

**EFFECTIVENESS OF PLAY MATERIAL ON THE LEVEL OF ANXIETY
AMONG HOSPITALIZED CHILDREN (9-12 YRS) IN PEDIATRIC MEDICAL
WARD AT INSTITUTE OF CHILD HEALTH AND RESEARCH CENTRE,
GOVERNMENT RAJAJI HOSPITAL, MADURAI**

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ABSTRACT

A study to assess the effectiveness of play material on the level of anxiety among hospitalized children (9-12 yrs) in pediatric medical ward at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai

Objectives-To evaluate the effectiveness of play material in terms of reducing anxiety among hospitalized children (9-12Yrs). **Design-**True experimental study was used to evaluate the effectiveness of playmaterial in terms of reducing anxiety among hospitalized children (9-12yrs) in pediatric medical ward at Government Rajaji Hospital, Madurai. The tool used for this study consists of demographic data and modified standardized pediatric anxiety rating scale. The populations of this study were 60 children (experimental-30, control-30) in the age group of 9-12 years admitted in pediatric medical ward who undergone treatment and other diagnostic procedure. Samples for the study were selected through simple random sampling technique .Conceptual frame work used for this study was King's open system (1981) model.**Results**The findings of the present study revealed that the computed post-test 't' value in over all area was highly significant ($t = 13.83, P < 0.05, df = 29$) . The mean and S.D value(mean=3.66, S.D=1.16) of post-test was lower than the pre-test value (mean=17.86, S.D=5.11).This shows that there was highly significant reduction of anxiety level after getting playintervention. In experimental group post-test anxiety level was not associated with the demographic variable.

Conclusion Play therapy was found to be very effective diversional technique to reduce the anxiety level as well as stressors of childhood hospitalization in hospitalized children, but it needs more practice and follow as a routine diversional technique in the ward for better hospitalization without any psychological responses of hospitalization (anxiety, depression).

CHAPTER-I

INTRODUCTION

**“A child is precious and beautiful,
A source of joy and happiness,
A focus of love and care,
A subject of dream for the future.”**

-Jawaharlal Nehru

Children are the precious gift of God. Children are like clay in the potter's hand. Handle them with love and care, they become something beautiful or else they break.

Dr. Abdul Kalam says, “Today's children are tomorrow's citizens and leaders. The resources spent on the care and health of the young are an investment for the future”.

Hospitalization is a common cause of separation in children. It provokes complete psychological process, often evoking an active fantasy in the young child of being abandoned by parents in the well-being of their child. The hospitalized school-age children's primary concerns are many fear loss of recently mastered skills. Many worried about separation from school and peers, they may fear and loss of former roles. Mutilation fantasies are common. Some may believe that they or their parents magically caused the illness merely by thinking that the event would occur. Typically, they have increased concerns related to modesty and privacy. The imposed passivity may be interpreted as punishment for being bad. Children may feel their body no longer is their own but rather is controlled by doctors and nurses.

Play has been recognized as important since the time of Plato (429-347 B.C.) who reportedly observed, “you can discover more about a person in an hour of play than in a year of conversation.” In the eighteenth century Rousseau (1762/1930), in his book ‘Emile’ wrote about the importance of observing play as a vehicle to learn about and understand children. Friedrich Frobel, in his book *The Education of Man* (1903),

emphasized the importance of symbolism in play. He observed, “play is the highest development in childhood, for it alone is the free expression of what is in the child’s soul.... children’s play is not mere sport. It is full of meaning and import.” (Frobel, 1903, p. 22) The first documented child, describing the therapeutic use of play, was in 1909 when Sigmund Freud published his work with “Little Hans.” Little Hans was a five-year-old child who was suffering from a simple phobia. Freud saw him once briefly and recommended that his father take note of Hans play to provide insights that might assist the child. The case of “Little Hans” was the first case in which a child’s difficulty was related to emotional factors.

Hermine Hug-Hellmuth (1921) formalized the play therapy process by providing children with play materials to express themselves and emphasize the use of the play to analyze the child. In 1919, Melanie Klein (1955) began to implement the technique of using play as a means of analyzing children under the age of six. She believed that child’s play was essentially the same as free association used with adults, and that as such, it was provide access to the child’s unconscious. Anna Freud (1946, 1965) utilized play as a means to facilitate positive attachment to the therapist and gain access to the child’s inner life.

In 1930s David Levy (1938) formulated a technique he called release therapy. His technique emphasized a structured approach. A child, who had experienced a specific stressful situation, would be allowed to engage in free play. Subsequently, the therapist would introduce play materials related to the stress-evoking situation allowing the child to react the traumatic event and release the associated emotions.

In 1955, Gove Hambidge expanded on Levy’s work emphasizing a “Structured Play Therapy” model, which was more direct in introducing situations. The format of the approach was to establish rapport, recreate the stress-evoking situation, play out the situation and then free play to recover.

Jesse Taft (1933) and Frederick Allen (1934) developed an approach they entitled relationship therapy. The primary emphasis is placed on the emotional relationship

between the therapist and the child. The focus is placed on the child's freedom and strength to choose.

Carl Rogers (1942) expanded the work of the relationship therapist and formulated non-directive therapy, later called client-centered therapy (Rogers, 1951). Virginia Axline (1950) expanded on her mentor's concepts. In her article entitled 'Entering the child's world via play experiences'. Axline summarized her concept of play therapy stating, "A play experience is therapeutic because it provides a secure relationship between the child and the adult, so that the child has the freedom and room to state himself in his own terms, exactly as he is at that moment in his own way and in his own time".

Play therapy is generally employed with children aged 3 to 11 and provides a way for them to express their experiences and feelings through a natural, self-guided, self-healing process. As children's experiences and knowledge are often communicated through play, it becomes an important vehicle for them to know and accept themselves and others.

Play therapy is used to help meet the emotional needs of children who have an illness or surgery that requires hospitalization. Being in the hospital is stressful for children and their families. Sometimes, children feel scared, confused, and out of control. Play therapy is used to help children understand and cope with illness, surgery, hospitalization, treatments, and procedures.

The goal of play therapy is to provide a family-centered approach to help the child adjust to hospital care. A child life specialist can help to meet the emotional needs of children in the hospital by getting to know the child, giving him/her a chance to express themselves, and allowing him/her to adjust to being in the hospital through play therapy. Parents of infants are offered a chance to learn new skills to comfort their baby and ways they can encourage their baby's continued development while their baby is recovering in the hospital.

Play Therapy is a specific counselling approach in which games, toys and medium such as clay, drawings and paints are used to help a child or adolescent to express their emotions, thoughts, wishes and needs. It helps them to understand muddled feelings and upsetting events that they have not had the chance or the skills to sort out properly. Rather than having to explain what is troubling them, as adult therapy usually expects, children use play to communicate at their own level and at their own pace, without feeling interrogated or threatened.

The initial focus of the therapy is on building a relationship between a child and the therapist. This relationship is a very important tool in the therapeutic process because a child or adolescent will more readily talk about their intimate feelings when they feel respected and accepted. In the sessions the therapist uses specific techniques to assess how a child or adolescent experience their world and how they communicate and react to the events and people in their world. Children are lead to become aware of what they are feeling and opportunities are given to express these feelings. Awareness is a very important process in play therapy, because without awareness change is not possible. Throughout the therapy the child or adolescent is empowered and supported to learn more about who they are, to talk about things that are frightening or painful, to be self supportive and to experiment with new behaviour.

Play Therapy can be useful for any child of four years and older. It can help to become aware of what feelings and how these feelings manifest in behaviour or one's body. They can learn how to become better at regulating emotions and expressing them in constructive ways. They can discover who they are and what their strong and weak points, needs, wishes, thoughts and dreams are. The combination of this self-knowledge and training in social skills may help a child to become more assertive, self-confident and to have self-respect and respect for others.

Child life specialists can help the child and family during preparation of child for medical procedures, surgery, relaxation, pain management skills, and express the feelings of the child. The child life specialist can help to answer questions about any brothers/sisters at home. Because of hospitalization, children at home may be worried

about their brother or sister who is in the hospital. They may be upset because mom and dad are away from them more than usual. Visiting the hospital can also be stressful for brothers and sisters. The child life specialist can help to prepare brothers and sisters before they visit. So, they can understand what they see and how they feel before and after their visit to their sibling in the hospital.

Play is an integral part of a child's life. From birth play helps children to learn, to relate to others and to have fun. Play can enhance a children's development physically, emotionally, intellectually and linguistically. When children or adolescents are admitted to hospital they are at their most vulnerable. They are not only unwell, but they are also separated from their friends, family and familiar surroundings which may lead to increased stress.

Play Therapy can really make a difference. It allows children to express their concerns while in hospital. Play Therapists facilitate an understanding of the hospital experience, and educate patients in adopting coping strategies to assist them with this.

Play Therapy in hospital can:

- help children regain confidence and self esteem;
- provide a safe outlet for feelings of frustration and anger;
- enhance the children's understanding of their treatment and illness;
- serve as a diversion to keep a child's mind off pain and medical procedures;
- assist healing and rehabilitation;
- allow children to participate in familiar activities that they would normally engage in at home, kindergarten or school;
- reassure the child that his/her body is still functioning

Any parent who struggles to understand or is concerned about his or her child's behaviour can have the child assessed. Examples of troubling behaviour are extreme or continuous separation anxiety or clinginess, aggression or anger outbursts, crying, withdrawal, anxiety and fears. The assessment is done in context of a therapeutic relationship and combined with play therapy techniques; therefore the atmosphere

therefore is relaxed, playful and supportive. The play therapist is usually able to determine some or all of the following aspects:

- The self-image of the child.
- The extent to which he shows self acceptance
- The child's ability to identify, accept and communicate her emotions.
- The nature of the relationships between the child and other family members.
- The child's perception of her own ability to cope with her present situation.
- The stressors in her life.
- Aggression (nature and function).
- Signs of anxiety and depression.

Play therapy is a technique whereby the child's natural means of expression, namely play, is used as a therapeutic method to assist him/her in coping with emotional stress or trauma. It has been used effectively with children who have an understanding level of a normal three to eight year old, who are; distraught due to family problems (e.g., parental divorce, sibling rivalry), nail biters, bed wetters, aggressive or cruel, social underdeveloped, or victims of child abuse. It has also been used with special education students whose disability is a source of anxiety or emotional turmoil.

Many psychologists, counselors and other professionals may view this technique as being within their jurisdiction only. They may be correct when referring to long term, in-depth counseling. However, although this technique is usually practiced by school counselors, social workers and psychologists, it can easily be modified for use by the teacher in the classroom for less intensive problems. If you plan to conduct pre-planned sessions, it is best to obtain the permission of administrators and parents.

This procedure is for a "non-directive" version of play therapy. There are many variations on the practice, but the materials typically remain the same. We identify a youngster who might benefit from play therapy. We sit near the student during class play period or recess. The recommended items include manipulatives (e.g., clay, crayons, painting supplies), water and sand play containers, toy kitchen appliances, utensils, and

pans, baby items (e.g., bottles, bibs, rattles, etc.), dolls and figures of various sizes and ages, toy guns, rubber knives, toy cars, boats, soldiers, and animals, blocks, erector sets, and stuffed animals.

