life, **(Dr. KARTHIKEYAN G, 2018)**

Presence of Specific Learning Disorder (SLD) can be extremely frustrating for a child. The present study aimed to assess the levels of resilience, depression, anxiety and stress among children and adolescents having SLD and to compare with those having Borderline Intellectual Functioning (BIF). It also aimed to evaluate the parental awareness about their child's learning disorder. Eighty two children and adolescents, diagnosed as having SLD (N=41) and BIF (N=41) were selected for the present study. The participants completed Resilience Scale-14 and Depression, Anxiety and Stress Scales and parents completed the Parent Interview Proforma. Low level of Resilience was found in 75% of the children and adolescents with SLD. Severe Stress (16.6%), severe Depression (14.2%) and severe Anxiety (23.8%) were seen in this sample. The level of Resilience was lower among participants with SLD as compared to those with BIF. Ninety percent of parents were aware that their child had SLD, however, only 39% gave individual attention for assisting them in their studies. The present study emphasizes the importance of individualized interventions dealing not only with remedial training, but also for incorporating components including parental awareness of the emotional consequences of SLD as well as individual interventions for children, focusing on strengthening their coping and Resilience, **(ANUJA S PANICKER, 2016)**.

The repercussions of the COVID-19 pandemic on children's lives deserve attention. This study aimed to assess the prevalence of anxiety among Brazilian children and its associated factors during social distancing during COVID-19. The Children's Anxiety Questionnaire (CAQ; scores 4–12) and the Numerical Rating Scale (NRS; scores 0–10) were used to measure anxiety. We enrolled 157 girls and 132 boys, with a mean age of 8.84 ( $\pm 2.05$ ) years; 88.9% of respondents were mothers. Based on CAQ  $\geq 9$ , the prevalence of anxiety was 19.4% (n = 56), and higher among children with parents with essential jobs and those who were social distancing without parents. In logistic regression, the following variables were associated with higher CAQ scores: social distancing without parents; more persons living together in home; and education level of guardians. Based on NRS  $> 7$ , the prevalence of anxiety was 21.8% (n = 63); however, no associations with NRS scores were found with the investigated variables. These findings

suggest the necessity of implementing public health actions targeting these parents and their children at the population level, (Marla Andréia Garcia de Avila, 2020)

## STATEMENT OF THE PROBLEM

“A Study to assess the effectiveness of Art Therapy on anxiety among school age children at selected villages, Perambalur”.

## OBJECTIVE

- To assess the level of anxiety before and after intervention in experimental & control group.
- To evaluate the effectiveness of art therapy on level of anxiety among school age children in experimental group.
- To find out the association between the post test level of anxiety among school age children with their selected demographic variable in experimental & control group.

## OPERATIONAL DEFINITIONS

### Assess:

It refers to the statistical estimation to level of anxiety in children as elicited by multi-dimensional anxiety scale.

### Effectiveness:

It refers to the extent to which the art therapy produces its intended result on level of anxiety in children as measured in terms of significant gain in mean post test scores.

**Art therapy:** Art therapy is a form of expressive therapy was given to the children alternative days for one week about 5 times a day about 20 mints. The methods of interventional art therapy was special place, inner helper, relaxation jar, sand tray, sock creature, worry box, Emotion with clay, Breathing box, finger labyrinth.

**Anxiety:** Anxiety can be described as an uncomfortable feeling of vague fear or apprehension accompanied by characteristic physical sensation and assessed by multi-dimensional anxiety scale

### School Age Children

It refer to children aged 6yrs to 12yrs from selected villages of Keelapuliur and Sirugudal, Perambalur District.

## HYPOTHESES

**H<sub>1</sub>:** There will be a significant difference in the level of anxiety before and after intervention in experimental and control group.

**H<sub>2</sub>:** There will be a significant effectiveness of the art therapy on level of anxiety among children in experimental group.

**H<sub>3</sub>:** There will be a significant association between the post test level of anxiety with their among school age children in experimental and control group selected demographic variables

## ASSUMPTIONS

- School age children may have anxiety
- Art therapy is reflected which can reduce the anxiety level.
- Anxiety is preventable and treatable.

## LIMITATION

The study is limited to;

- School age children
- Sample size of 30
- School age children at Keelapuliyur & Sirugudal.
- The study period of one month.

## PROJECTEN OUTCOME

1. This study will help the children in reducing the level of anxiety with art therapy.
2. This study finding will reveal the effectiveness of art therapy on level of anxiety in children.

## CONCEPTUAL FRAME WORK

The Health Belief Model (HBM) is one of the first theories of health behavior.

It was developed in the 1950s by a group of U.S. Public Health Service social psychologists who wanted to explain why so few people were participating in programs to prevent and detect disease.

Health Belief Model is a good model for addressing problem behaviors that evoke health concerns, (Croyle RT, 2005).

The health belief model proposes that a person's health-related behavior depends on the person's perception of four critical areas:



- the severity of a potential illness,
- the person's susceptibility to that illness,
- the benefits of taking a preventive action, and
- the barriers to taking that action.

Health Belief Model is a popular model applied in nursing, especially in issues focusing on patient compliance and preventive health care practices.

The model postulates that health-seeking behaviour is influenced by a person's perception of a threat posed by a health problem and the value associated with actions aimed at reducing the threat.

Health Belief Model addresses the relationship between a person's beliefs and behaviors. It provides a way to understanding and predicting how clients will behave in relation to their health and how they will comply with health care therapies.

## **THE MAJOR CONCEPTS AND DEFINITIONS OF THE HEALTH BELIEF MODEL**

There are six major concepts in Health Belief Model:

- Personal Factors
- Perceived Benefits of Action
- Perceived Barriers to Action
- Perceived costs
- Motivation

### **Personal Factors**

Personal factors are categorized as biological, psychological, and socio-cultural. These factors are predictive of a given behavior and shaped by the target behavior's nature being considered.

- Personal biological factors. Include variables such as age, gender, grade in school, type of family, academic performance, parental attention.

### **Perceived severity**

The judgment of personal capability to organize and execute a health-promoting behavior. Perceived self-efficacy influences perceived barriers to action, so higher efficacy results in lowered perceptions of barriers to the behavior's performance.

**Activity-Related Affect**

Subjective positive or negative feeling occurs before, during, and following behavior based on the stimulus properties of the behavior itself. Activity-related affect influences perceived self-efficacy, which means the more positive the subjective feeling, the greater its efficacy. In turn, increased feelings of efficacy can generate a further positive affect.

**Health Motivation**

The concept of intention and identification of a planned strategy leads to the implementation of health belief with Art Therapy methodology.

**Perceived Benefits of Action**

Anticipated positive outcomes that will occur from health behavior.

**Perceived Barriers to Action**

Anticipated, imagined, or real blocks and personal costs of understanding a given behavior.

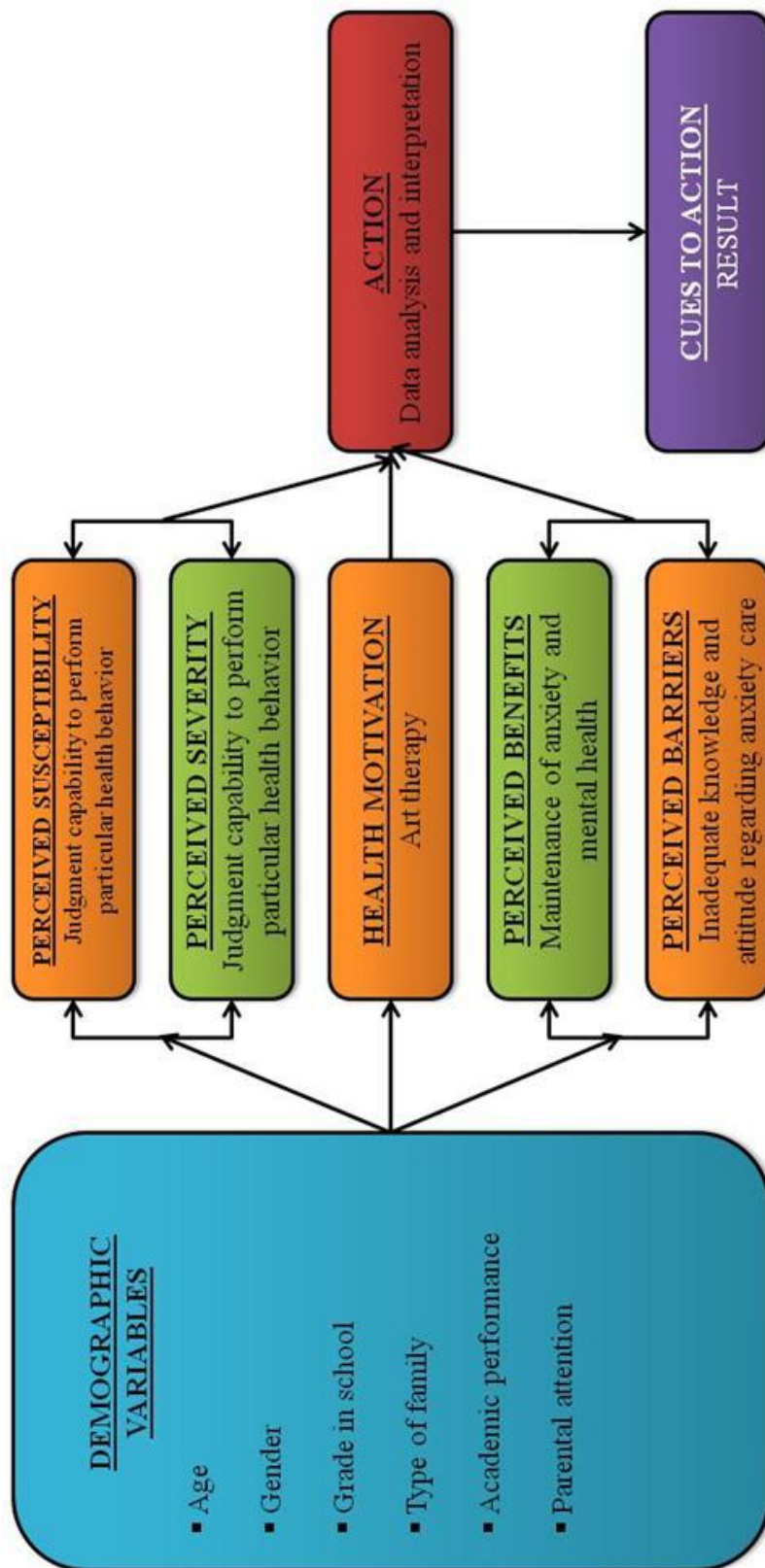


Figure 1.1 Conceptual Framework of Health belief model from Croyle (2005)

## CHAPTER - II

### REVIEW OF LITERATURE

A literature review surveys existing research from scholarly articles, books, dissertations and conference proceedings that are relevant to the area of study. A literature review is not a summary rather it is an evaluation of each work. It seeks for the relationships between different works and how they relate the present study.

The literature is classified into three sessions

**Section A : Literature related to anxiety.**

**Section B : Literature related to Art therapy.**

**Section C : Literature related to the effectiveness of art therapy on Anxiety among school children.**

#### SECTION A: LITERATURE RELATED TO ANXIETY

**Sanjiv K. Bhasin, Rahul Sharma, N. K. Saini (2017)** has conducted a study to assess the depression, anxiety and stress (DAS) among school students belonging to affluent families and the factors associated with high levels of DAS. Students belonging to class 1 to 7<sup>th</sup> selected for the study. DASS-21 questionnaire was used for assessing DAS. The scores in the three domains (DAS) were found to be remarkably correlated. It was seen that depression was significantly more among the females (mean rank 132.5) than the males (mean rank 113.2),  $p=0.03$ . Depression ( $p=0.025$ ), Anxiety (0.005) and Stress ( $p<0.001$ ) were all significantly higher among the 'board classes' i.e., 1 to 7<sup>th</sup> as compared to the classes 1 to 7<sup>th</sup>. All the three (DAS) were found to have an inverse relationship with the academic performance of the students. Depression and Stress were found to be significantly associated with the number of adverse events in the student's life that occurred in last one year.