Place the materials in specific places where they can be located for each session. Meet the student and introduce him/her to the play area. Inform the student of limitations and how long the session will last (usually 30-60 minutes). Allow the student to choose the materials with which to play. Do not suggest materials or activities. If the youngster wishes to leave before the session ends, that is allowed. However, in most cases the student is not allowed to return that day. He is informed of the time of the next scheduled session. Use the "reflection" technique to respond to the student's comments. If student is not speaking or is non-verbal, our role will change; we will be describing what the student is doing. Just make a report on the actions. Do not offer interpretations or judgements of the actions. ("He's a nice boy." "It's wrong for children to hit.") Some supervising adults ask probing questions to get the child to speak or investigate a situation further. ("I wonder why the grown up is doing that.", "What do you think that the girl is thinking right now?")

As the end of the session nears, inform the student of that fact, stating the number of minutes left. This procedure helps with transition back to other activities. Upon reaching the time limit, inform the student in a manner similar to the following: "Our time is up for today. We'll have to stop now and put the toys back where we found them." The student is not allowed to continue playing if you deem that s/he must return to other activities. Inform the student as to when the next session will be held.

Saraswathy, aged 4 years and confined to the hospital for fever, picked up her toy and said, "don't cry, Saraswathy". It is not your fault. Mummy is going to come every day to take care of you". She has continued to role play her fears, anxieties and painful procedures throughout her hospitalization. Her transition after discharge seemed smooth and uneventful to her parents. She used her toy seemed to be one effective coping strategy.

Life would be simple indeed if our needs were automatically gratified as we know, many obstacles, personal, social, emotional and environmental prevent this ideal situation such obstacles place adjustive demands on us and can lead to anxiety.

Hospitalization is stressful for children of all ages. During a serious illness, even older children have a great need for their parents and can tolerate their absence only for short periods. They need to know that their parents will be there when they need them most and that they are loved and missed. It is reassuring to note that most children are able to survive the event of hospitalization without long-term negative effects with the help of play material.

Nurses play a critical role in helping the child and family cope effectively with hospitalization. Play is an essential part of a child's life and is an important aspect in fostering growth and development. Toys are the "tools" of play and provide a more "natural" environment for a child. The proper selection and use of toys can reduce the traumatic effects of a hospitalization experiences and aid in the recovery phase of illness.

Play is an integral part of the hospitalized child's plan of care. Play offers the child an opportunity or creative expression, diversion and effective coping. In the hospital a supervised play program provides warm. Friendly atmosphere that will help the child continue to grow and develop. In larger hospitals a child life specialist may coordinate the play program. A place to play, suitable materials and other children to play with are essential.

Because play is a child's way of learning, toys, materials, and equipment are learning tools. Paints modeling clay dolls, blocks, games, books, video games, toys and interactive computer technology are some of the materials with which children rebuild the world to their size a world they bring with them of people, special belongings and feelings. Children play wherever they are. A child's play is his or her occupation or work. Designing a play program buffers the effects of separation from family, feelings of isolation and painful or frightening experiences such as intensive procedures. Play

promotes healing and helps the child to cope with stressful experiences. Children who fear treatments are helped to release their feelings in their use of dolls and other toys.

The attitudes and feelings that children reveal in their play are full of meaning. Every opportunity should be afforded the hospitalized children to use play and other expensive material to lessen stress, thus promoting healthy resolution of the negative aspects of the hospital experiences.

The child can find acceptable outlets for hostilities through play material. The proper selection of toys can provide constructive, educational stimulating relaxing, diversional, or therapeutic value.

Play is an essential element in the development of healthy individual, childhood play is an integral part of the developmental process in young children. It occurs spontaneously in children and gives them an important medium for informal learning play is not a purposeless activity serving only to pass the childhood hours, it is a vital factor in intellectual, social, and emotional development of a child.

1.1 NEED FOR THE STUDY

Department of Health (1991) all made clear recommendations that play should be provided in the hospital setting in order to maintain the emotional well-being of the child. The first hospital play schemes were established in 1957 at St Bartholomew's and St Thomas Hospital in London followed by the Brook Hospital in London in 1963, which was the first of many Save the Children Fund play schemes. Whilst a child's need for play has not changed since then, the way play is now used and delivered in hospital has changed. Play in hospital is no longer viewed as a useful way to relieve boredom and pass the time in a pleasurable way, although these are both still key elements in relieving fear and anxiety in a strange and unfamiliar setting.

The need for play is recognized as being particularly important in a hospital environment where the child is exposed to strange sights, sounds and smells.

A successful, well-run play programme needs to:

- increase the child's ability to cope with a hospital admission,
- facilitate appropriate channels of communication between the child, the family and relevant health care professionals
- create an environment where stress and anxiety are reduced
- provide the child with the means with which to cope with diagnosis, illness and treatment, and so ultimately regain control of the situation
- reduce developmental regression
- promote confidence, self-esteem and independence
- assist in the assessment and diagnosis of illness
- offer the child coping strategies for managing pain and invasive procedures
- prepare the child and family for medical and surgical procedures.

Play – when one thinks of play, one immediately thinks of fun and children. But what one does not realize is the scope of influence it has on the growth and development of a child stored within its realms.

Play happens to be the business for children. Its purposes are numerous intellectual and motor development, creativity and development of higher functions, play has been known to divert child's mind. E.g. A crying child will stop crying when a toy is given to play. The value of play to a sick child in the hospital has long been recognized and if the hospital is to meet the physical, mental and emotional need of the child. It must also provide suitable play activity to the child to reduce the fear and anxiety of a hospitalized children.

Children are referred for play therapy to resolve their problems (Carmichael; 2006; Schaefer, 1993). Often, children have used up their own problem solving tools, and they misbehave, may act out at home, with friends, and at school (Landreth, 2002). Play therapy allows trained mental health practitioners who specialize in play therapy, to assess and understand children's play. Further, play therapy is utilized to help children cope with difficult emotions and find solutions to problems (Moustakas, 1997; Reddy, Files-Hall & Schaefer, 2005). By confronting problems in the clinical Play Therapy setting, children find healthier solutions. Play therapy allows children to change the way

they think about, feel toward, and resolve their concerns (Kaugars& Russ, 2001). Even the most troubling problems can be confronted in play therapy and lasting resolutions can be discovered, rehearsed, mastered and adapted into lifelong strategies (Russ, 2004).

Although everyone benefits, play therapy is especially appropriate for children ages 3 through 12 years old (Carmichael, 2006; Gil, 1991; Landreth; 2002; Schaefer, 1993). Teenagers and adults have also benefited from play techniques and recreational processes. To that end, use of play therapy with adults within mental health, agency, and other healthcare contexts is increasing (Pedro-Carroll & Reddy, 2005; Schaefer, 2003). In recent years, play therapy interventions have also been applied to infants and toddlers (Schaefer, et. al., 2008).

Play therapy treatment plans have been utilized as the primary intervention or as an adjunctive therapy for multiple mental health conditions and concerns (Gil & Drewes, 2004; Landreth, Sweeney, Ray, Homeyer& Glover, 2005), e.g. anger management, grief and loss, divorce and family dissolution, and crisis and trauma, and for modification of behavioral disorders (Landreth, 2002), e.g. anxiety, depression, attention deficit hyperactivity (ADHD), autism or pervasive developmental, academic and social developmental, physical and learning disabilities, and conduct disorders (Bratton, Ray & Rhine, 2005).

Research supports the effectiveness of play therapy with children experiencing a wide variety of social, emotional, behavioral, and learning problems, including: children whose problems are related to life stressors, such as divorce, death, relocation, hospitalization, chronic illness, assimilate stressful experiences, physical and sexual abuse, domestic violence, and natural disasters (Reddy, Files-Hall & Schaefer, 2005). Play therapy helps children:

- Become more responsible for behaviors and develop more successful strategies.
- Develop new and creative solutions to problems.
- Develop respect and acceptance of self and others.
- Learn to experience and express emotion.

- Cultivate empathy and respect for thoughts and feelings of others.
- Learn new social skills and relational skills with family.
- Develop self-efficacy and thus a better assuredness about their abilities.

Meta-analytic reviews of over 100 play therapy outcome studies (Leblanc & Ritchie, 2001; Bratton, et. al., 2005) have found that the over-all treatment effect of play therapy ranges from moderate to high positive effects. Play therapy has proven equally effective across age, gender, and presenting problem. Additionally, positive treatment effects were found to be greatest when there was a parent actively involved in the child's treatment.

Catharine(2001) report that children in the hospital need play provision not only because they have natural needs for play but also for other reasons such as,

- To prevent developmental regression
- To reduce parental and child stress and anxiety
- To facilitate communication between staff and children
- To encourage the child co-operation in hospital procedures.

Saucier (1998) state that play material can be used in a multitude of setting and in a multidisciplinary fashion.

Ziegler (1999) state that one of every four children will be hospitalized atleast once before reaching school age. The physical and psychosocial stress of hospitalization may be influences by the child developmental level, causing behaviour changes, somatic complaints and a prolonged hospital stay. Through the use of careful developmental assessments, preoperative tours and therapeutic play techniques, fear can be allayed misconceptions correlated emotionally charged issues addressed and a positive self image created. Other purposes of therapeutic play are helps sick children gradually regain independence through enjoiment of group experiences. Creativity can be developed through playing with toys, games and group projects.

During the literature review, the investigator came across studies in relation to play activity and its effectiveness, in reducing the child anxiety, which are done in foreign settings. Studies done regarding the relationship between play material and

anxiety of hospitalized children are very few in India. Thus the investigator was motivated to carry out this study.

1.2 STATEMENT OF THE PROBLEM

“A study to assess the effectiveness of play material on the level of anxiety among hospitalized children(9-12 yrs) in pediatric medical ward at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai.”

1.3 OBJECTIVES OF THE STUDY

- To assess the level of anxiety among hospitalized children before administering play material in experimental group and control group.
- To determine the effectiveness of play material in the level of anxiety among hospitalized children in experimental group.
- To determine the associations between post-test scores of experimental group and the selected demographic variables.

1.4 HYPOTHESES

- **H₁** -There is a significant difference in the level of anxiety in children who are admitted in pediatric medical ward before and after providing play material in the experimental group.
- **H₂**.There is a significant association between post-test scores of experimental group and selected demographic variables such as age, sex, birth orders, place of residence, type of family, income, religion, standard of studying, parent's education, and previous exposure to the hospital.

1.5 VARIABLES

Independent variable	-	Play material.
Dependent variable	-	Anxiety
Attribute variables	-	Personal characteristics data which include age,sex, education, income of the family.

Settings of the study - Pediatric medical ward at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai.