**Luigi Mazzone\*, Benedetto Vitiello.et al., (2017)** has conducted a study to assess the prevalence of anxiety and the relationship between anxiety and school performance were examined among elementary, middle, and high school students. Samples of elementary (N = 131, age 6-8 years), middle (N = 267, age 8-10 years), and high school (N = 80, age 10-12 years) children were recruited from four public schools in a predominantly middle-class community in Catania, Italy. Children completed the Multidimensional Anxiety Scale for Children (MASC). T-scores were computed for the MASC total scores, and considered to be in the anxious range if 65 or above. Current academic grades were obtained from school records. Results of the 478 children, 35 (7.3%) had a MASC T-score in the anxious range. The rate of children in the anxious range was 2.3% in elementary, 7.9% in middle, and 15.9% in high school ( $\chi^2 = 7.8$ ,  $df = 2$ ,  $p$

< 0.05), and was 14.1% among students with insufficient grades, 9.4% among those with sufficient grades, and 3.9% among those with good or very good grades ( $\chi^2 = 11.68$ ,  $df = 2$ ,  $p < 0.01$ ).

**F. Naderi, and P. Asgariet.al., (2018)** has conducted a study to examine the Efficacy of Play Therapy on Attention Deficit Hyperactivity Disorder (ADHD), Anxiety and Social Maturity in 6-12 years old male and female children. The sample subsumed 80 boys and girls whom were selected randomly via simple sampling procedure from clientele children whom were identified and diagnosed for ADHD and Anxiety in counseling clinics. The subjects randomly allocated to two groups, giving equal chance to every client to be included in each group: the experimental and control group. Experimental group was involved in play therapy for ten sessions; 1 hour each. Control group did not. The results authenticated that play therapy as an effective therapeutic procedure is a conceivable intervention for children experiencing a broad range of problems such as ADHD and anxiety involving no any significant risk.

**Lizasoin O, Polaino A. (2018)** has conducted a study on reduction anxiety in pediatric patients; effects of a psycho pedagogical intervention program. A psychological intervention programs are used as a resource to improve children's life in hospital and to prevent the negative effects of hospitalization one of these negative effects is the children's anxiety. The statistical analysis showed the effectiveness of this program in order to reduce and prevent the emergence of anxiety symptoms.

The results indicated a clear improvement of the preoperative acquisition of knowledge in all age groups. When it comes to alleviation of fear, a positive effect of the preparation programme was noticed, especially among the younger children (<5years), while preoperative anxiety overall was a significantly lesser problem among the older children. Overall, the most negative procedure reported by the children was the I.M. injection for premedication (a routine which was abandoned as a result of the study), followed by the insertion of the IV needle.

**Zeev.N.Kain, Alison.A, (2019)** has conducted a randomized controlled trial on family-centered preparation for surgery Improves School going children 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 anesthesia; (3) advance: received family centered behavioral 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 areas 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 anesthesia as compared with the control and parental presence groups ( $44.9 \pm 22$  vs.  $51.6 \pm 25$  and  $53.6 \pm 25$ , respectively;  $P = 0.006$ ).

**Kemper & Wornham, (2019)** many studies have investigated the effects of massage therapy, demonstrating improvements in anxiety, depression, and cooperation among children. Additionally, chronic illness-related symptoms significantly improve following therapy. In one study, cystic fibrosis patients experienced reduced anxiety, increased mood, and increased peak airflows. For such reasons, massage therapy is increasingly being incorporated into the health care field. Infants undergoing massage therapy were found to spend more time in active/awake states, cry less, and have lower stress levels (as measured by cortisol levels) as compared with rocking.

## SECTION B: LITERATURE RELATED TO ART THERAPY

**Aleksandra S. Dain et.al (2018)** Complementary and alternative medicine (CAM) provides clinical benefits to School going children patients, including decreased pain and improved quality of life. Twenty-nine percent of School going children (169 of 591) reported employing an art, massage, or music therapy. Of those hospices, 74% employed a massage therapy, 53% a music therapy, and 22% an art therapy, and 42% expected the therapy to attend interdisciplinary staff meetings, indicating a significant role for these therapy on the patient's care team. In the analyses, larger Forty-four percent of School going children in the Mountain/Pacific region reported employing a CAM therapist vs. 17% in the South Central region.

**D.Kaiser, (2018)** Painful procedures endured by children with leukemia may be alleviated by art therapy. It is thought that this nonverbal, creative modality can help children develop coping skills for dealing with pain. To test whether art therapy prevents anxiety and fear during painful interventions such as lumbar puncture and bone marrow aspiration.

Method adopted was Experimental design comparing a group who received art therapy protocol with a previous treated group of children who received no service Setting Medical. Study Participants 32 children aged 2-14 years with leukemia. Results & Conclusions: Art therapy appeared to promote more cooperative behavior during painful interventions.

**Thompson,L.J. M (2019)** Art therapy involved 152 in-patient general health care patients. The Pre and post tests were the Positive Affect Negative Affect Scale and the Visual Analogue Scale. Semi structured interviews were also employed. Two groups were compared where the experimental group handled objects from museums (tactile condition) and the comparison group looked at pictures of these objects (visual condition). The results revealed significant increases in wellbeing and happiness and decrease anxiety an advantage for the tactile condition over the visual one.

**Belkofer, C. M., (2019)** Art therapy study presents a modified, single subject design that measure the patterns of electrical activity of a participant's brain following an hour spent painting and drawing. Paired 't' tests were used to compare pre and post art-making electroencephalograph (EEG) data. The results indicated that neurobiological activity after drawing and painting was statistically different ( $p < .05$ ) from

activity measure data rate of rest. In general, the higher frequency bands (alpha and beta) were characterized by increases in brain activity, whereas the lower frequency bands (delta and theta) showed decreases.

**Foster,(2019)** In this out comes study (N =40), changes in stress levels were compared across two participant conditions for a period of artistic activity with a cognitive focus on either a personally stressful or positive situation. Results indicated that participants in the positive focus condition demonstrated a significant decrease in stress, whereas participants in the negative-focus condition demonstrated a slight increase in stress level of ( $p<0.05$ ).

**Forzoni S (2020)** Art therapy has been shown to be helpful to patients at different stages in the course of their illness, especially during hospital stay for treatment, and after treatment. 157 patients in Hospital Siena, Italy met the art therapist during their chemotherapy sessions. The art therapist used the same art therapy technique with each patient during the first encounter; afterward the relationship would evolve in different ways according to the patients' needs. A psychologist interviewed a randomized group of 54 patients after the chemotherapy treatment using a semi structured questionnaire. Out of the 54 patients, 3 found art therapy "not helpful" ("childish," "just a chat," "not interesting"). The other 51 patients described their art therapy experience as "helpful." From patients' statements, three main groups merged: art therapy was perceived as generally helpful (e.g., "relaxing," "creative"; 37.3%), art therapy was perceived as helpful because of the dyadic relationship (e.g., "talking about oneself and feeling listened to"; 33.3%), and art therapy was perceived as helpful because of the triadic relationship, patient-image-art therapist (e.g., "expressing emotions and searching for meanings"; 29.4%). These data have clinical implications, as they show that art therapy may be useful to support patients during the stressful time of treatment and reduce anxiety.

**Geue K (2020)** over the last few years several offers inpatient creative therapy interventions for patients have been developed implemented and researched. This article describes the content, concept and structure of art therapy interventions based on painting or drawing as well as some further methodical procedures and research results of art therapy. Of 56 manuscripts, 17 papers reporting 12 research projects were included. The art therapy interventions differ from each other considerably in their content and structure. The variance in the study design of the papers was also high. More females than males participated in the interventions. The papers dealt with a variety of questions. A total of seven quantitative papers focused on mental health. A decrease in anxiety and depression was noted in six of these. Three papers documented an increase in quality of life. Moreover, four qualitative papers indicated positive effects on personal growth, coping, the development of new form of self-expression, and social interaction. Three papers with qualitative methods investigated participants' mechanisms for coping with their disease.

**A.C. Svensk (2020)** the study reports the effect of an art therapy intervention among 41 patients undergoing treatment for cancer. The patients were randomized to an intervention group with individual art therapy sessions for 1 h/week ( $n = 20$ ), or to a control group ( $n = 21$ ).The WHO QOL-BREF and Quality

of Life Questionnaire, were used for QoL assessment, and administrated on three measurement occasions, before the start of radiotherapy and 2 and 6 months later.

The results indicate an overall improvement in QoL aspects among patients in the intervention group. A significant increase in total health, total QoL, physical health and psychological health was observed in the art therapy group. A significant positive difference within the art therapy group was also seen, concerning future perspectives, body image and systemic therapy side effects.

**Curry and Kasser,(2020)**This study examined the effectiveness of different types of art activities in the reduction of anxiety. After undergoing a brief anxiety-induction, 84 undergraduate students were randomly assigned to color a mandala, to color a plaid form, or to color on a blank piece of paper. Results: ANOVA results demonstrated that anxiety levels declined approximately the same for the mandala-andplaid-coloring groups ( $p<.32$ ). Both of these groups experienced more reduction in anxiety than did the unstructured-coloring group ( $p<.001$ ).

**Nancy Nainis (2020)** Art therapy has been used in a variety of clinical settings and populations, although few studies have explored its use in School going children patients. The specific aim of this study was to determine the effect of a 1-hour art therapy session on anxiety and other symptoms common to School going children inpatients. A quasi-experimental design was used ( $n=50$ ). The Edmonton Symptom Assessment Scale (ESAS) and the Spielberg State-Trait Anxiety Index (STAI-S) were used prior to and after the art therapy to quantify symptoms, while open-ended questions evaluated the subjects' perceptions of the experience.

## SECTION C: LITERATURE RELATED TO ANXIETY AND ART THERAPY

**Freda .A. Jones (2017)** conducted a experimental study on the role of Art therapy in health anxiety. This experimental study investigated the effects of Art therapy on patients who had been identified as demonstrating health concerns. The 40 participants were randomly allocated to two groups, one receiving art therapy and the other not. Half the patients had a medically diagnosed problem. Anxiety was assessed before and after the art therapy intervention. Patients in the art therapy group showed reduced levels of anxiety at post-test, even when they also had an identifiable physical problem. These results are consistent with the idea that self-help materials can be an effective and accessible intervention in reducing anxiety level.

**Felter,Puig (2017)** conducted a study at department of pediatrics, Oregon, US among 60 children between the age group of 8-13 years for assessing the effectiveness of children's art therapy- handbook for pre surgical preparation in reducing the pre-operative anxiety. The results showed that the art therapy group had a significant reduction in preoperative anxiety. When analysed the association of demographic variables, age showed a statistically significant in level of anxiety comparing before and after the intervention.



**Cutforth, Nancy Bohne(2017)** an experimental study was conducted to examine the effect of group art therapy on the anxieties of children in grades one, two, and three. The total sample contained 295students. Treatments were randomly assigned to the groups. Control Group II received non-Art therapeutic treatment. Whereas Experimental Group received Art therapeutic treatment .All children participating in the study were administered a pretest. The instrument used was Sarason’s General Anxiety Scale for Children. Each group was read three appropriate books by the investigator each session for ten sessions. Immediately following the five-week experimental period, a post test was administered to all the children. The study concluded that reading Art therapeutic drawing lessen their anxieties.

**McKenna, Heveyd(2018)** an experimental study was conducted to evaluate the effectiveness of art therapy on patients with mild to moderate anxiety in primary care. Non-parametric statistical testing of scores from the Zung Anxiety Scale and the Clinical Outcomes in Routine Evaluation (CORE) questionnaire indicated positive results. There was significant improvement at post-treatment. The results from this trial indicate that it is an effective treatment for managing and treating anxiety in primary care.

**Kupshik GA, Fisher. CR (2019)** conducted a study ineffectiveness of art therapy for moderate anxiety disorders among 120children age between 8 to 12 years. In this study, selected patients were supported in learning skills to manage their symptoms. This approach was efficient, acceptable, and led to clinically significant symptom reduction for a high proportion of patients. This improvement was well sustained at three-month follow-up.

## CHAPTER III

### METHODOLOGY

#### RESEARCH METHODOLOGY

The research overall plan for obtaining answer to the question, being studied, and for obtaining some of the result and the difficulties encountered during the research process are called the research design. The design spells out the basic strategies that all the researchers adopt to develop information that is accurate and interpretable.

- **POLIT. HUNGER (2007).**

This chapter deals with the methodology adopted for the study. It include research approach, research design, setting, criteria for sample, sampling technique, tool methods of data collection and data analysis

## RESEARCH APPROACH

Research approach is the most significant part of any research. The appropriate choice of the research approach depends on the purpose of the research study which is undertaken

- **CELIIA.E.WILLIS (2004).**

In this study quantitative evaluative research approach will be used to assess the level of anxiety among school age children.

## RESEARCH DESIGN

The research design is the plan, structure and strategy of investigations of answering the research question is the overall plan or blue print the researchers select to carry out their study.

- **BASAVANTHAPPA. BT (2019).**

Quasi experimental before and after control group only design was selected to evaluate the effectiveness of Anxiety among school children in experimental and control group.

**Table 3.1 Diagrammatic Representation Research Design.**

Conveniently Selected Samples	Pre test	Intervention	Post test
Experimental Group	O <sub>1</sub>	X	O <sub>3</sub>
Control Group	O <sub>2</sub>	-	O <sub>4</sub>

**O<sub>1</sub>** - Pre test assessment of level of anxiety by using multi-dimensional anxiety scale for Experimental Group

**O<sub>2</sub>** - Pre test assessment of level of anxiety by using multi-dimensional anxiety scale for Control Group

**X** - Intervention art therapy

**O<sub>3</sub>** - Post test assessment of level of anxiety by using multi-dimensional anxiety scale for Experimental Group

**O<sub>4</sub>** - Post test assessment of level of anxiety by using multi-dimensional anxiety scale for Control Group

## SETTING OF THE STUDY

Research setting is places in a research where data collection is to be made. The selection of setting was done based on feasibility of conducting the study, availability of subject and permission of authorities, **(Polit & Hungler, 1999)**.

The study was conducted in Keelapuliyur and Sirugudal Villages, which is located 12 km from Perambalur. School age children's were in these villages aroundly about 150. We are taking 15 school age children's for Experimental group from Keelapuliyur village and 15 school age children's for control group from Sirugudal.

## VARIABLES

An attribute that varies, that is, takes opn different values, **(Polit & Beck, 2011)**

## INDEPENDENT VARIABLE

In this study independent variable was Art therapy.

## DEPENDENT VARIABLE

In this study dependent variable was anxiety.

## POPULATION

A population is defined as the "entire set of the individual object having some common characteristics"

- **DESNISEF. POLIT (2011)**.

The population for the present study was School Age children.

## SAMPLE

Sample is a part or subset of population selected to participate in the research study.

- **POLIT&BECK (2017)**

In this study samples were school Age children at Keelapuliyur and Sirugudal from Perambalur district who meet the inclusion criteria.

## **SAMPLING TECHNIQUE**

Sampling technique refers to the process of selecting the population to represent the entire population. **(POLIT & BECK (2017))**

Convenient sampling technique define most commonly fast, inexpensive, easy and subjects are readily available. **(Suresh K.Sharma, 2018)**

For this study, we are assessing School age children's who are all having Anxiety in the age of 6 to 12 was selected by convenient sampling technique.

## **SAMPLE SIZE**

The number of items to be selected from the universe to constitute a sample.

- **SHIVANI SHARMA (2010)**

Sample size was 30 school age children who fulfilled the inclusion criteria assigned out of 30, 15 school age children from Keelapuliyur village was assigned for experimental group 15 School ages Children from Sirugudal Village was assigned for control group.

## **ELIGIILITY CRITERIA**

### **Inclusion Criteria**

The school age children who were,

- aged between 6-12 Yrs.
- both males and female.
- interest to participate.
- Understand the art therapy.

### **Exclusion Criteria**

The school age children who were,

- not available during data collection period.
- sick during data collection period.
- not interested .
- not cooperate for data collection.
- diagnosed as mentally retarded.

## DEVELOPMENT AND DESCRIPTION OF TOOLS

Tools development is a complex and time consuming process. It consist of defining the construct to be measured, formulating the items, assessing the items the content validity, developing instruction was respondents, pre –testing estimating the reliability and conducting pilot study.

- **POLIT & HUNGER, (2009).**

### Development of the tool

The tool comprised of multi-dimensional anxiety scale is to assess the practices regarding care of school age children in art therapy age group between 6-12 years. It had 2 sections of A & B.

#### Section A

Demographic Variable such as age Gender, Grade in school, Type of family, Academic performance, Parental Attention and the Practice.

#### Section B

The multidimensional anxiety scale was designed to assess the level of anxiety before and after intervention. It contains totally 39 and questions, which was comprehensively scored as often 3, sometimes 2, rarely 1, never 0.

### Description of the tool

The scoring was designed as follow with regards to the structural interview questionnaire, each questions had 4 responses every question have scoring like Usually option have 3 marks, Often option have 2 marks, Occasionally option have 1mark and No anxiety don't have any marks.

### Scoring Key

LEVEL OF ANXIETY	SCORING
No anxiety	0
Occasionally	(1- 39 )
Often	(40-78)
Usually	(79-117)

### VALIDITY

In quantitative research, the ability of a data gathering instrument to measure what it purports to measure.

- **BASAVANTHAPPA. BT (2019).**

The content validity of the demographic variables and knowledge questions was validated in Art therapy consultation with guide the experts were Pediatric Nursing Specialist, Psychotherapist,

Psychologist and Statistician. The tool was modified according to the suggestion and recommendation of the experts.

## RELIABILITY

In quantitative research, the measure of the extent to which random variation may have influenced stability and consistency of results.

- **POLIT & T. BECK (2017).**

The reliability of the multidimensional anxiety questionnaire scale was established by test-retest method and reality. Hence the tool was reliable and it was used for the study. To ensure the reliability of the tool, it has been administered to their children with anxiety. The reliability of the modified multi-dimensional anxiety scale was established by inter rater reliability method. Hence the tool was reliable and it was used for the study, ( $r^1 = 0.93$ ).

## PILOT STUDY

Pilot study is a small scale version on trial run done in preparation for a major study, (**Polit and Hungler, 2011**)

The researcher got permission from Principal and Research ethical committee of Dhanalakshmi Srinivasan College of Nursing and Head of the Department of Pediatric. A formal permission was obtained from the President of Ammapalayam and kalarampatti. A pilot study was conducted in the anxiety of school age children's. The subjects were contacted individually and the purpose of the study was explained to them and they were assured that the data collected will be confidential. Written consent was taken from the study samples. Three samples were selected according to the inclusion criteria by using convenient sampling technique. The level of anxiety of school age children's with the scale of Multi-dimensional anxiety scale. The same procedure has to be repeated for duration of 5-10 minutes for every art therapy procedure. After intervention, the level of anxiety of school age children's was assessed using the same tool on the second day. The pilot study was found feasible to conduct the study.

## PROCEDURE FOR DATA COLLECTION

### Ethical Consideration

A proposed study was approved by the dissertation committee of Dhanalakshmi Srinivasan College of Nursing affiliated by the Tamil Nadu Dr.MGR medical University, Chennai and permission was obtained from the in charge of the Keelapuliyur. Assurance was given to the participant that confidentiality of each individual will be maintained.

## **Pre test**

The children were selected from Keelapuliyur and Sirugudal Village, using convenient sampling method was allotted as experimental group (Keelapuliyur) and control group (Sirugudal). The investigator introduced him to the subjects and developed good rapport with them. Confidentiality was maintained for each sample while collecting data from each child. Pretest score was assessed both in experimental and control group by using multi-dimensional anxiety.

## **Intervention**

Each School going children was given Art therapy at the duration of 20 minutes 5 times/day for 3 consecutive days for the experimental group whereas the control group received routine care.

## **Post test**

The post test of pain in experimental and control group were assessed on the third day using multi-dimensional anxiety Scale. Each day 3 per day for three days samples were given Art therapy. The collection of data was performed within the stipulated time of 4 weeks.

## **PLAN FOR DATA ANALYSIS**

Both descriptive and inferential statistics were used to analyze and interpret the data.

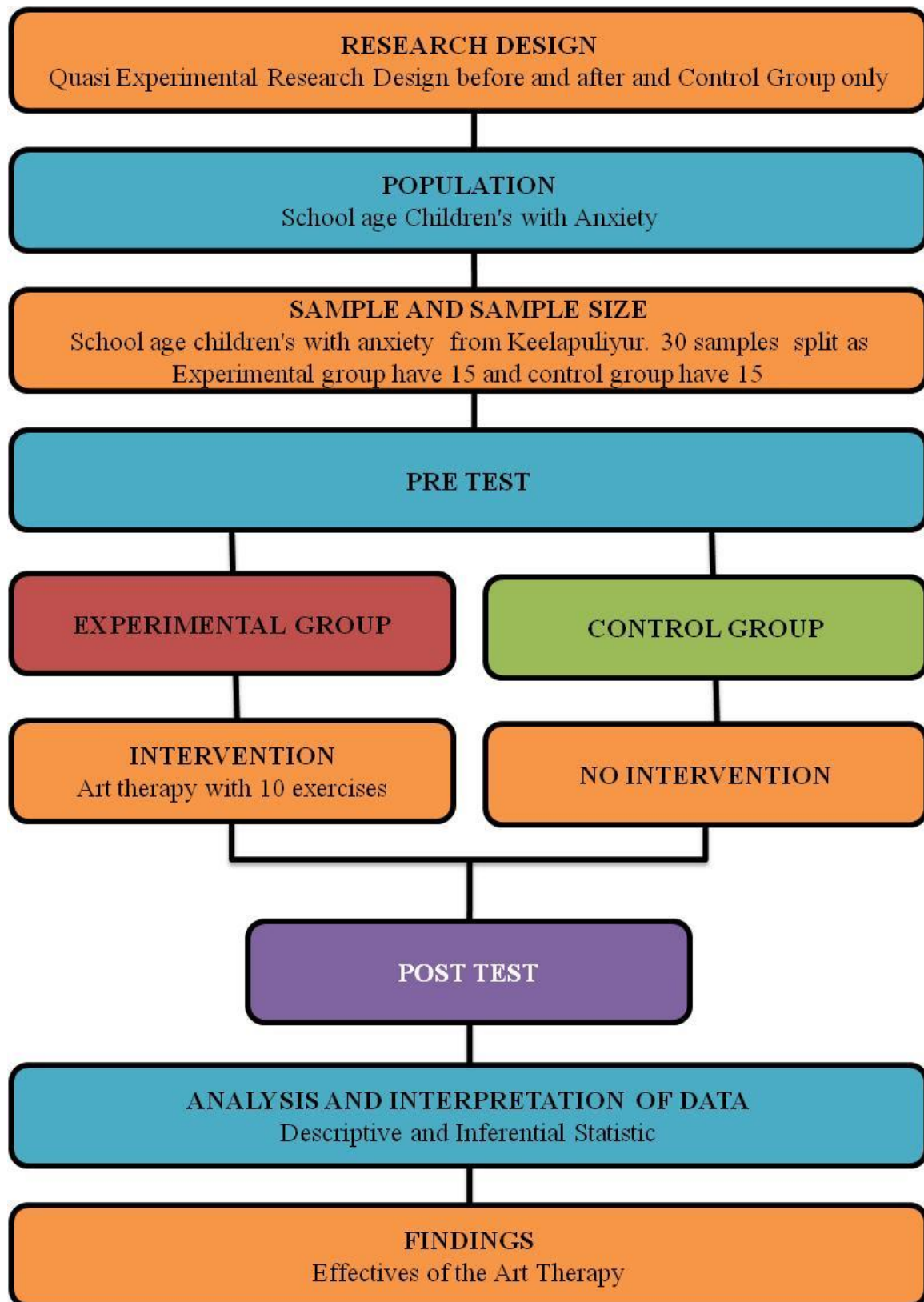
### **Descriptive Statistics**

- Frequency and percentage distribution were used to analyze the demographic variables.
- Mean and standard deviation were used to analyze the level of anxiety in pre and post test scores.

### **Inferential Statistics**

- Paired “t” test and independent ‘t’ test was used for analyzing the effectiveness of Art therapy on School going children between experimental and control group.
- Chi- Square test was used to find out the association of demographic variables on level of anxiety in experimental group.

FIGURE 3.1 SCHEMATIC PRESENTATIONS





## CHAPTER IV

### ANALYSIS AND INTERPRETATION

Analysis and interpretation of the data is the most important phase of the research process, which involves computation of the certain measures along with searching for pattern of relationship that exists among data groups. It includes compilation, editing, coding, classification and presentation of data. The main purposes of analysis of data are to make the raw data meaningful, to estimate parameters of collected data, to test the hypothesis, to test the statistical significance of the data, to draw inferences and make the generalization. (Suresh K Sharma, 2014)

This chapter deals with the analysis and interpretation of the collected data from school age children's from Keelapuliyur and Sirukudal Villages to assess the Art therapy among school age children's with anxiety.

The findings of the study are presented in four sections and are as follows:

#### **SECTION A: Distribution of demographic variables of children with Anxiety.**

- ✓ Frequency & percentage distribution of demographic variables of children with Anxiety.

#### **SECTION B: Assess the level of children with Anxiety in experimental group**

- ✓ Frequency and percentage distribution of pretest & posttest scores of children with Anxiety in experimental group.