1.6 OPERATIONAL DEFINITIONS

- 1. EFFECTIVENESS:** In this study, it refers to the outcome of anxiety level of children after providing play material assessed through modified standardized pediatric anxiety rating scale.
- 2. PLAY MATERIAL:** In this study, videogame will be the play material.
- 3. LEVEL OF ANXIETY:** In this study, it refers to anxiety assessment through modified standardized pediatric anxiety rating scale in areas of performance situations, separation, generalized, specific phobia, acute physical signs and symptoms and others.
- 4. HOSPITALIZED CHILDREN:** In this study, it refers to admission of children between the age of 9-12 years in pediatric medical ward, Institute of Child Health and Research Centre, Government Rajaji Hospital., Madurai.
- 5. PEDIATRIC MEDICAL WARD:** In this study, it refers to children those who are admitted for medical illnesses, diagnostic procedures.

1.7 ASSUMPTIONS:

1. Children who are hospitalized to undergo diagnostic procedures and treatment are susceptible to develop anxiety.
2. Children were explicit the reactions of hospitalizations are separation anxiety, depression, exposure to new environment such as doctors, injections etc.

1.8 DELIMITATION:

1. The sample size was limited to 60.
2. The Data collection period was limited to 6 weeks.
3. The study was limited to the hospitalized children, school age group (9-12 yrs) and the children to be stayed in the hospital seven days from the date of admission in pediatric medical ward at Institute of Child Health and Research Centre, GovernementRajaji Hospital, Madurai.

CHAPTER – II

REVIEW OF LITERATURE

The primary purpose of review of relevant literature is to give a broad background knowledge and understanding of the information that is available related to the research problem of interest.

Denise F Polit (2004) mentioned that a review of literature helps to lay the foundation for a study and also inspires new research ideas. It also plays a role at the end of the study, when the researchers are trying to make sense of their findings. An early literature review provides readers background for understanding of current knowledge on a topic and illuminates the significance of the new study.

The literature review is presented in five major headings viz.

- **Development of the child**
- **Psychological problems that face the hospitalized child**
- **Anxiety and fear**
- **Children responses and reactions to hospitalization**
- **Therapeutic play and hospitalized children**

➤ **DEVELOPMENT OF THE CHILD**

In order to gain insight into how a child could perceive the use of play to achieve mastery, it is necessary to take a closer look at the stage of development which they are in. This study focused on children in the middle childhood stage of development (9 – 12). So, I combine the theories of Erik Erikson, and Jean Piaget in more detail to fully grasp the most significant elements of this developmental period for children.

According to **Erik Erikson**, this age group 9 – 12 years falls under the psychosocial stage called middle childhood. During this time, children are learning the fundamental skills of their culture. They spend a great deal of time learning skills that are valued by their society, be it reading, writing, and arithmetic. As children gain confidence

in their abilities, they begin to have more realistic images of their potential contribution to the larger community.

Newman & Newman, (2003) the highlights of this stage include: developmental tasks of friendship formation, concrete operational reasoning, skill learning, self-evaluation, and team play. The psychosocial crisis involved in this developmental stage is industry vs. inferiority. The positive outcome of acquired skills during this time of life is the industry and inferiority is the feeling of worthlessness or inability to achieve milestones in this developmental stage.

The adaptive ego quality, competence and core pathology, inertia are involved in middle childhood. Competence: “a belief in one’s effectiveness,” which “provides the child with a deep confidence in his or her ability to engage new situations and do well”.

If a child does not achieve competence they may in turn suffer from inertia. “Children with a sense of inertia will not believe that they can master the challenges they face, and thus, they are likely to be swept along by the tide of events.”

Children who are hospitalized could potentially not be able to address their anxiety and fears due to the feeling of inertia. A hospitalized child may be unable to “address challenges or problems by formulating plans of action, evaluating them and then executing them.”

According to Piaget’s theory of cognitive development children of this age bracket would fall under the stage of Concrete Operation (7yrs – 11 yrs). However, it should be noted that Piaget’s Concrete Operational Stage technically begins at age 7yrs. It is here in this stage that a “child’s reasoning process becomes logical.”

Wadsworth, (1989) “During the concrete operational stage, the child evolves logical thought processes (operations) that can be applied to problems that exist (are concrete).”

This is something that the hospitalized child is dealing with throughout their hospital stay. Different from the “normal” developing child the hospitalized child requires an increase in support from those around them.

Gohsman (1981) He presents a strong argument to the needed understanding of where a child is in his or her development while in the hospital. “Basic to the art of childcare is the capacity to provide the child with the kind of relationship that facilitates growth through mastery of particular situations.”

While hospitalized children need to be presented with opportunities to achieve mastery indifferent realms. They are unable to be with their peers, however, they can be attaining goals similar to their healthy peers with necessary support. The hospital is the unknown as described in the psychological factors section but a child can overcome loss and surprise with the sense of mastery of situations.

He also describes the various levels of psychosocial development from Erikson as well as the elements of Piaget’s cognitive development. Each which provides milestones for children of all ages to attest to while growing up.

Robb, (1999) He addressed the stage just before middle childhood and concrete operations in her article. She made several reflections back on the previous stages in her research to support her reasoning for music therapy to be used with hospitalized children.

Gohsman(2001) describes specific areas with which a school aged child can be provided with situations for mastery while in the hospital which included; consistency of care, involvement in what is happening to their bodies, allow the child to keep hospital equipment nearby to learn how to use them in a form of “pretend” play, and finally allowing the child the ability to maintain some sense of control over what is happening and allowing for freedom to express themselves anytime. In closing it is stated the hospitalized child needs the care of concerned knowledgeable pediatric nursing to give them opportunities to master situations

Jessee, PhD (2002)Nurses, children and play.This article describes the importance of play to the well being of the hospitalized child. Nurses feel limited in this area as they have not been exposed to developmentally appropriate and culturally sensitive approaches in clinical and professional role models in the nursing curricula. Play facilitates a therapeutic interaction between nurse and child which serves as a bridge for the child into self-discovery, mastery, increased self-esteem and reassurance of fear and anxiety.

➤ **PSYCHOLOGICAL PROBLEMS THAT FACE THE HOSPITALIZED CHILD**

During hospitalizations children as well as their families go through a roller coaster of emotions. “The response to the illness are sometimes be more handicapping than the actual illness.”

Lask, Taylor, and Nunn,(2002) There is a trend in medical settings that is illustrated by the following statistics, “...Psychiatric disturbance occurs in between 20% and 30% of those with a medical illness....”

Depression due to a diagnosis seems to be highest with anxiety as a close second. When supporting children who are hospitalized the use of assessments will be necessary to fully guide them through difficult times. Assessment tools that are identified by Lask, Taylor, and Nunn are: screening for psychopathology, cognitive assessment, and assessment of social functioning and quality of life.

“Children may have fantasies and myths about the cause and prognosis of their disease, such as the illness being punishment for a misdemeanor. The fantasies need to be elicited and replaced by what is often the less frightening reality.”

The use of fairy tales can assist a child who is hospitalized to achieve a sense of mastery.

Mills and Crowley (2002) look more closely at the following elements of a classic fairy tale:

- Metaphorical conflict
- Unconscious processes
- Parallel learning situations
- Metaphorical crisis
- Identification
- Celebration.

Within each of these stages a child can find guidance through his or her own inner strength that can be identified when being counseled appropriately with psychological needs being met. When using metaphor can a child always expect positive responses or

reactions. Looking at metaphor from a psychological point of view identifies both positive and negative reactions from researchers.

Valerie Reyna (2003), He provides an interesting component to what this researcher is looking for regarding the use of metaphor. “Metaphorical functions also can be construed according to the specific contexts in which they occur.” Meaning with each use of metaphor it will depend on what is happening at that given moment as to the true purpose of the metaphor for the child involved. He does indicate the need for metaphor in her summary of the article. “The psychological impact of metaphors appears to shift dramatically from context to context, and these functional distinctions merit attention.” “While the quality of medical care may be excellent in many cases, too often little attention is paid to the psychological needs of the hospitalized child.”

Ack, (2004), He describes how an illness is psychological, social and organic, and to effectively treat any patient salient information in each area is necessary. He describes various reasons for why children experience hospital stays different than adults. In addition he explains mental health disorders that are more prevalent in age groups due to hospitalization at an early age. Disorders identified in this article are: conduct disorder, learning problems, and psychiatric symptomatology. Concerns in the article regard why a physician can't spend as much needed time with a patient and family to discuss psychological needs. He then goes on to describe common anxieties of each developmental stage along with steps that can help lessen potential problems.

Along with that fear of loss of control is the emotional stability of a child while in the hospital.

➤ **ANXIETY AND FEAR**

In looking at the development of children, anxiety is referred to by **Selma Fraiberg (2002)** in the book *The Magic Years* as, “Anxiety is necessary for the survival of the individual under certain circumstances. Failure to apprehend danger and to prepare for it may have disastrous results.”

Anxiety can also serve a social purpose. In other words it is the motives one has that exist in the consciousness. Keeping in mind that anxiety does not always serve as

useful, as the inability to cope with dangers may result in a sense of hopelessness and inadequacy from a mental health point of view.

Fraiberg (2000) also points out that in order to understand anxiety we must understand the nature of fears which appear in childhood and we need to examine the means by which children normally overcome dangers, real and imagined, which accompany each stage of development.

Hospital procedures can be frightening for children young and old alike. However understanding the cognitive development of a child is crucial for accepting their perception of pain experienced. Concrete operational children (7 yrs – 11yrs) “tend to provide more information about the experiences with pain and have some notion about cause and effect. Their rules for dealing with pain are also absolute.”

Hurley & Whelan, (2001) He stated that, Concrete operational children by nature in school are in a process of learning new concepts and behaviors. It is during this stage of development a nurse can optimize the teaching of positive health behaviors, including attention to the significance of pain as a warning that something is not quite right.

Children are all different, not one needing the same encouragement or support as the next one when it comes to hospital procedures. “In attending to their anxiety, some children need comfort and soothing; some need a release or a direction and permission to channel their experience of pain outward.”

Rasnake and Linscheid (2003). They present research which breaks 48 children ages 3 – 5 and 7- 10 into three random groups to measure their ability to understand upcoming procedures. In accordance with Piaget’s cognitive development, the researchers devised videos that presented information about an upcoming medical procedure. Videos were designed for a control group, for developmentally appropriate information and for developmentally advanced information. The children were randomly assigned to each group. Results suggested that information that was designed for the specific age group resulted in more cooperation and decreased anxieties for the medical procedure they were about to receive.

➤ **CHILDREN'S RESPONSES AND REACTIONS TO HOSPITALIZATION:**

William F (2000). He conducted study on “children's psychological responses to hospitalization”. Using a developmental science perspective, early research was reviewed and a model of variables that contribute to children's responses was constructed. This model consists of three major foci, including maturational and cognitive variables (developmental level, experience, coping style), ecological variables (family and hospital milieu), and biological variables (inborn factors and patho-physiology). Coping serves as the overarching framework for examining these variables and their contributions to children's responses to hospitalization. A variety of theoretical perspectives from the social sciences have been used, with psychoanalytic and stress and adaptation theories predominating.