#### **SECTION C: Evaluate the effectiveness of children with Anxiety. In experimental group.**

- ✓ Frequency of Paired 't' test value of Art therapy among school age children with Anxiety in Experimental and Control group.
- ✓ Frequency of Unpaired 't' test value of Art therapy among school age children with Anxiety in Experimental and Control group.
- ✓ Frequency of Comparison of mean, SD and mean percentage of Art therapy among school age children's with anxiety

#### **SECTION D: Find out the association between the post tests levels of children with Anxiety with their demographic variables in experimental group.**

- ✓ Frequency of Chi square between Experimental group post test scores of children with Anxiety demographic variables in experimental group
- ✓ Frequency of Chi square between Experimental group post test scores of children with Anxiety demographic variables in control group.

Towards the attainment of the above objectives, the raw data were collected and they were presented in tabular and graphical form for statistical analysis in subsequent pages.

### SECTION A: Distribution of demographic variables of children with Anxiety.

Table 4.1 Frequency & percentage distribution of demographic variables of children with Anxiety.

n = 30

S.No	Demographic Details	Frequency (n)	Percentage %	Frequency (n)	Percentage %
<b>1</b>	<b>Age</b>				
	a) 6 to 8yrs	6	40%	6	40%
	b) 8.1 to 10yrs	2	13%	2	13%
	c) 10.1 to 12yrs	7	47%	7	47%
<b>2</b>	<b>Gender</b>				
	a) Male	5	33%	5	33%
	b) Female	10	67%	10	67%
<b>3</b>	<b>Grade in school</b>				
	a) 1st to 3rd std	5	33%	5	33%
	b) 4th to 6th std	4	27%	4	27%
	c) 7th std	6	40%	6	40%
<b>4</b>	<b>Type of family</b>				
	a) Nuclear	5	33%	5	33%
	b) Joint	7	47%	7	47%
	c) Extended	2	13%	2	13%
	d) Single parent family	1	7%	1	7%
<b>5</b>	<b>Academic performance</b>				
	a) Good	4	27%	4	27%
	b) Average	10	67%	10	67%
	c) Poor	2	13%	1	7%
<b>6</b>	<b>Parental Attention</b>				
	a) Parent	8	53%	8	53%
	b) Grand parent	4	27%	4	27%
	c) Relatives/Neighbours	3	20%	3	20%
	d) None	0	0%	0	0%

Table 4.1 reveals that the frequency and percentage distribution of demographic variables of children with Anxiety.

Figure 4.1 shows the distribution of the children with Anxiety, according to their age where highest percentage (47%) were in the age group of 10year 1month to 12 years, 6 to 8 years childrens are 40% whereas the lowest percentage of (13%) were in the group of 8year 1month to 10years.

Figure 4.2 shows the distribution of the children with Anxiety, according to their age where highest percentage (63%) were in the gender group of Female childrens, whereas the lowest percentage of (37%) were in the group of Male children.

Figure 4.3 shows the distribution of the children with Anxiety, according to their grade in school where highest percentage (40%) were in the school grade group of 7<sup>th</sup> standard, 1<sup>st</sup> to 3<sup>rd</sup> grade childrens are 33% whereas the lowest percentage of (27%) were in the group of 4<sup>th</sup> to 6<sup>th</sup> grade childrens.

Figure 4.4 shows the distribution of the children with Anxiety, according to their type of family where highest percentage (47%) were in the family group of joint family, Nuclear family with 47%, Extended family have 10% whereas the lowest percentage of (7%) were in the group of Single parent family.

Figure 4.5 shows the distribution of the children with Anxiety, according to their academic performnace group where highest percentage (63%) were in the Average performer, Good performer with 27%, whereas the lowest percentage of (10%) were in the group of Poor performer.

Figure 4.6 shows the distribution of the children with Anxiety, according to their Parental attention where highest percentage (50%) were in the Parent influences, Grand Parent attention with 43%, whereas the lowest percentage of (7%) were in the group of Relative and Neighbours influencing.

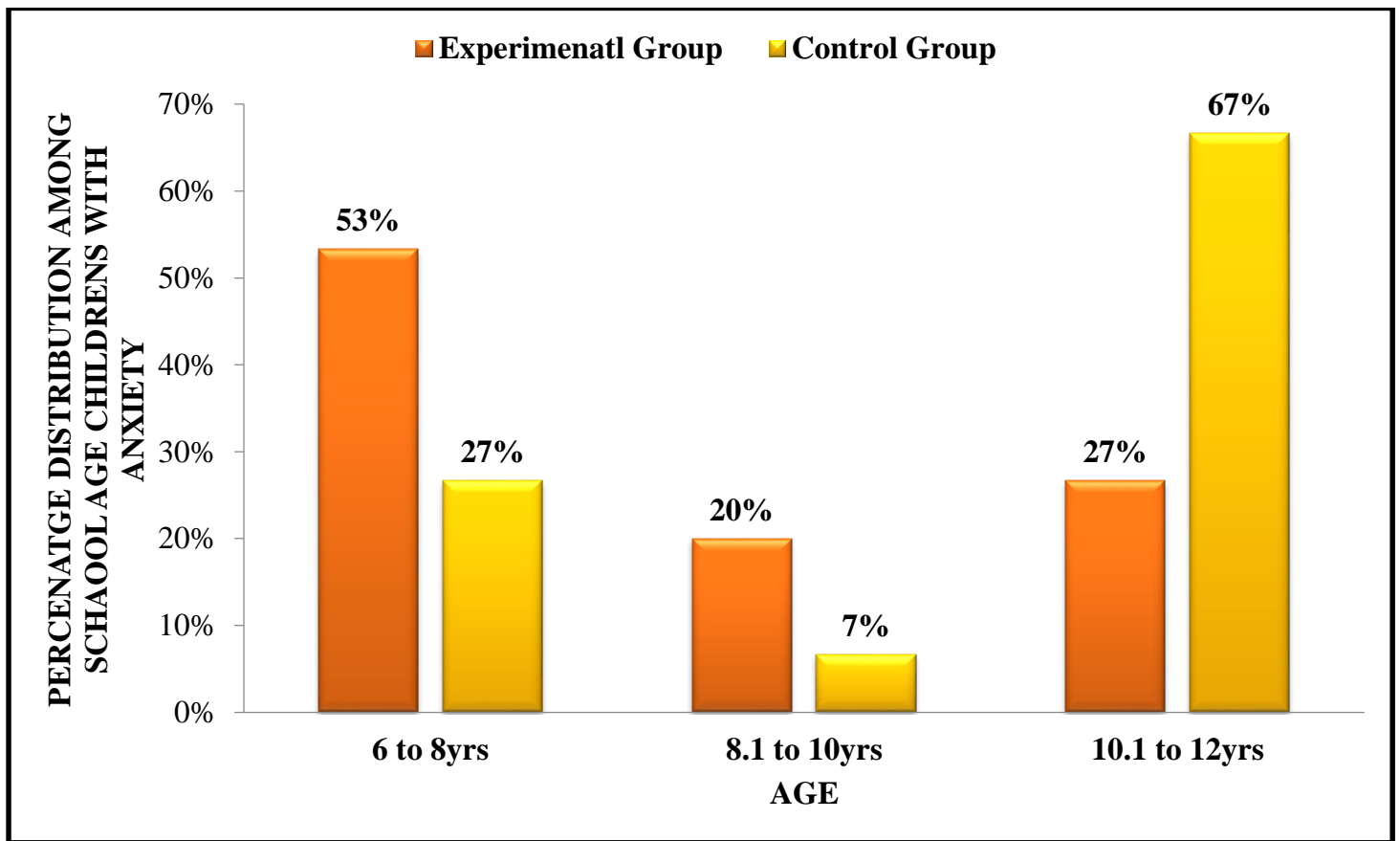


Figure 4.1 Bar Diagram shows the percentage distribution of Age among children with Anxiety

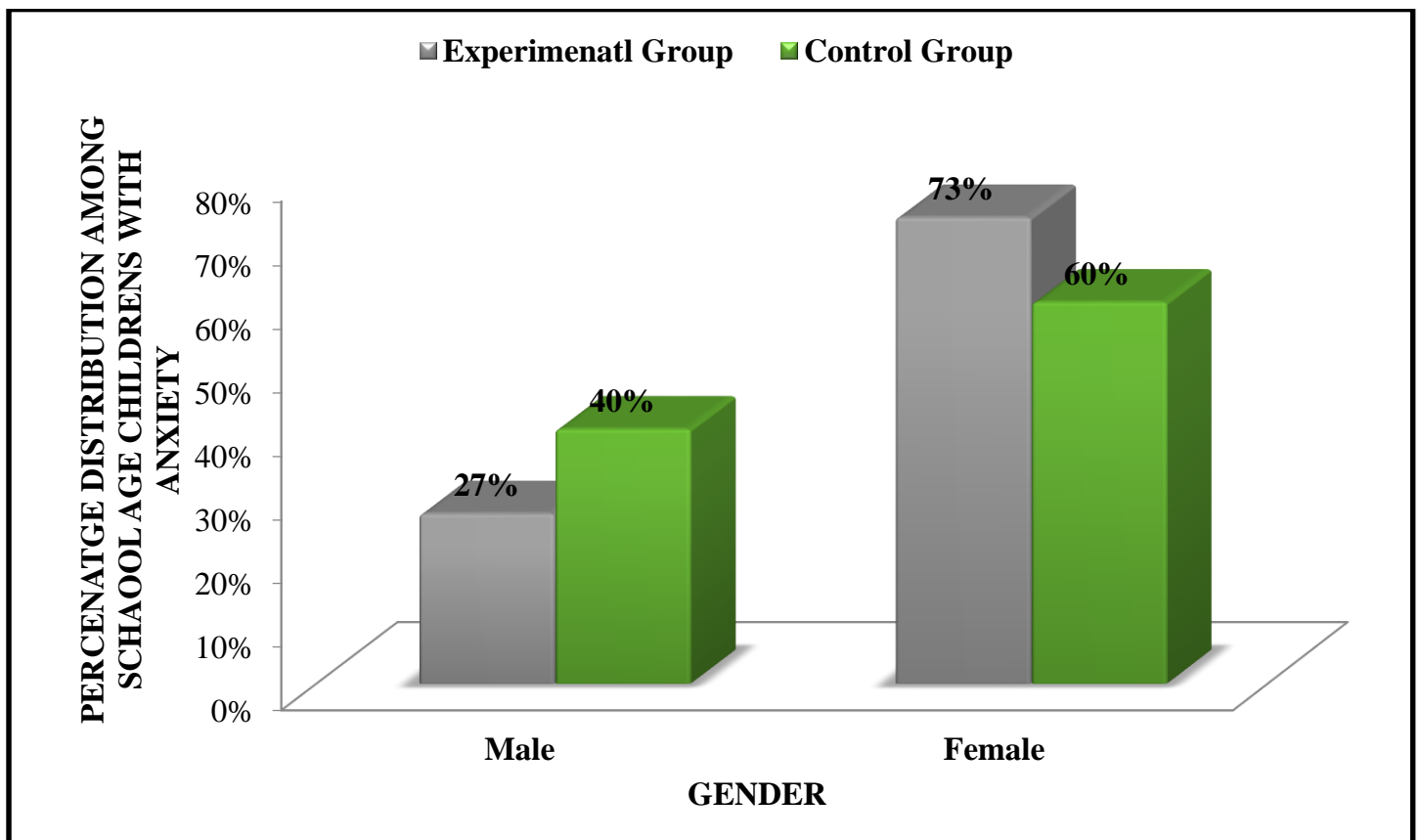


Figure 4.2 3D Clustered Diagram shows the percentage distribution of Gender among children with Anxiety

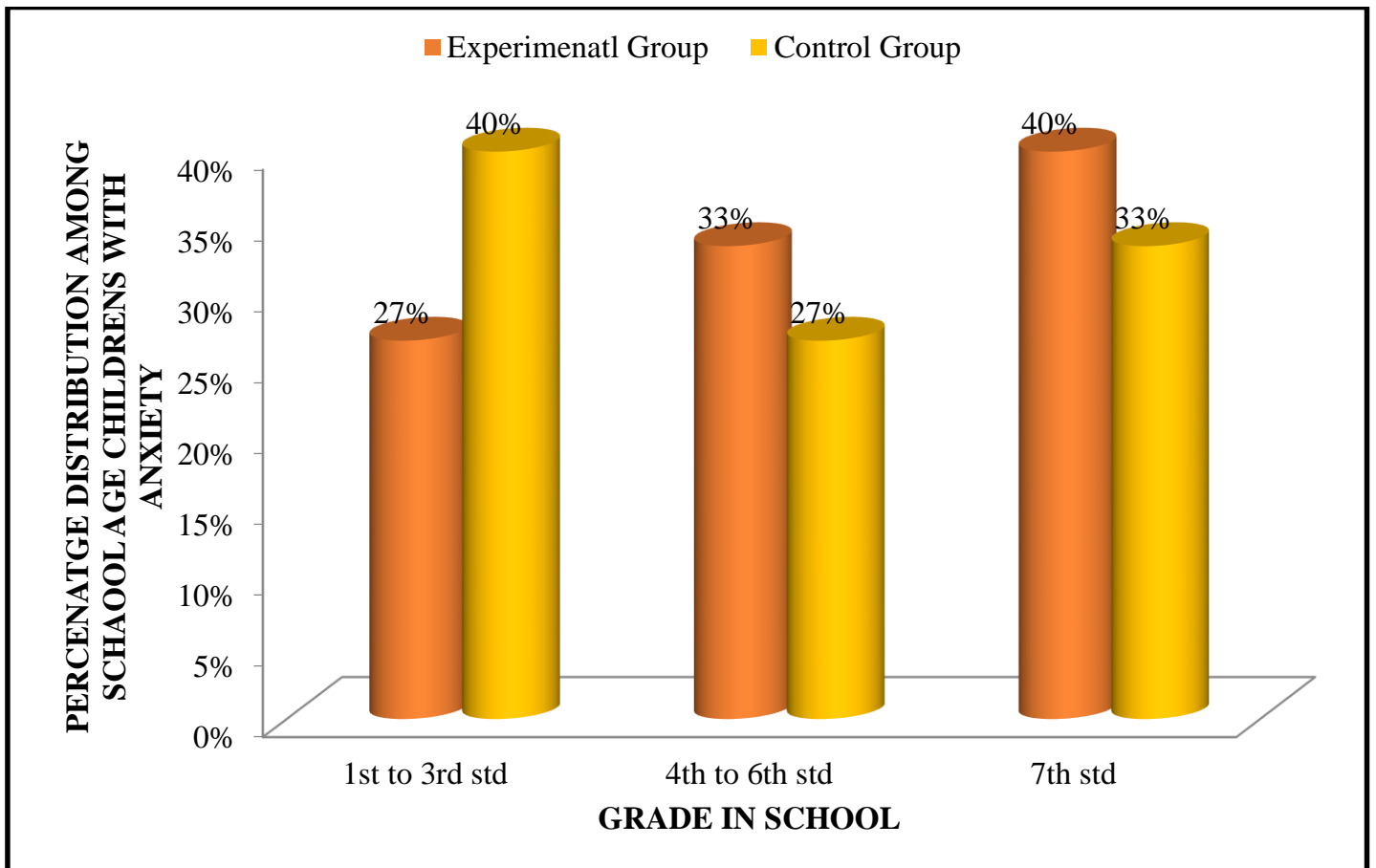


Figure 4.3 Cylindrical Diagram shows the percentage distribution of Grade in school among children with Anxiety

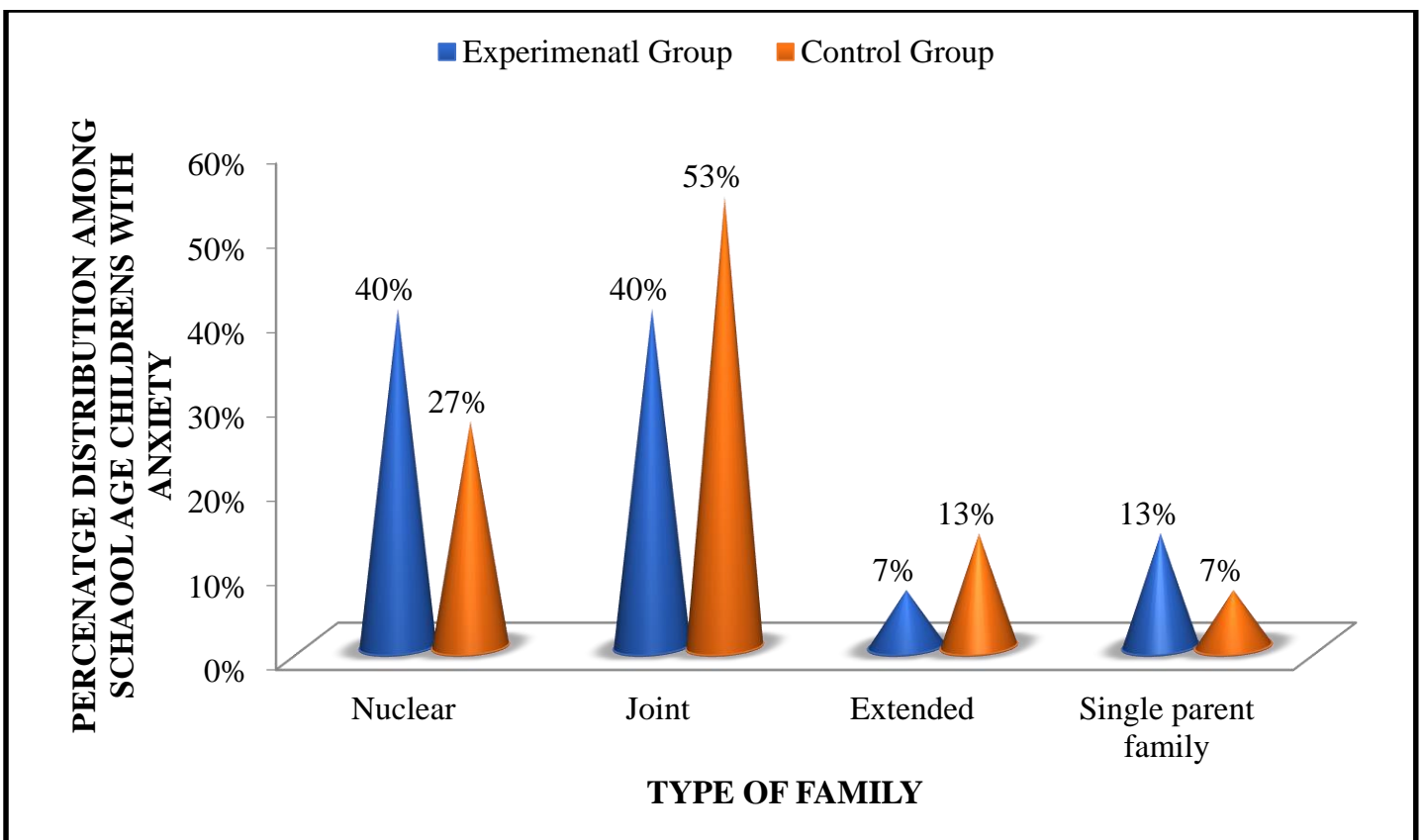


Figure 4.4 Conical Diagram shows the percentage distribution of Age among children with Anxiety

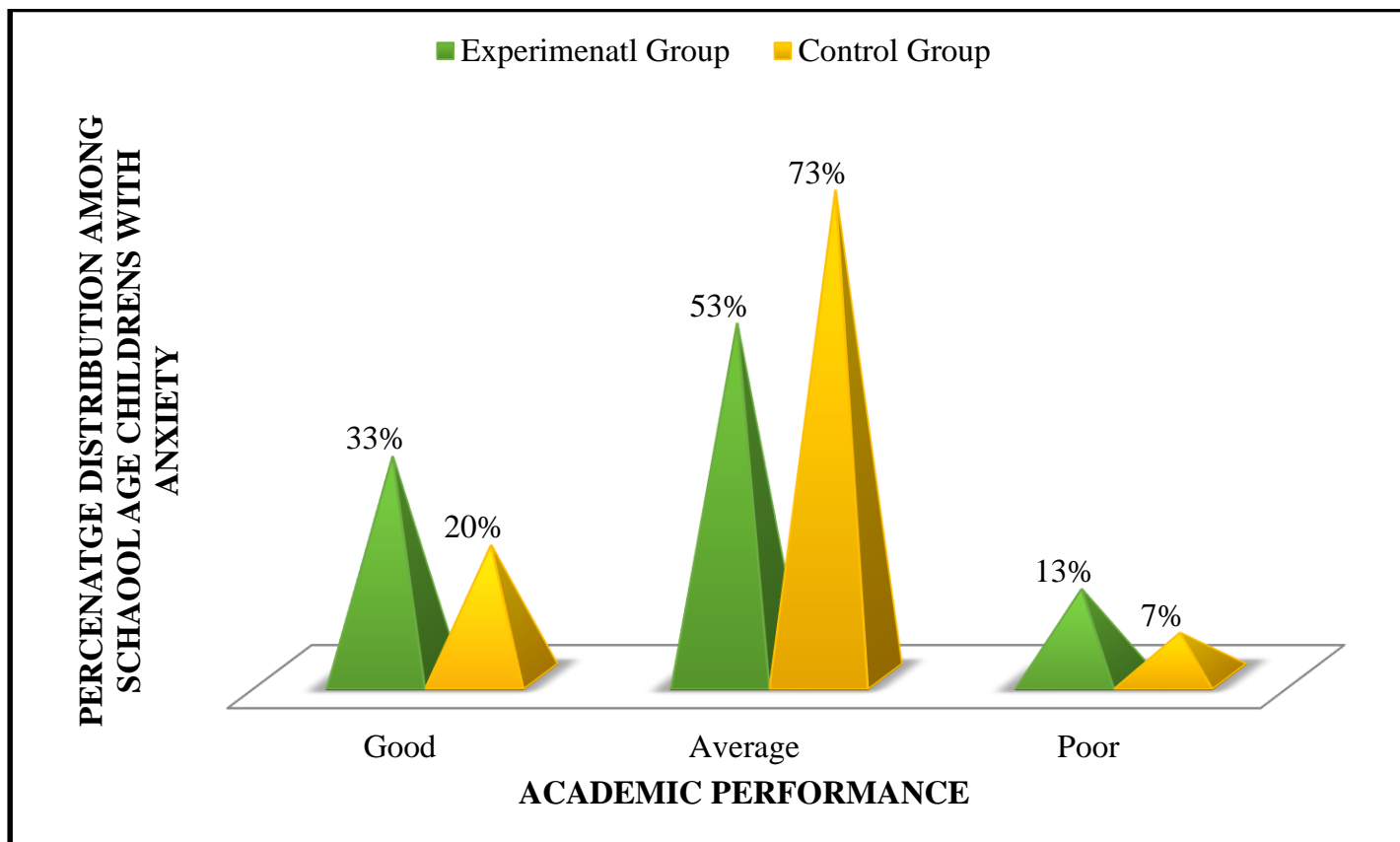


Figure 4.5 Pyramid Diagram shows the percentage distribution of Academic performance among children with Anxiety