Salmela.M.(2003) et al. He conducted the study on Coping with hospital-related fears: experiences of school-aged children.(6-12yrs) through A qualitative method was chosen with a purposive sample of 89 children. The data were gathered using semi-structured interviews from 1998 to 2000. The data were analysed using Colaizzi's method of phenomenological analysis. Through this study he was find thatthe children's experiences of coping with hospital fears consisted of ten main clusters: pleasure, positive images, security, confidence, care, understanding the meaning of the situation, participating, asking for help, readjustment and protecting oneself. The coping strategies during hospitalization described by the children were familiar to them and part of their everyday lives.

Finally he concluded that it is important to observe and support the child's individual coping strategies. Pre-school-aged children need information and guidance to orientate themselves in unknown situations and to participate in decisions concerning their everyday life. Most of all, they need opportunities to play and experience pleasure. Children can also be taught coping strategies that give them an active positive role.

Robert J Kirkby (2003) He stated that “Illness and hospitalization are stressful experiences for child patients and their families. Recent research has identified a range of variables that can influence the extent of negative reactions of children to hospitalization and medical interventions. These include the family's previous medical experience, the

child's developmental status, the parent-child interaction, the seriousness of the illness, the severity of the medical procedure, and the coping style adopted by a child.

Further investigation of such mediating variables is of benefit to children and families, as it can alert health practitioners to those children (and parents) who are most at risk and, as well, enhance the effectiveness of preparatory interventions. It is recommended that the adoption of a family systems perspective in future research will further the understanding of how child patients and their families cope with medical procedures.

Lanzi.G.Arrigo (2005) et al. the researcher conducted a study on “The effectiveness of hospitalization in the treatment of pediatric idiopathic headache patients. A pragmatic randomized open-label trial was conducted at the Child Neurology Clinic of the University of Pavia, Italy. Children and adolescents with a 2- to 6-month moderate-to-severe migraine or tension-type headache history were randomized to hospital admission or outpatient assessment and followed for 6 months. The efficacy of the two therapeutic strategies was measured by counting the number of responders in each arm.

He found that the study population included 27 girls and 23 boys aged 8 through 18 years with migraine (23 cases) or tension-type headache (27 cases). Compared to outpatient assessment, hospital admission was correlated to a significant increase in the number of responders: 0 vs. 44% (1 month), 0 vs. 68% (3 months), and 12 vs. 68% (6 months). The mean frequency and duration of attacks were significantly lower in hospitalized patients ($p < 0.0001$). Hospitalization was correlated with a significant reduction of patients with severe headache ($p < 0.005$), a reduction of drug use, and a higher number of satisfied patients and physicians ($p < 0.05$). Logistic regression analysis confirmed the higher responder rate among hospitalized patients after adjusting for age, sex, diagnosis, and headache characteristics or admission.

Finally the researcher concluded that hospitalization reduces the emotional mechanisms that provoke stress in children and often induce headache attacks. If these mechanisms can be interrupted, the management of disease may become easier and with enduring benefits.

Kims JS et al (2005) Researcher was selected convenience sample of 170 hospitalized Korean children. Each child was asked to describe how she or he felt during hospitalization, through the ERI-K (Emotional Reactions Instrument-Korean) and the Facial Affective Scale. Children reported lower levels of negative emotions and physical discomfort and a moderate level of positive emotion (Happy, Good). Internal consistency reliability of 0.88 for the 14-item scale provides strong support for reliability. Construct validity was supported by item-to-total correlations ranging between 0.42 and 0.65. Exploratory factor analysis identified two factors that explained 54% of the variance. Further testing of the ERI-K is recommended to provide additional evidence of psychometric adequacy across Korean populations.

➤ **THERAPEUTIC PLAY AND HOSPITALIZED CHILDREN**

Zimprich H. (1978) In order to eliminate negative psychological sequelae of hospitalisation of children, Animazione was performed on 2 children wards. On the internal children ward Animazione was seen to be a valuable help to reduce fear by self portrayal in play, into which also visiting parents could be introduced. On the psychosomatic ward Animazione could only be used in close cooperation with the psychotherapist of a particular child. Then it could be a fulfillment of therapeutic measures in contact with the therapeutic team of the ward. Animazione had to be used here in a modified way with aim in view: the therapeutic team on this ward after elimination of the hierarchic pyramid had taken over an increased initiative and self responsibility.

Chan JM. (1980) The child life therapist utilizes play techniques with hospitalized children for preparation and integration before and after medical procedures and surgery. Unstructured and structured play sessions enable children to anticipate threatening events and mobilize their coping behaviors. Through manipulating appropriate play materials including miniature-size medical equipment, children communicate if facts of preparation have been understood, misinterpreted or denied. Concrete play experiences (e.g., doctor puppet play), enable children to understand hospital routines and sequences of events. Sensory experiences (e.g., needle play), help

them dramatize situations and to adopt changes of role from passive to active ones. Opportunities for play after procedures (particularly intrusive ones) and surgery must be made available to clarify any misconceptions and to emphasize the nurturing and healing aspects of treatment. Psychological preparation for necessary procedures and surgery through play results in children enduring and cooperating more readily and have more trust in all medical personnel.

Clatworthy S. (1981) In an attempt to demonstrate therapeutic play as a potential treatment of hospital-induced anxiety in 5- to 11-year-old children, the following research study was conducted in two different hospital settings over a four-year period. A two-group experimental design was developed that included therapeutic play for the experimental children and pre and post measures of anxiety for all children. Results of this study demonstrate that therapeutic play is a valuable intervention with hospitalized children.

Letts M, Stevens L, Coleman J, Kettner R.(1983) The loss of a considerable segment of body tissue is often psychologically more traumatic than is the actual surgery to the unprepared child. In an attempt to improve the preparation of the child for ablative surgery, as well as to facilitate the pre- and postoperative management of the pediatric patient and family, we have developed a system of doll play and puppetry to educate and prepare children for this type of surgery. Guilt feelings are minimized, an outlet for hostility is provided, and the ever present fear of the unknown is confronted and dealt with in a manner acceptable to the child. The nonthreatening role of this technique also helps alleviate parental fears and concerns. Our experience with this technique has confirmed its usefulness in the preoperative psychological preparation of young children facing amputation or major musculoskeletal procedures.

Froehlich MA. (1984) Therapeutic play activities are designed to help children verbalize their hospital experiences so they can cope with the trauma of hospitalization. The purpose of the study was to determine whether a music therapy session was more effective than a medical play therapy session in facilitating this verbalization. Forty school-aged subjects were randomly selected to receive an individual music therapy or play therapy session. The two groups were equated on the following

variables: sex, age, socioeconomic status, length of present hospitalization, session interruptions, type of illness and related number of prior hospitalizations, and prior Child Life involvement. The last two variables were thought to influence verbalization. The dependent variable was comprised of each patient's response to four critical incidence questions about hospitalization. Content analysis was employed to code each response as a three-digit number with numbers increasing as the verbalization became more involved. The chi square statistic revealed that music therapy elicited significantly more involved verbalization about hospitalization than did the play therapy session for each of the seven variables. Verbalization was unrelated to the patient's diagnosis and prior hospitalizations. Patients without prior Child Life involvement had more involved verbalization than patients with prior involvement.

D'Antonio IJ. (1984) Play for most hospitalized children centers around self and stressful situations as perceived by the child and is restricted in terms of what the environment and physical limitations of the child present. Play can be a tool to understand and intervene with pediatric patients. Collaboration with nurses who are clinical specialists, early childhood educators, and others who have expert knowledge of children and play equipment is useful to plan purposeful play programs or play sessions for the special needs of hospitalized children. Such collaboration will insure that play will be carried out in a consistent growth-promoting manner. For some children, hospitalization is a challenging experience that promotes a sense of competence. For other children, hospitalization is an experience that results in a negative outcome. Nurses can use play to provide pediatric patients with emotional and cognitive growth-promoting activities which facilitate a more positive hospital experience and long-term outcome.

Rae WA, Worchel FF, Upchurch J, Sanner JH, Daniel CA. (1989) Compared the effects of play on the psychosocial adjustment of 46 children hospitalized for acute illness, who were placed in one of four groups: therapeutic play, diversionary play, verbal support, and no treatment. Ratings of psychological adjustment included self-report, as well as nurse and parent ratings. Children in the therapeutic play condition evidenced a significant reduction in self-reported hospital fears. Parent ratings were not affected by

therapeutic treatments; rather, parents in all four groups rated their children less anxious from pre- to posttesting. Results are discussed in terms of methodological considerations that have affected outcomes in this type of research.

Walker C. (1989) Play enhances a child's physical growth and development and contributes to the mastery of language and social skills. It is essential for the child's psychological development and maturation. An overview of the field of play and art psychotherapy is presented with an outline of the function of play for the physically ill child. Techniques of play and art therapy that nurses can use for children with cancer, including therapeutic play.

Abbott K.(1990) Hospitalization and surgery are generally accepted as stressful situations for children. A review of the literature indicates therapeutic play is effective in helping children cope with stressful situations. This article illustrates the benefits of using therapeutic play in the psychological preparation of preschool children undergoing cardiac surgery. Play as a useful assessment and intervention tool for the nurse is examined.

Fosson A, Martin J, Haley J. (1990) We investigated the following three assumptions regarding anxiety in hospitalized children: (1) anxiety decreases during hospitalization, (2) anxiety correlates with symptoms, procedures, and parental anxiety, and (3) anxiety is reduced following guided play with real and simulated medical equipment. Fifty latency-age children and their parents were studied. Anxiety was measured by self-report, parental report, nurse's report, and direct observation. Potential correlates were monitored daily by review of patient care records, and interviews of primary nurses and parents. Hypothesis one was confirmed; anxiety decreased significantly (p less than 0.001) across the four assessments. Hypothesis two was confirmed; symptoms, procedures, and parental anxiety accounted for 27-30% of the variance in children's anxiety. Hypothesis three was not confirmed; anxiety decreased following guided play, but not enough to reach statistical significance.

Ribeiro CA. (1991) - conducted a study on the effect of the use of therapeutic play by the pediatric nurse on the behavior of recently hospitalized children. It describes

the realization and one experimental research accomplished with children from 3 to 5 years age, recently –hospitalized using the therapeutic play. The results showed that it helped children behave more according to what is expected of this 3-5 age group, as well as show signs that they had adapted or presented ego strength.

Belig R. Yolton KA Nissen HL, (1991) – conducted a study on medical play and preparation have become increasingly visible components of psychological programming for children in health care settings. Each strategy varies to the extent to which adults structure and direct, which may influence children's responses and post-hospital adjustment. Medical play and preparation represent different philosophies and theories on children's learning. Adaptation and development of the ever-changing medical environment may currently favour adult directed experiences over those that are spontaneous or child initiated with potentially differing impacts on children. Issues are raised regarding the potential impact as well as that of programs with various combinations of adult versus child structured experiences.