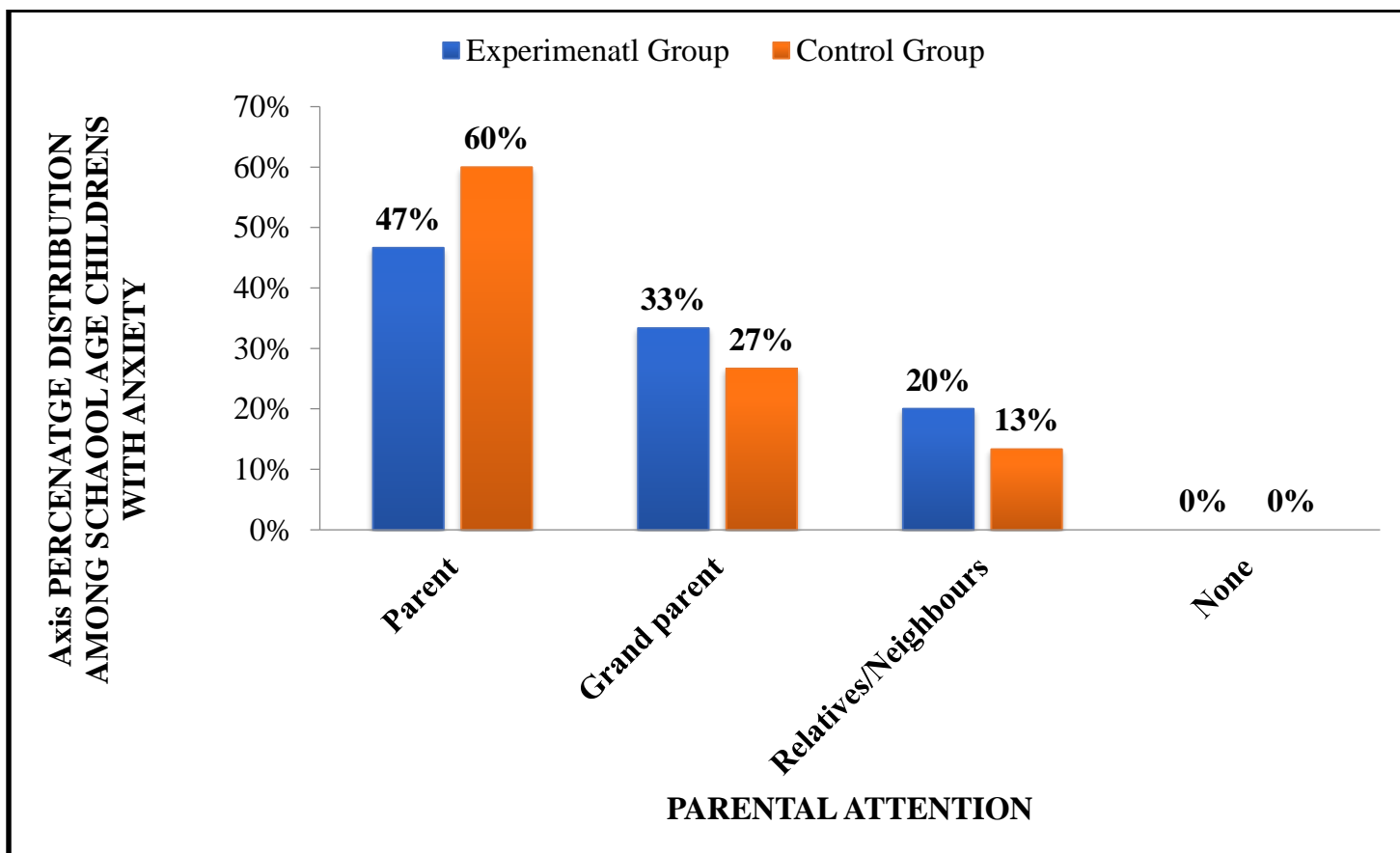


Figure 4.6 3D Bar Diagram shows the percentage distribution of Parental attention among children with Anxiety

**SECTION B: Assess the level of children with Anxiety in experimental group.**

Table 4.2 Frequency and percentage distribution of pretest &amp; posttest scores of children with Anxiety in experimental group.

(n<sub>1</sub>=15, n<sub>2</sub>=15)

S.No	Level of Art Therapy	Experimenatl Group				Control Group			
		Pre test		Post test		Pre test		Post test	
		Frequency	%	Frequency	%	Frequency	%	Frequency	%
1	No anxiety	2	13%	10	67%	1	7%	1	7%
2	Occasionally	5	33%	5	33%	8	53%	9	60%
3	Often	5	33%	0	0%	4	27%	3	20%
4	Usually	3	20%	0	0%	2	13%	2	13%

**Table 4.2:** shows the Experimental group, Frequency and percentage distribution of pre-test and post-test scores of Art therapy among the school age children's with anxiety, for experimental group in pre-test most 5 (33%) of them having occasionally and oftenly anxiety, 3 (20%) of them having usually have anxiety and there is no anxiety problem occurs for 2 (13%). Whereas in post-test majorities 10 (67%) of them don't having anxiety and 5 (33%) were having anxiety occasionally. It seems that Art therapy among school age children with anxiety was effective.

For Control group, Frequency and percentage distribution of pre-test and post-test scores of Art therapy among the school age children's with anxiety, group in pre-test most 8 (53%) of them having occasionally anxiety, 4 (27%) of them having often have anxiety, Usual occurrence of anxiety with 2 (13%) and there is no anxiety problem occurs for 1 (7%). Whereas in post-test most 9 (60%) of them having occasionally anxiety, 3 (20%) of them having often have anxiety, Usual occurrence of anxiety with 2 (13%) and there is no anxiety problem occurs for 1 (7%). It seems that Art therapy among school age children with anxiety was not effective without intervention.

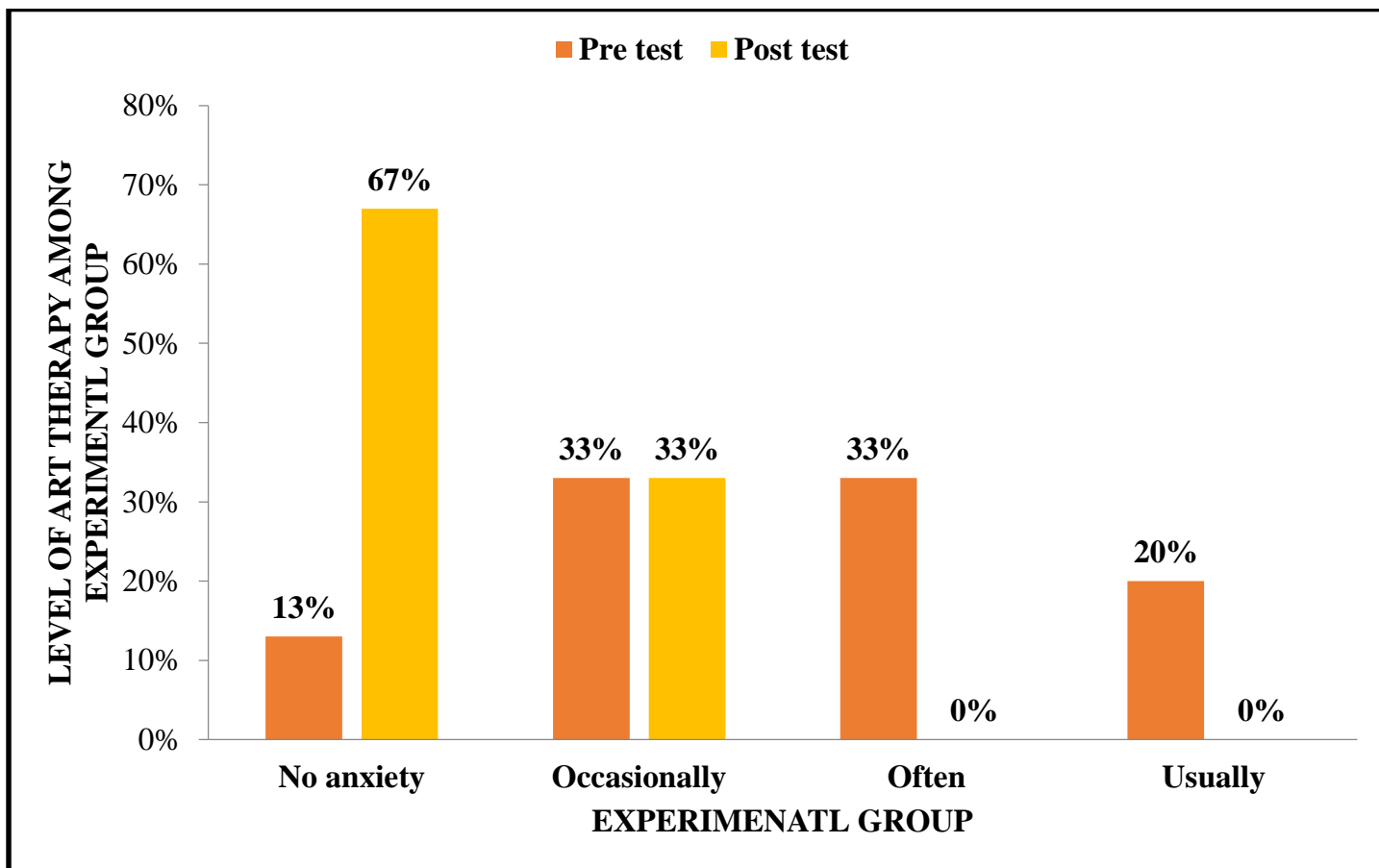


Figure 4.7 Bar diagram shows level of art therapy among school age children’s with anxiety in Experimental group

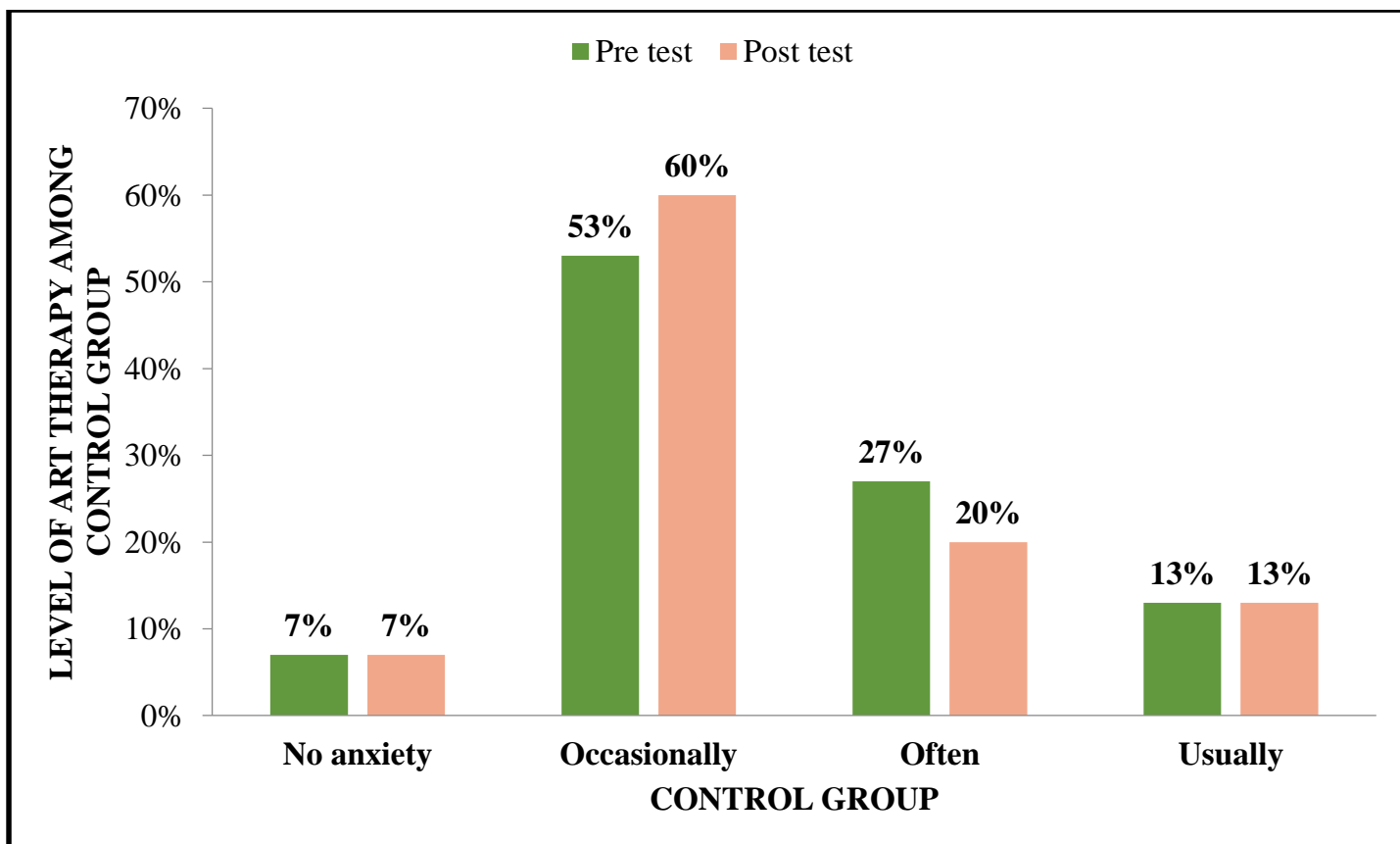


Figure 4.8 Bar diagram shows level of art therapy among school age children’s with anxiety in Control group



**SECTION C: Evaluate the effectiveness of children with Anxiety. In experimental group.**

Table 4.3 Paired 't' test value of Art therapy among school age children with Anxiety in Experimental and Control group.

Level of Art therapy	Paired 't' test value	Table Value	Level of Significant (p)
Experimental & Control Group	4.2423	0.05	p<0.05

**Table 4.3** show that, paired 't' test was calculated to analyse the show to effectiveness between pre and post test scores of Art therapy intervention among school age children with anxiety. The paired 't' test value was 4.2423 for experimental group. When compare to table value (0.05) it was high. This shows that there was a Significant relationship between pre and post test scores of Art therapy intervention among school age children with anxiety. It seems that Art therapy among school age children with anxiety was effective.

Table 4.4 Unpaired 't' test value of Art therapy among school age children with Anxiety in Experimental and Control group.

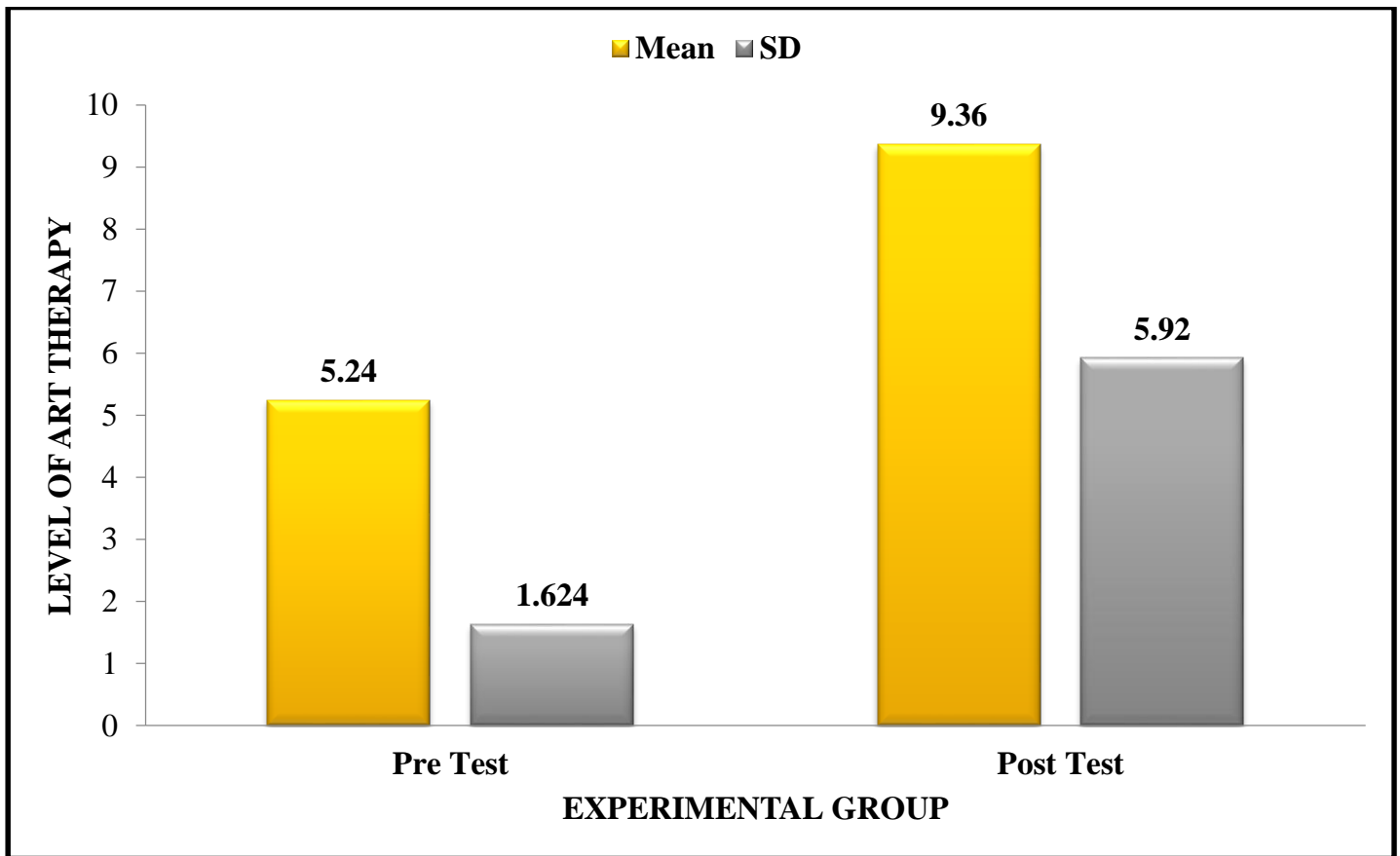
Level of Art therapy	Unpaired 't' test value	Table Value	Level of Significant (p)
Experimental & Control Group	3.658	0.05	p<0.05

**Table 4.4** shows that unpaired 't' test was calculated to analyse the effectiveness between school age children with anxiety pre and post test scores on level Art therapy among both groups. It seems that there was a significant effectiveness of art therapy among school age children with anxiety.

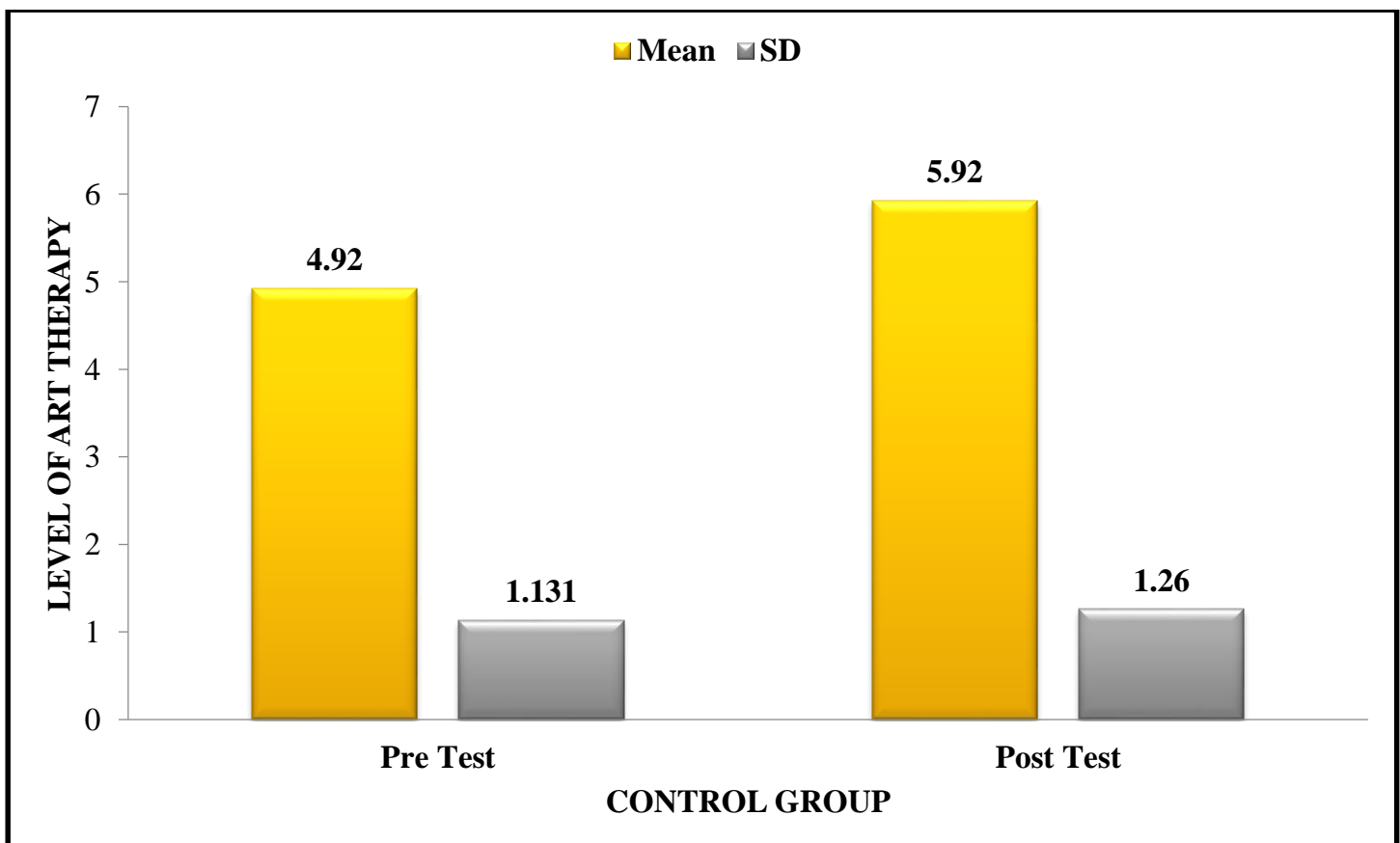
Table 4.5 Comparison of mean, SD and mean percentage of Art therapy among school age childrens with anxiety

S.No	Level of Art Therapy	EXPERIMENTAL GROUP			CONTROL GROUP		
		Mean	SD	Mean Difference	Mean	SD	Mean Difference
1	Pre Test	5.24	1.624	4	4.92	1.131	2
2	Post Test	9.36	5.92		5.92	1.26	

**Table 4.5** shows the comparison of mean, SD and mean percentage of school age children with anxiety pre-test and post-test Scores of art therapy that, in experimental group, pre-test mean score was ( $5.24 \pm 1.624$ ), which is 4%, whereas in post-test the mean scores ( $9.36 \pm 5.92$ ), which is 2%, showing a difference of 1.75%. In control group, pre-test the mean scores was ( $4.92 \pm 1.131$ ), which is 5%, whereas in post-test the mean scores was ( $5.92 + 1.26$ ), which is 2%, showing a difference of 3%. It seems that the Art therapy among school age children's with anxiety was effective.



**Figure 4.9:** Comparison of mean, SD and mean percentage of Art therapy among school age childrens with anxiety in Experuimental Group



**Figure 4.10:** Comparison of mean, SD and mean percentage of Art therapy among school age childrens with anxiety in Control Group

**SECTION D: Find out the association between the post tests levels of children with Anxiety with their demographic variables in experimental group.**

Table 4.7 Chi square between Experimental group post test scores of children with Anxiety demographic variables in experimental group.

Sl. No	Demographic Details	Children's with Anxiety				D.F	$x^2$	Table Value	Inference
		No Anxiety	Occasionally	Often	Usually				
<b>1</b>	<b>Age</b>								
	a) 6 to 8yrs	5	2	0	0	6	0.3	12.59	NS
	b) 8yrs 1 month to 10yrs	3	2	0	0				
c) 10yrs 1 month to 12yrs	2	1	0	0					
<b>2</b>	<b>Gender</b>								
	a) Male	3	3	0	0	3	4.23	7.82	NS
b) Female	7	2	0	0					
<b>3</b>	<b>Grade in school</b>								
	a) 1 <sup>st</sup> to 3 <sup>rd</sup> std	4	3	0	0	23	3.09	21.03	NS
	b) 4 <sup>th</sup> to 6 <sup>th</sup> std	5	1	0	0				
c) 7 <sup>th</sup> std	1	1	0	0					
<b>4</b>	<b>Type of family</b>								
	a) Nuclear	4	2	0	0	12	6.21	21.03	NS
	b) Joint	3	1	0	0				
	c) Extended	2	1	0	0				
d) Single parent family	1	1	0	0					
<b>5</b>	<b>Academic performance</b>								
	a) Good	5	2	0	0	3	2.08	7.82	NS
b) Average	3	1	0	0					

<b>6</b>	c) Poor	2	2	0	0	9	5.06	16.92	<b>NS</b>
	<b>Parental Attention</b>								
	a) Parent	6	1	0	0				
	b) Grand parent	3	1	0	0				
	c) Relatives/Neighbours	1	3	0	0				
d) None	0	0	0	0					

**Table 4.7** show the Chi- square was calculated to find out the association between post-test Art therapy scores of experimental group and their demographic variables. It reveals that there was a significant association between post test scores of Art therapy among school age children's with anxiety when associated with the demographic variables of age, gender, grade in school, type of family, academic performance and parental attention previous history of Anxiety ( $p < 0.05$ ). Whereas there was no Significant association was found between post test scores of art therapy among school age children with anxiety with their demographic among variables such as age, gender, grade in school, type of family, academic performance and parental attention of anxiety, ( $n > 0.05$ ). However, it seems that Art therapy among school age children with anxiety was effective to the experimental group of their demographic variables.

Table 4.8 Chi square between Experimental group post test scores of children with Anxiety demographic variables in control group.