Furtade MC, Lima RA, (1991) – conducted a study on playing in hospital addition to nursing care. Playing is one of the essential activity for the physical emotional and social development to the child. Although the importance of this activity during the hospitalization process is little value, so it is not find out between the foreseen therapeutic actions that are preview. The empiric data collection was realized through the participant observation of 11 children who were intern in a pediatric unit of a teaching hospital of state of Sao Paulo up country. We identify that the act to play has repercussions in the child, Nurse and hospital. To the child it is not obstruct the development: help to understand about what is occurring with itself and discharge fear, tension, anxiety, and frustration: promote satisfaction, funny and spontaneity and allows it transforms experiences that should support inactive discharge. In the nurse it is a tool of intervention end a way of communication, that allows detect. The uniqueness of each child related to the hospital, change the current view that is only a pain and suffering place.

Jessee PO.(1992) A child's play is recognized as a useful tool for nurses in the diagnostic process of making judgments about a hospitalized child's compliance with

medical procedures, adjustment to the hospital environment, degree of pain, and level of psychosocial functioning. However, the knowledge base that is required to effectively help a pediatric patient "play" in a therapeutic mode appears to be extremely limited for most nurses and is rarely addressed in a substantive manner in nursing education. Educational programs must be willing to incorporate a "developmentally appropriate, culturally sensitive, and family-centered approach" using clinical experiences and professional role models in their nursing curricula. The end product should be nurses who are competent in a much wider range of medical technological and psychosocial issues than has been necessary in the past. In short, nurses must learn to play.

Doverly N. (1992) – conducted a study on therapeutic use of play in hospital children can suffer much anxiety and stress on entering the hospital environment. Play material in all its forms, can help to alleviate such stress and facilitate a smoother adjustment to the new and potentially frightening surroundings.

May L. (1992) Children faced with clinical procedures may become distressed in anticipation of the experience of pain. This article describes psychological interventions designed to minimise the trauma children associate with potentially distressing situations. Although time-consuming, the author suggests they are valid tools in the control of pain.

Loranger N.(1992) Constructive, therapeutic play is an effective nursing intervention for helping the toddler deal with separation anxiety, but, the play must transcend cultural barriers. Using Bowlby's theoretical framework to understand the response of separation anxiety in the toddler, culturally sensitive interventions of play that allow the Hispanic toddler to work through fears and express issues of separation are examined.

Thompson ML.(1994) This study conducted to find out the relation between coping behavior and anxiety among school-age children anticipating an elective tonsillectomy and/or adenoidectomy. The demographic variables of age, gender, previous hospitalization, and birth order were also studied in relation to both coping and anxiety. Interview methods were utilized to measure information-seeking and information-limiting coping behaviors and feelings of anxiety. The results of this study indicate that children who used primarily information-seeking or information-limiting strategies

were successful (as measured by low anxiety levels) in managing the stress of anticipated hospitalization. Children using information-seeking strategies for some, but not all, aspects of the hospitalization experience reported the greatest anxiety. The demographic variables were not related to either anxiety or coping.

Lizasoain O, Polaino A. 1995 – conducted a study on reduction anxiety in pediatric patients; effects of psycho pedagogical intervention programme. A psycho pedagogical intervention programme is used as a resource to improve children's life in hospital and to prevent the negative effects of hospitalization. One of these negative effects are the children's anxiety. The statistical analysis showed the effectiveness of this programme in order to reduce and prevent the emergence of anxiety symptoms. Therefore its generalization and use are recommended.

Needle JS, O'Riordan M, Smith PG.(1996) - The authors examined the factors that contribute to parental anxiety and the effect of parental anxiety on comprehension of medical information within 24 hrs of a child's admission to the PICU. The physician's recognition of parental anxiety related to their child's hospitalization was also evaluated. Prospective cohort study was conducted with a convenience sample of primary caregivers of critically ill children. Of the 34 parents completing the State-Trait Anxiety Inventory, 21 (62%) had State Anxiety that was significantly higher than a validated sample of patients with generalized anxiety disorder. The child's need for mechanical ventilation was the only significant predictor of high-parental State Anxiety ($p = .03$). Among the 28 parents completing the questionnaire of comprehension of medical information, 26 (93%) demonstrated excellent or fair comprehension. Physicians had generally low recognition of parental anxiety but were significantly more likely to rate a parent's anxiety as high if the child was on mechanical ventilation.

Wray J, Lee K, Dearmun N, Franck L.(1996)- The aims of this pilot study were to assess anxiety and stress in parents of children admitted to hospital and identify influencing factors. Parents of 28 children hospitalized for at least 3 days completed questionnaires assessing psychological functioning after admission. Higher anxiety scores were associated with the use of self-blame, lower optimism scores, higher levels of illness-related uncertainty and a greater number of previous hospital stays. Parents

experience substantial stress and anxiety when their child is hospitalized. Screening for those at high risk for anxiety and implementing interventions to reduce uncertainty and maladaptive coping strategies may be beneficial.

Kuntz N, Adams JA, Zahr L, Killen R, Cameron K, Wasson H. (1996) Constructive, therapeutic play is an essential part of the care of children with long-term hospitalizations. The O'Connor theoretical framework supports the importance of play in ensuring the emotional, developmental, and physical health of children. The negative effects of long-term hospitalization are particularly evident for children who have undergone bone marrow transplants and must be kept in germ-free environment and isolation for extended periods of time. This article describes a successful play therapy program in a Bone Marrow Transplant Unit, using a play cabinet designed to provide readily available, sterilized toys that are appropriate for each of four age groups. Two cases are presented that show the efficacy of the use of the play cabinet in play therapy programs.

Billig T, Weaver K. (1996) Caring for the child and family experiencing a limb loss can be one of the most challenging opportunities for the health care worker. A family-centered approach provides a caring and compassionate way for the child and family to view the complicated medical world. One method that bridges communication between the health care team, patient, family, and community is doll therapy. Individualized doll therapy can help the child understand the amputation, physical limits, prosthetic care, and body image.

Scrimin S, Haynes M, Altoè G, Bornstein MH, Axia G.(1997)- Surgery in a pediatric setting stresses children and their parents. Previous studies have focused on children and the preoperative period; however, the 24 h after child surgery are highly stressful for parents as their child is still physically recovering and physician-parent communication is vital. The aims of this study are to investigate the impact of three levels of severity of pediatric surgery on parental anxiety and stress and to identify contributing factors of parental anxiety and acute stress symptoms in the first 24 h after child surgery. Parental anxiety was predicted by parent's gender, trait anxiety. Number of acute stress

symptoms was predicted by parental trait anxiety, health external locus of control, parent's level of education and the number of social contacts.

Commodari E.(1998) - The aim of this study was to investigate perception of acute stress in caregivers taking care of children without serious physical damage that were hospitalized for short periods. Moreover, some variables, such as recreational and school services offered to children, This study was realized with a sample of caregivers of children hospitalized for mild acute diseases. Research was conducted using two standardized tests, Present data showed that caregivers of hospitalized children perceived high levels of stress and anxiety. Perception of stress was influenced by the degree of kindred with patients, length of hospitalization, and, notably, participation in some of the material offered to children, mainly school services.

Scout ME. (1998)- conducted a study on play and therapeutic action. Multiple perspectives children's play that goes unanalyzed within a psychoanalysis yet leads to conscious insight. The therapeutic and development facilitating effects of unanalyzed play suggest that substantial analytic work goes on unconsciously. Technical issues arise, therefore, if play is conceptualized as a therapeutic force in its own right. Developmental considerations and inhibitions in play become greater considerations in analytic technique. Two clinical vignettes from the analyses of latency- age girl and boy are presented to illustrate unanalyzed play as an agent in development and mastery of anxieties.

Zahr LK. (1998) Therapeutic play in the form of an interactive puppet show was administered to 50 preschool children one day before surgery in a hospital in Lebanon. A control group of 50 preschool children received routine care but no therapeutic play. Physiological and behavioral measures were assessed on admission, at the time of a stressful procedure (preoperative injection), after surgery, and after discharge. Although on admission there had been on significant differences between the means on physiological measures for the two groups, the children who received the therapeutic play intervention manifested markedly less anxiety and more cooperation and had significantly lower mean blood pressures and pulse rates during the injection than the control group. Following surgery, the experimental group took less time to void their

bladders, another physiological indication of lower stress level. After hospital discharge, the children who had received therapeutic play had significantly lower scores on all six factors of the Post Hospital Behavior Questionnaire. This study demonstrates that therapeutic play is a valid means of reducing stressful responses to hospitalization and surgery among children in Lebanon.

Bowmer N. Zahr's (2002) study supported the use of puppet shows, as therapeutic play, to decrease anxiety in hospitalized preschoolers. The results of this study support our group's research utilization project to educate nurses on the effects of therapeutic play on anxiety levels in hospitalized children. Nurses could use this information to implement therapeutic play in hospitals throughout the world. Feasibility issues would include the cost of materials needed and the time involved to educate nurses. More research should be done on therapeutic play as a method to decrease anxiety in children. Future research could be conducted using other cultures or age groups.

William Li HC, Lopez V, Lee TL. (2007)The purpose of this study was to examine the effects of therapeutic play on outcomes of children undergoing day surgery. Two hundred and three children admitted for day surgery were invited to participate in a randomized controlled trial. The experimental group received therapeutic play; the control group received routine information preparation. Children in the experimental group reported significantly lower state anxiety scores in pre- and postoperative periods and exhibited fewer negative emotions at induction of anesthesia than children in the control group. No significant differences were found between the two groups in postoperative pain. The study provides some evidence that therapeutic play is effective in pre- as opposed to postsurgical management of children.

Li HC, Lopez V. (2008)A study was conducted on the effectiveness and appropriateness of therapeutic play intervention in preparing children for surgery by a randomized clinical trial. Children (7-12 years of age; n = 203) admitted for surgery during a 13-month period were recruited. The results support the effectiveness and appropriateness of using therapeutic play in preparing children for surgery. The study results promote awareness in nurses and parents that play is a very important part

of children's lives, and heighten the importance of integrating therapeutic play as an essential component of holistic and quality nursing care to prepare children for surgery.

Hendon C, Bohon LM. (2008) A study was conducted on hospitalized children's mood differences during play and music therapy. The purpose of this study was to test whether children in a hospital were happier during music rather than play therapy. Sixty children were observed either during play or music therapy. Happiness was operationally defined as the frequency of smiles during a 3 minute period. The results showed that music therapy (M = 12.43, SD = 4.83) led to significantly more smiles than did play therapy (M = 5.83, SD = 3.10). Increasing the amount of time hospitals provide music therapy for child patients may be a way to increase positive effect and ultimately to increase mental and physical well-being in hospitalized children.

Tanaka K, Yoshikawa N, Kudo N, Negishi Y, Shimizu T, Hayata N.(2010) The importance of distraction techniques and play therapy for sick children has long been recognized by nurses in the UK and other western countries. Although these techniques are not so well established in Japan there is growing interest in them. The authors conducted a survey and found that children's nurses in Japan appreciated the value of distraction techniques and play therapy. They argue that attitudes to using them on children's wards in Japan are changing, but there is still a lack of training and few play specialists.

Gold K, Grothues D, Leitzmann M, Gruber H, Melter M. (2012) The following article presents an overview of current research studies on play therapy in the hospital. It highlights individual diagnoses for which play therapy has shown reasonable success. The aim of this review is to describe the current status of the scientific debate on play therapy for sick children in order to allow conclusions regarding the indications for which play therapy is or might be useful.

Stone S, Stark M.(2013) Over the years, we have developed a working model of Structured Play Therapy Groups for Preschoolers, an innovative treatment approach designed to address the needs of young children ages 3 to 5 struggling to adjust to the social demands of their preschool classrooms. These short-term therapy groups facilitate development of the young child's social competence and capacity to participate effectively in a classroom environment. Although the literature on therapy groups for children suggests that preschoolers are not yet evolved enough developmentally to

engage actively in a group process, our experience indicates otherwise. The model of treatment presented here will therefore challenge that contention with the claim that not only can preschoolers participate in a structured therapy group of peers but they can, by virtue of that very participation, benefit in ways that will prepare them (as they transition from preschool to kindergarten) for the ever-increasing demands of their ever-expanding social milieus.

Potasz C, De Varela MJ, De Carvalho LC, Do Prado LF, Do Prado GF. (2013)A study was conducted on the effect of play activities on hospitalized children's stress by a randomized clinical trial. Urinary cortisol (a stress marker) was examined in 53 pediatric patients hospitalized for respiratory diseases in a public hospital, divided into two groups that did or did not play. Boys and girls from the play group, 7-11 years old, showed a decrease in cortisol levels after participating in play activities. In younger participants (4-7 years old) the intervention did not seem as efficient, probably because in this group maturity levels may have influenced how children cognitively engaged in play as a coping strategy.

CONCEPTUAL FRAME WORK

Conceptual frame work based on Imogene King's open system model (1981)

In 1981 King proposed an open system model as a basis for her **Goal attainment theory**. According to King all system are open, in that there is a continual exchange of matter energy and information. Open system has verifying degree of interaction with the environment from which the system receives inputs and gives feed backs.

Person

Person is a social, rational, purposeful action and time oriented being, who requires fundamental health needs such as timely and useful health information, care that prevent illness and help when the self care demands cannot be met.

Environment

Environment is the open system allows the exchange of matter, energy and the information.

Health

Health is described as the dynamic state in the life, using personal resources to achieve optimal daily living.

Nursing

Nursing promotes, maintains and restores health and cares sick, uses a goal oriented approach in which the client and nurse interact to attain goal, so that they can function their own role independently.

The main concepts of open system model are input, throughput, output and feedback.

In the open system **input** refers to the matter, energy and information that enter into the system through its boundary.

In this study **input** is play therapy intervention by videogame for 30minutes.

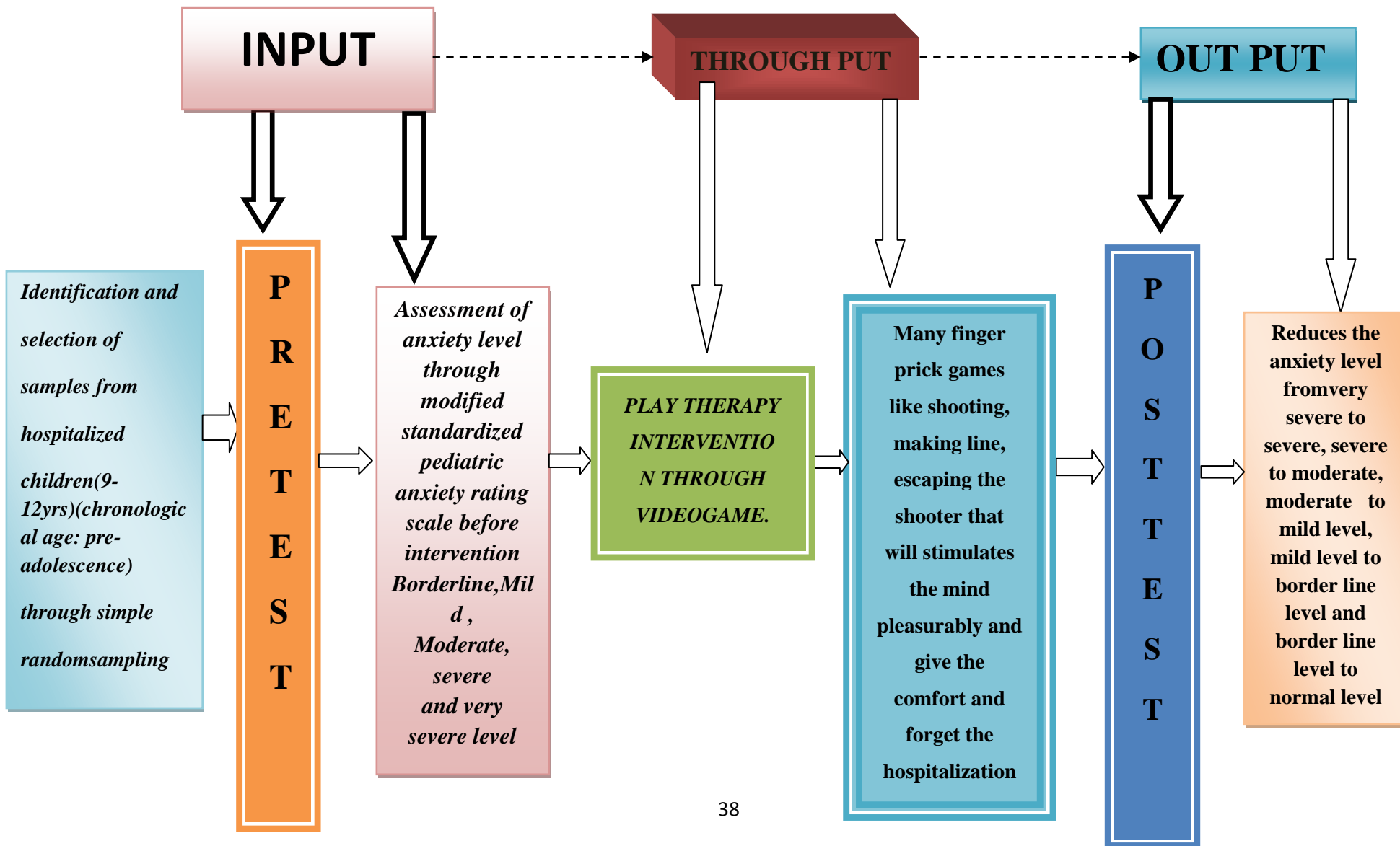
Throughput refers to the processing where the system transforms the energy matter.

In this study **throughput** is the process taking place within the subjects during playing game.

Output refers to the matter, energy and information in the environment that are in an altered state.

In this study **output** is the minimizes and the reduction of anxiety level of hospitalized children (9-12yrs), from very severe to severe, severe to moderate, moderate to mild, mild to borderline, borderline to normal status.

Fig.1. CONCEPTUAL FRAME WORK BASED ON MODIFIED KING’S OPEN SYSTEM MODEL (1981)



CHAPTER III

METHODOLOGY

Research methodology is a pathway by which the researcher intended to solve the research problems systematically. It involves the series of procedures in which the investigator starts from initial identification of the problem to its final conclusion. This chapter deals with research approach, research design, setting of the study, study population, sample size, sampling technique and criteria for sample selection. It also deals with development of tool, procedure for data collection and plan for data analysis.

RESEARCH APPROACH

It is a quantitative study in which pre-test post-test only design was used. True experimental design involves the randomization, control and manipulation of an independent variable. (Polit and Beck 2004). The study aimed to evaluate the effectiveness of play material in terms of reducing anxiety among hospitalized children (9-12yrs).

3.1 RESEARCH DESIGN

True experimental design was selected to assess the level of anxiety of the hospitalized school going children. **Pre-test post-test only design** was used.

GROUP	SAMPLING BY	PRETEST	INTERVENTION	POST-TEST
Experimental Group	Random sampling	O ₁	X	O ₂
Control group	Random sampling	O ₁	—	O ₂

O₁ - pretest anxiety score

O₂ -Post test anxiety score

X - Play material

3.2 SETTINGS OF THE STUDY

The study was conducted in the pediatric medical ward at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai. The hospital was started in the year 1940. It is approximately 3000 bedded multi-speciality hospital. It is the biggest hospital in south Tamilnadu with adequate transport facilities. The pediatric wing is named as Institute of Child Health and Research Centre which has six medical units and two surgical units. The bed strength of Institute of Child Health and Research Centre is 200 in which pediatric medical wing is 120 bedded. This institute has providing meritorious service to the people of south districts of Tamilnadu.

3.3 TARGET POPULATION

The population comprises of hospitalized children between the age group of 9-12 years.

3.4 ACCESSIBLE POPULATION

The children those who are admitted in pediatric medical ward between the age group of 9-12 yrs at Institute of Child Health and Research Centre, Government Rajaji hospital, Madurai.

3.5 SAMPLE

The children those who are admitted in pediatric medical ward between the age group of 9-12 yrs at Institute of Child Health and Research Centre, Government Rajaji hospital, Madurai and fulfilling the inclusion criteria.

3.6 SAMPLE SIZE

In the main study sample size was 60 school going children (30 experimental group and 30 control group) who are admitted in pediatric medical ward, Government Rajaji Hospital, Madurai.

3.7 SAMPLING TECHNIQUE

Samples were selected by Simple random sampling technique through Lottery method.

3.8 CRITERIA FOR SAMPLE SELECTION

INCLUSION CRITERIA

- Children those who are admitted in pediatric medical ward between the age group of 9-12 years at Government Rajaji Hospital, Madurai.
- Children those who are willing to participate.
- Children who could understand Tamil.

EXCLUSION CRITERIA

- Children those who are critically ill.
- Children who are treated as outpatients.
- Children with physically and mentally challenged.

3.9 SELECTION AND DEVELOPMENT OF TOOL

Tools were prepared on the basis of objectives of the study. A **modified Pediatric Standardized Anxiety Rating Scale** was used to assess anxiety level of the hospitalized school going children (9-12 yrs) those who are admitted in pediatric medical ward. It was considered to be the most standardized instrument to elicit the response from subjects who are able to speak Tamil.

3.10 DESCRIPTION OF TOOL

Section A: A personal data consists of 10 items age, sex, birth orders, place of residence, type of family, income, religion, standard of studying, parent's education, and previous exposure to the hospital.

Section B : A modified standardized pediatric anxiety rating scale was used. It consists of 50 items on different areas about anxiety. The items were given score of one is "Yes" and score of zero is "No".

The items were comprised to cover different area such as,

- a. Social Interactions Or Performance Situations
- b. Separation
- c. Generalized

- d. Specific phobia
- e. Acute physical signs and symptoms and
- f. Others.

3.11 SCORING PROCEDURE

Section A : No score was allotted for the demographic variables

Section B : A modified standardized pediatric anxiety rating scale was used. It consists of 50 items on different areas about anxiety. The items were given score of one is “Yes” and score of zero is “No”.