Sl. No	Demographic Details	Children's with Anxiety				D.F	$x^2$	Table Value	Inference
		No Anxiety	Occasionally	Often	Usually				
<b>1</b>	<b>Age</b>					15	2.52	1.25	<b>NS</b>
	a) 6 to 8yrs	0	2	1	1				
	b) 8yrs 1 month to 10yrs	0	0	0	1				
	c) 10yrs 1 month to 12yrs	2	1	1	6				
<b>2</b>	<b>Gender</b>					8	4.6	1.875	<b>NS</b>
	a) Male	0	2	1	3				

<b>3</b>	b) Female	0	1	1	7				
	<b>Grade in school</b>								
	a) 1 <sup>st</sup> to 3 <sup>rd</sup> std	0	1	2	3				
<b>4</b>	b) 4 <sup>th</sup> to 6 <sup>th</sup> std	0	0	2	2	15	1.25	1.1875	<b>NS</b>
	c) 7 <sup>th</sup> std	0	3	1	1				
	<b>Type of family</b>								
	a) Nuclear	0	1	1	2				
<b>5</b>	b) Joint	0	0	3	5	15	0.94	1.808	<b>NS</b>
	c) Extended	0	0	1	1				
	d) Single parent family	0	0	0	1				
	<b>Academic performance</b>								
<b>6</b>	a) Good	0	0	1	2				
	b) Average	1	1	4	5	6	1.25	2.52	<b>NS</b>
	c) Poor	0	0	0	1				
<b>6</b>	<b>Parental Attention</b>								
	a) Parent	0	1	2	6				
	b) Grand parent	0	1	1	2	14	0.88	2.234	<b>NS</b>
	c) Relatives/Neighbours	0	0	1	1				
	d) None	0	0	0	0				

**Table 4.8** show the Chi- square was calculated to find out the association between post-test Art therapy scores of control group and their demographic variables. It reveals that there was a significant association between post test scores of Art therapy among school age children's with anxiety when associated with the demographic variables of age, gender, grade in school, type of family, academic performance and parental attention previous history of Anxiety ( $p < 0.05$ ). Whereas there was no

Significant association was found between post test scores of art therapy among school age children with anxiety with their demographic among variables such as age, gender, grade in school, type of family, academic performance and parental attention of anxiety, ( $n > 0.05$ ). However, it seems that Art therapy among school age children with anxiety was effective to the control group of their demographic variables.

## CHAPTER V

### DISCUSSION

This chapter deals with discussion which was based on the findings obtained from the statistical analysis and its relation to the objective of the study, theoretical framework and the literature review.

A Study to assess the effectiveness of Art Therapy on anxiety among school age children at selected villages, Perambalur.

The following were the objective of this study

#### OBJECTIVE

- To assess the level of anxiety before and after intervention in experimental & control group.
- To evaluate the effectiveness of art therapy on level of anxiety among school age children in experimental group.
- To find out the association between the post test level of anxiety among children with their selected demographic variable in experimental & control group.

**Objective 1: To assess the level of anxiety before and after intervention in experimental & control group.**

Frequency and percentage distribution of pretest & posttest scores of children with Anxiety in experimental group

#### Pre Test,

- ✓ 33% of them Often level of Children's with anxiety.
- ✓ 33% of them Occasional level of Children's with anxiety.
- ✓ 20% of them Usual level of Children's with anxiety.
- ✓ 13% of them don't have anxiety within Scholl age children's.

**Post Test,**

- ✓ None of them have anxiety Usually and oftenly
- ✓ 33% of them have anxiety occasionally
- ✓ 67% of them don't have anxiety after the intervention.

Frequency and percentage distribution of pretest & posttest scores of children with Anxiety in control group

**Pre Test,**

- ✓ 53% of them often level of Children's with anxiety.
- ✓ 27% of them Occasional level of Children's with anxiety.
- ✓ 13% of them Usual level of Children's with anxiety.
- ✓ 7% of them don't have anxiety within Scholl age children's.

**Post Test,**

- ✓ 60% of them have anxiety occasionally
- ✓ 20% of them have anxiety often.
- ✓ 13% of them have anxiety usually.
- ✓ 7% of them have no anxiety.

**Hypothesis 1:** There will be a significant difference in the level of anxiety before and after intervention in experimental. So Hypothesis  $H_1$ , is accepted.

**Objective 2: To evaluate the effectiveness of art therapy on level of anxiety among school age children in experimental group.**

Frequency and percentage distribution of pretest & posttest scores of children with Anxiety in experimental group.

- ✓ The Pretest mean children with Anxiety in experimental group was 5.24 with Standard Deviation 1.62.
- ✓ The Posttest mean children with Anxiety in experimental group was 9.36 with Standard Deviation 5.92.
- ✓ The paired 't' test value was 3.658.

Frequency and percentage distribution of pretest & posttest scores of children with Anxiety in contol group.

- ✓ The Pretest mean children with Anxiety in experimental group was 4.92 with Standard Deviation 1.131.



- ✓ The Posttest mean children with Anxiety in experimental group was 5.92 with Standard Deviation 1.26.
- ✓ The unpaired 't' test value was 4.2423.

**Hypothesis 2:** There will be a significant effectiveness of the art therapy level of anxiety among children in experimental group. So Hypothesis  $H_2$  is accepted.

**Objective 3: To find out the association between the post test level of anxiety among children with their selected demographic variable in experimental & control group.**

Chi square between post test scores of children with Anxiety demographic variables.

- ✓ Chi square was calculated to find out the association between the post test scores children with Anxiety and selected demographic of them.
- ✓ The other variables like age, gender, grade in school, type of family, academic performance and parental attention had no association with Children's with anxiety.
- ✓ There is a significant association between the post test level of anxiety among Children's with anxiety with their demographic variables.
- ✓ **So hypothesis  $H_3$  is accepted.**

## CHAPTER – VI

### SUMMARY, COCLUSION, IMPLICATION AND RECOMMEDATIONS

This chapter deals with summary of the study, its findings, conclusion and the implications for nursing administration, nursing practice, nursing education and nursing research. This study has been started with a few limitations and ends with suggestions and recommendation for research in future.

#### SUMMARY

The primary aim of the Study to assess the effectiveness of Art Therapy on anxiety among school age children at selected villages, Perambalur.

#### Objective of the study are

- ✓ To assess the level of anxiety before and after intervention in experimental & control group.
- ✓ To evaluate the effectiveness of art therapy on level of anxiety among school age children in experimental group.
- ✓ To find out the association between the post test level of anxiety among children with their selected demographic variable in experimental & control group.

## Hypothesis of the study are

- ✓ There will be a significant difference in the level of anxiety before and after intervention in experimental.
- ✓ There will be a significant effectiveness of the art therapy level of anxiety among children in experimental group.
- ✓ There is a significant association between the post test level of activities of daily living among Children's with anxiety with their demographic variables.

The review of literature on related studies helped the investigator to design the methodology, conceptual frame work and find out the tool. The literature review for the present study were presented under the following heading.

- ✓ Literature related to anxiety among children.
- ✓ Literature related to Art therapy.
- ✓ Literature related to the effectiveness of art therapy on Anxiety among school children.

The investigator adopted Health Belief Model is a good model for addressing problem behaviors that evoke health concerns, (Croyle RT, 2005). The reliability of the multidimensional anxiety questionnaire scale was established by test-retest method and reality. Hence the tool was reliable and it was used for the study. To ensure the reliability of the tool, it has been administered to their children with anxiety. The reliability of the modified multi-Dimensional anxiety scale was established by inter ratter reliability method. Hence the tool was reliable and it was used for the study, ( $r^1 = 0.93$ ).

## Major findings of the study

The major findings of the study were presented under the following headings,

- ✓ Findings related to distribution of demographic variables among School age children's with Anxiety in experimental group.
- ✓ Findings related to pretest and post test scores on School age children's with Anxiety in experimental group.
- ✓ Findings related to comparison of pre test and post test of School age children's with Anxiety in experimental group.
- ✓ Findings related to association between the post tests School age children's with Anxiety with their selected demographic variables.

Findings related to distribution of demographic variables among School age childrens with Anxiety in experimental group

- ✓ 53% of them have age group with 6 to 8 years.
- ✓ 73% of the respondents from the female group.
- ✓ 40% of the school grade of 7<sup>th</sup> standard.
- ✓ 40% of them type of family group are from joint family and Nuclear family each.
- ✓ 53% of them from average academic performance.
- ✓ 47% of them were Parental influenced.

Findings related to distribution of demographic variables among School age childrens with Anxiety in Control group

- ✓ 67% of them have age group with 10.1 to 12 years.
- ✓ 60% of the respondents from the female group.
- ✓ 40% of the school grade of 1<sup>st</sup> to 3<sup>rd</sup> standard.
- ✓ 53% of them type of family group are from joint family.
- ✓ 73% of them from average academic performance.
- ✓ 60% of them were Parental influenced.

Finding related to pretest and posttest scores on School age children's with Anxiety in experimental group

#### **Pre Test,**

- ✓ 33% of them often level of Children's with anxiety.
- ✓ 33% of them Occasional level of Children's with anxiety.
- ✓ 20% of them Usual level of Children's with anxiety.
- ✓ 13% of them don't have anxiety within Scholl age children's.

#### **Post Test,**

- ✓ None of them have anxiety Usually and often
- ✓ 33% of them have anxiety occasionally
- ✓ 67% of them don't have anxiety after the intervention.

Frequency and percentage distribution of pretest & posttest scores of children with Anxiety in control group

**Pre Test,**

- ✓ 53% of them often level of Children's with anxiety.
- ✓ 27% of them Occasional level of Children's with anxiety.
- ✓ 13% of them Usual level of Children's with anxiety.
- ✓ 7% of them don't have anxiety within Scholl age children's.

**Post Test,**

- ✓ 60% of them have anxiety occasionally
- ✓ 20% of them have anxiety often.
- ✓ 13% of them have anxiety usually.
- ✓ 7% of them have no anxiety.

**Finding relate to Frequency and percentage distribution of pretest & posttest scores of children with Anxiety in experimental group.**

- ✓ The Pretest mean children with Anxiety in experimental group was 5.24 with Standard Deviation 1.62.
- ✓ The Posttest mean children with Anxiety in experimental group was 9.36 with Standard Deviation 5.92.
- ✓ The paired 't' test value was 3.658.

**Findings related to Frequency and percentage distribution of pretest & posttest scores of children with Anxiety in control group.**

- ✓ The Pretest mean children with Anxiety in experimental group was 4.92 with Standard Deviation 1.131.
- ✓ The Posttest mean children with Anxiety in experimental group was 5.92 with Standard Deviation 1.26.
- ✓ The unpaired 't' test value was 4.2423.

**Findings related to find out the association between the post test level of anxiety among children with their selected demographic variable in experimental and control group.**

Chi square was calculated to find out the association between the post-test scores of Art therapy among school age children's with anxiety in experimental group.

- ✓ Chi square value for age was 0.3 ( $p > 0.05$ )
- ✓ Chi square value for gender was 4.23 ( $p > 0.05$ )
- ✓ Chi square value for grade in school was 3.09 ( $p > 0.05$ )

- ✓ Chi square value for type of family was 6.21 ( $p>0.05$ )
- ✓ Chi square value for academic performance was 2.08 ( $p>0.05$ )
- ✓ Chi square value for parental attention was 5.06 ( $p>0.05$ )

Chi square was calculated to find out the association between the post-test scores of Art therapy among school age children's with anxiety in control group.

- ✓ Chi square value for age was 2.52 ( $p>0.05$ )
- ✓ Chi square value for gender was 1.875 ( $p>0.05$ )
- ✓ Chi square value for grade in school was 1.1875( $p>0.05$ )
- ✓ Chi square value for type of family was 1.808 ( $p>0.05$ )
- ✓ Chi square value for academic performance was 2.52 ( $p>0.05$ )
- ✓ Chi square value for parental attention was 2.234 ( $p>0.05$ )

## CONCLUSION

- ✓ School age children's with Anxiety have only average and good level of socio activities.
- ✓ Art therapy was effective in improving level of activity like Education performance and social behavior activities.

## NURSING IMPLICATIONS

- ✓ Art therapy can be used by the nursing professionals who are working in the hospitals, clinical settings, schools and colleges for further reinforcing their practice.
- ✓ Art Therapy can be used for improving the Knowledge, coping level among mentally challenged children.

## NURSING EDUCATION

- ✓ Nurse educator should educate the children's regarding uses & techniques of activities of daily living.
- ✓ Nurse educator should educate the nursing personnel about the method of Art Therapy and its effectiveness on improving knowledge and coping activities of daily living among mentally challenged children.

## NURSING ADMINISTRATION

- ✓ Nurse administer can organize a Art Therapy activities of knowledge improving knowledge level in various health sectors and agencies.

- ✓ Nurse administer can support the nurses for conducting research on activities of improving knowledge.

## **NURSING RESEARCH**

- ✓ The study may be issued for further references.
- ✓ Evidenced based practice must take higher profile in order to increase the awareness among the nurses on uses of activities of improving daily knowledge.
- ✓ Various research projects regarding uses of Art therapy on activities of improving knowledge which can be improved effectively in future should by nursing institutions and hospital managements

## **RECOMMENDATION**

This study can be conducted with large samples.

- ✓ A similar study can be carried out with a longer duration.
- ✓ A Similar study can be conducted in different settings like schools, colleges.
- ✓ A different study can be done to assess the effectiveness of token economy activities of daily living among children living with chronic diseases etc.,

## **SUMMARY**

This chapter dealt with the summary of the study, major findings, conclusions, implication of the study in nursing field and recommendations for future.

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