LEVEL OF ANXIETY	SCORES
Normal	0
Borderline	1 –10
Mild	11-20
Moderate	21-30
Severe	31-40
Very Severe	41-50

3.12 TESTING OF TOOL

Testing of quantitative tool is a major criterion for assessing its quality and adequacy. After developing the tool/instrument, it is must that investigator should establish the validity and reliability of that tool.

Validity

Validity is the degree to which an instrument measures what it is supposed to measure. The tool was given to five experts in the field of pediatrician and Child Health nursing. Based on their suggestions the validity of the tool was confirmed.

Reliability

The reliability of a measuring instrument is a major criterion for assessing its quality and adequacy. Reliability is the consistency with which it measures the target attribute. The reliability was established by Test-Retest method which was 0.7273 (p=0.0001).

3.13 PILOT STUDY

Pilot study was conducted in the pediatric medical ward, Government Rajaji Hospital, Madurai to test the feasibility, relevance and practicability of the intervention .It was carried over on between 16-09-2013 to 21-09-2013 with 10 samples. Pilot study revealed that calculated' value (4.11) was significant at $p = 0.05$ level. Analysis revealed that play intervention had a significant effect in reducing the level of anxiety among hospitalized children between the age of 9-12 yrs. It revealed that the study was feasible.

3.14 INTERVENTION

Intervention : Providing Video game to play

Frequency : One session at morning

Duration of session : 30 minutes

Duration of therapy : Five consecutive days.

During the intervention the researcher observed and supported the children.

3.15 ETHICAL CONSIDERATION

All respondents were carefully informed about the purpose of the study and their part during the study and how the privacy was guarded. The confidentiality of the study result was ensured. Thus the investigator followed the ethical guidelines which were issued by the research committee.

3.16 DATA COLLECTION PROCEDURE

Formal permission was obtained from the Principal, College of Nursing, Madurai Medical College, The Director, Department of Pediatrics, Institute of Child Health and Research Centre and Independent Ethical Committee at Govt., Rajaji Hospital, Madurai-20 to conduct the study.

On the first day of admission in pediatric medical ward, the mothers / caregivers of children were approached and the consent was obtained after fully explaining the procedure of the study and the rights of the clients. Based on the criteria for sample selection the subjects were selected using lottery method (Subjects who have taken odd

numbers are assigned to experimental group and who have taken even numbers were assigned to Control group).

10 samples were selected for first week of study. Pre test was done to evaluate the level of anxiety using modified standardized Pediatric Anxiety Rating Scale. The next day, after the ward rounds the video game was provided to experimental group for 30 minutes once in a day. The same intervention was given for a period of 5 consecutive days. The post-test assessment was conducted for both groups using the same assessment scale on the seventh day of the study. The same sample selection procedure and intervention was adapted to the further five groups. The data collection period was 6 weeks and data was collected on all 7 days of a week.

PROPOSED PLAY MATERIAL

Play material refers to the structural material designed according to age and cognitive development where the concept of play is used as a deviation to improve the coping ability of child during hospitalization.

Play material are the process for treatment where the concept of play is a used as diversion. It includes the opportunity provided of children to manipulate, create, draw, interact and involve themselves with selected material or object. Researcher provided play material as video game.

3.17 PLAN FOR DATA ANALYSIS

The data obtained were analyzed in term of the study using descriptive and intervention statistics. The plan for data analysis as follows.

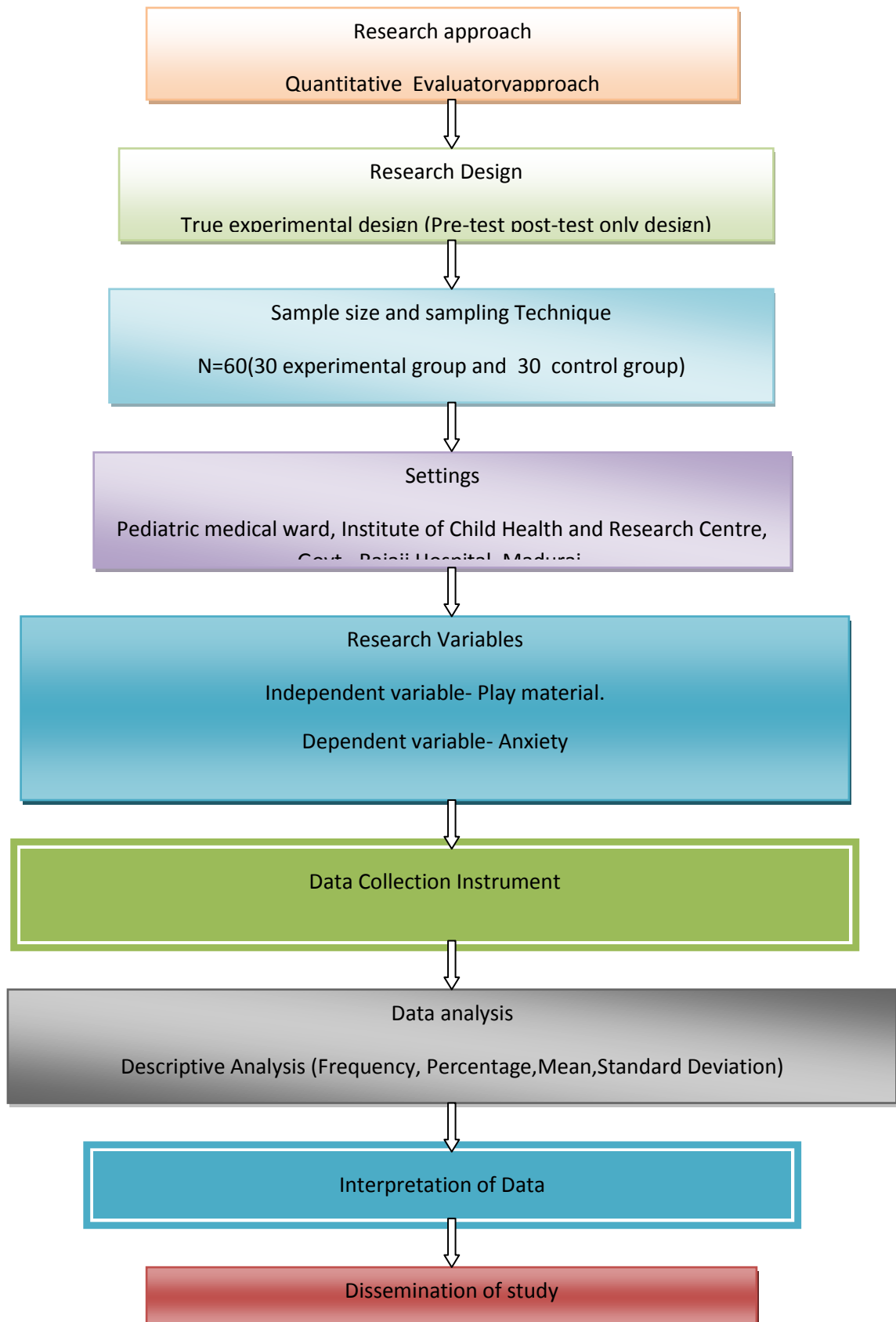
- Organize data in a master sheet or computer
- Personal data would analyzed in term of frequencies and percentages
- The level of anxiety before and after administering play material would be analyzed by using descriptive statistics in terms of frequencies, percentage, mean, median, standard deviation and would be presented in the form of bar, column, pie, cone, pyramid, cylinder diagrams.

- The significance of the difference between pretest and post test score would be determined by inferential statistics like paired ‘t’ test.
- The association between level of anxiety and demographic variable would be determined by using chi square test.

3.18 PROTECTION OF HUMAN SUBJECTS

Prior to pilot study and main study approval was obtained from the dissertation committee for research proposal. Permission was obtained from the Principal, College of Nursing, Madurai Medical College, Dean, Govt., Rajaji Hospital, Madurai-20 and Director, Institute of Child Health and Research Centre, Govt., Rajaji Hospital, Madurai-20 to conduct the study. The purpose and other details were explained to the mothers/care givers of the study participants and informed consent was obtained from them.

Fig. 2 Schematic Representation of the Methodology



CHAPTER-IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of the data collected. Analysis is a method for rendering quantitative, reliable, meaningful and providing intelligible information. So that the research problem can be studied and tested which including the relationship between the variables.

The data collected was analyzed using appropriate statistical methods, tabulated and the results are described as follows.

Section I: Demographic profiles of the samples.

Section II: Assessment of pre and post-test anxiety level among hospitalized children. .

Section III: Assessment of area wise (item analysis) anxiety level in pre and post test among hospitalized children.

Section IV: Evaluate the effectiveness of play intervention in terms of reducing anxiety among hospitalized children.

Section V: Associate the post-test anxiety level with selected demographic variables among hospitalized children.

SECTION I

DEMOGRAPHIC PROFILES OF THE SAMPLES

TABLE 1

Description of Frequency and Percentage distribution of Demographic profiles of hospitalized children

VARIABLES		EXPERIMENTAL GROUP		CONTROL GROUP	
		Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)
AGE	9 years	2	6.67	11	36.67
	10 years	9	30.00	9	30
	11 years	10	33.33	2	6.67
	12 years	9	30.00	8	26.67
SEX	Male	18	60.00	20	66.67
	Female	12	40.00	10	33.33
BIRTH ORDER	First	11	36.67	15	50
	Second	12	40.00	7	23.33
	Third and above	7	23.33	8	26.67
RESIDENCE	Rural	20	66.67	17	56.67
	Urban	10	33.33	13	43.33
	Semi	0	0.00	0	0
FAMILY	Joint	2	6.67	6	20
	Nuclear	28	93.33	24	80
	Separated	0	0.00	0	0
EDUCATION STANDARD	4 Std	7	23.33	7	23.3
	5 Std	4	13.33	16	53.3
	6 Std	10	33.33	2	6.67
	7 Std	9	30.00	5	16.67

PARENT'S EDUCATION	Primary	14	46.67	20	66.67
	Secondary	2	6.67	2	6.67
	Graduate	0	0.00	0	0
	Ill Literate	14	46.67	8	26.67
INCOME	< 2000	24	80.00	9	30
	2001 - 4000	2	6.67	14	46.67
	4001 - 6000	2	6.67	7	23.33
	> 6001	2	6.67	0	0
RELIGION	Hindu	30	100.00	30	100
	Muslim	0	0.00	0	0
	Christian	0	0.00	0	0
	Others	0	0.00	0	0
PREVIOUS EXPOSURE	Frequently	3	10.00	5	16.67
	Occasionally	6	20.00	8	26.67
	Rarely	21	70.00	17	56.67

Above table reveals that the demographic information of children those who were participated in the study.

In considering the age in control group, 36.67% of children were belongs to 9 years of age, 30% were in 10 years, 26.67% of were in 12 years of age, and remaining 6.67% of children were in 11 years of age. Most of the children were from the age group of 9 yrs.

Age wise distribution in experimental group, 33.33% of children were in 11 years of age, 30% were in 10 years, 30% were in 12 years, and remaining 6.67% of children were in 9 years of age. Most of the children were from the age group of 11 yrs.

Regarding sex wise distribution in control group, majority 66.67% of children were male and 33.33% of female children. Most of the children are male. In experimental group, 60% of children were male and 40% of children were female children. Most of the children are male.

Based on birth order wise distribution in control group, 50% of children were in first child, 23.33% of children were in second child and 26.67% of children were in third and above child. Most of the children are first child. In experimental group, 40% of children were in second child, 36.67% of children were in first child and 23.33% of children were in third and above child. Majority of the child were second birth order.

Regarding residence wise distribution in control group, 56.67% of children were from rural areas and 43.33% of children were from urban areas. Most of the children were from the rural areas. In experimental group, 66.67% of children were from rural areas and 33.33% of children were from urban areas. Most of the children were from the rural areas.

With the view of the type of family wise distribution in control group, 80% of children were from nuclear family and 20% of children were from joint family. In experimental group, 93.33% of children were from nuclear family and 6.67% of children were from joint family. Majority of the children (93.33% and 80%) were from nuclear family in experimental and control group.

Regard the standard of studying wise distribution in control group, 53.33% were studying 5 std, 23.33% were studying 4 std, 16.67% were studying 7 std and remaining 6.67% were studying 6 std. Most of the children were studying 5 std. In experimental group, 33.33% were studying 6 std, 30% were studying 7 std, 23.33% were studying 4 std and 13.33% were studying 5 std. Most of the children were studying 6 std.

Considering parent's education wise distribution in control group, 66.67% of parents were having primary education, 26.67% of parents were having no formal education and only 6.67% of parents were have secondary education and none of them were of graduates. Most of the parents were in primary school education. In experimental group, 46.67% of parents were having primary education, 46.67% of parents were having no formal education and only 6.67% of parents were have secondary education and none of them were of graduates. Most of the parents were in primary school education.

Regarding income in control group, 46.67% of children were from 2001-4000, 30% of children were from <2000 and 23.33% of children were from 4001- 6000. In

experimental group, 80% of children were <2000, 6.67% of children were 2001-4000, 6.67% of children were >6001 and 6.67% were 4001-6000.

Almost 100 % were belongs to Hindu in both experimental and control group.

In previous exposure to hospital in control group, 56.67% of children have visited hospital rarely, 26.67% have visited occasionally and 16.67% were frequently visited . In experimental group, 70% of children have visited hospital rarely, 20% have visited occasionally and 10% were frequently visited. Most of the children rarely visited the hospital in both group

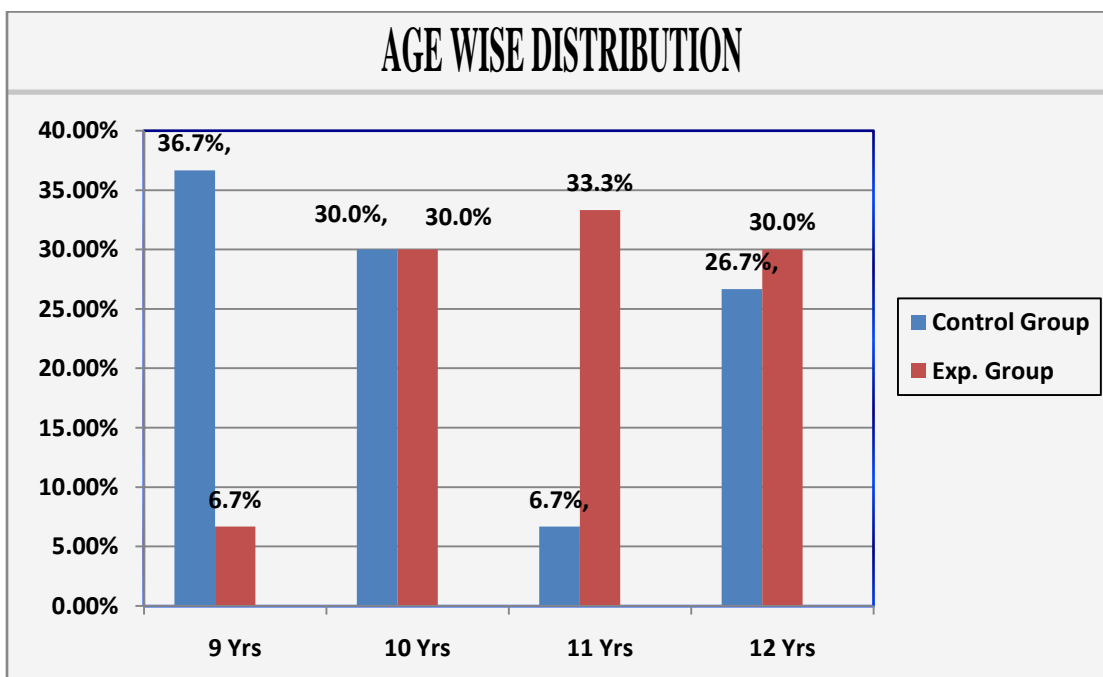


Figure.3. Percentage distribution of age.

The bar diagram reveals majority of children 36.7 % and 33.3 % in control and experimental group belongs to 9 yrs and 11 yrs respectively.

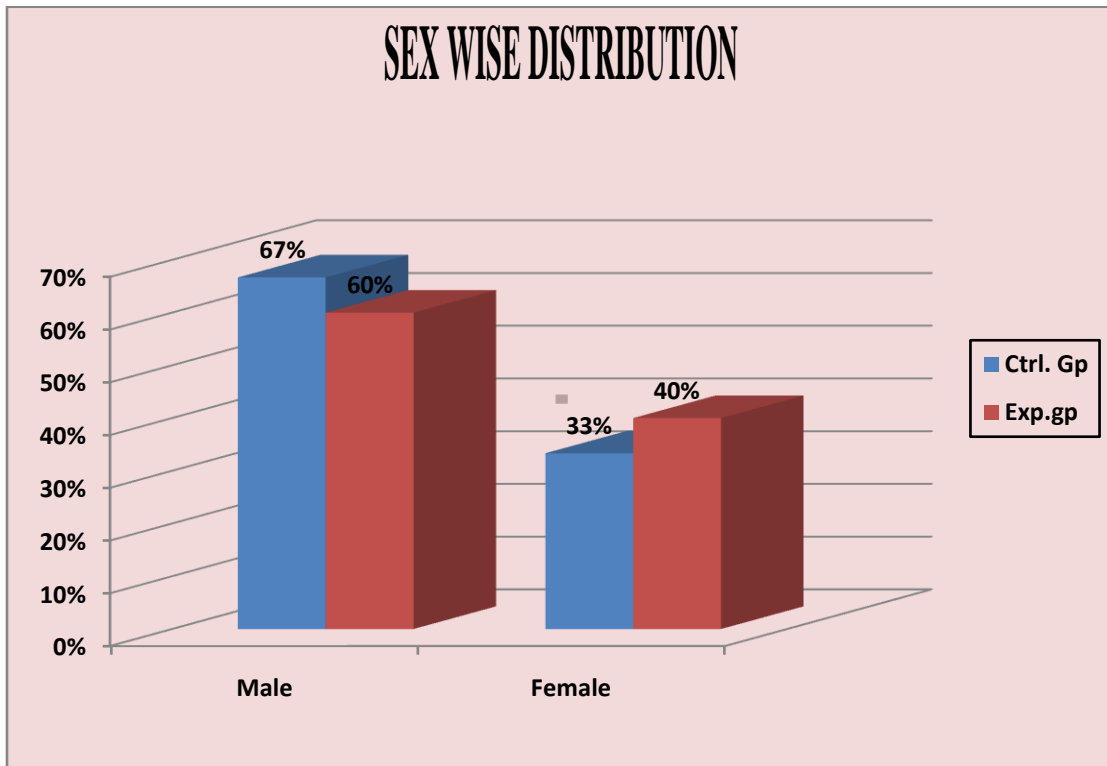


Figure.4 Percentage distribution of sex.

The Multiple bar diagram reveals majority of children 67% are male in control group, and 40% are female children in experimental group.

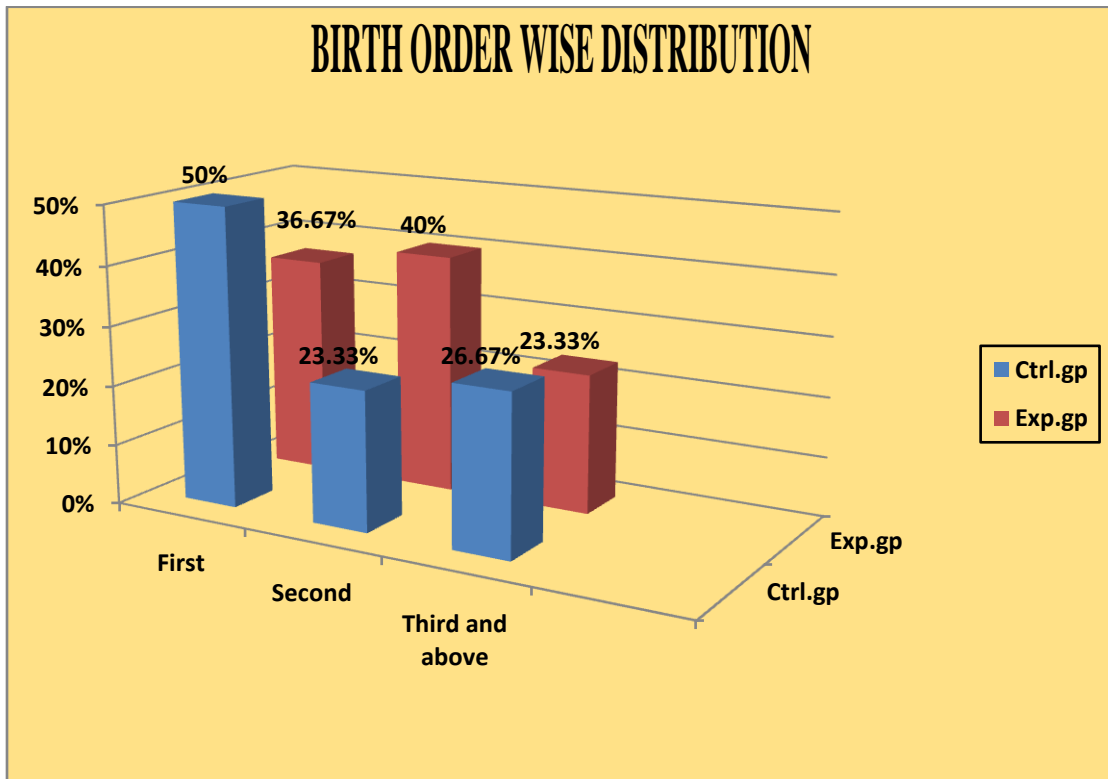


Figure.5 Percentage distribution of birth order.

The Multiple bar diagram reveals that 50% of children are first birth order in control group and 40% of children are second birth order in experimental group.

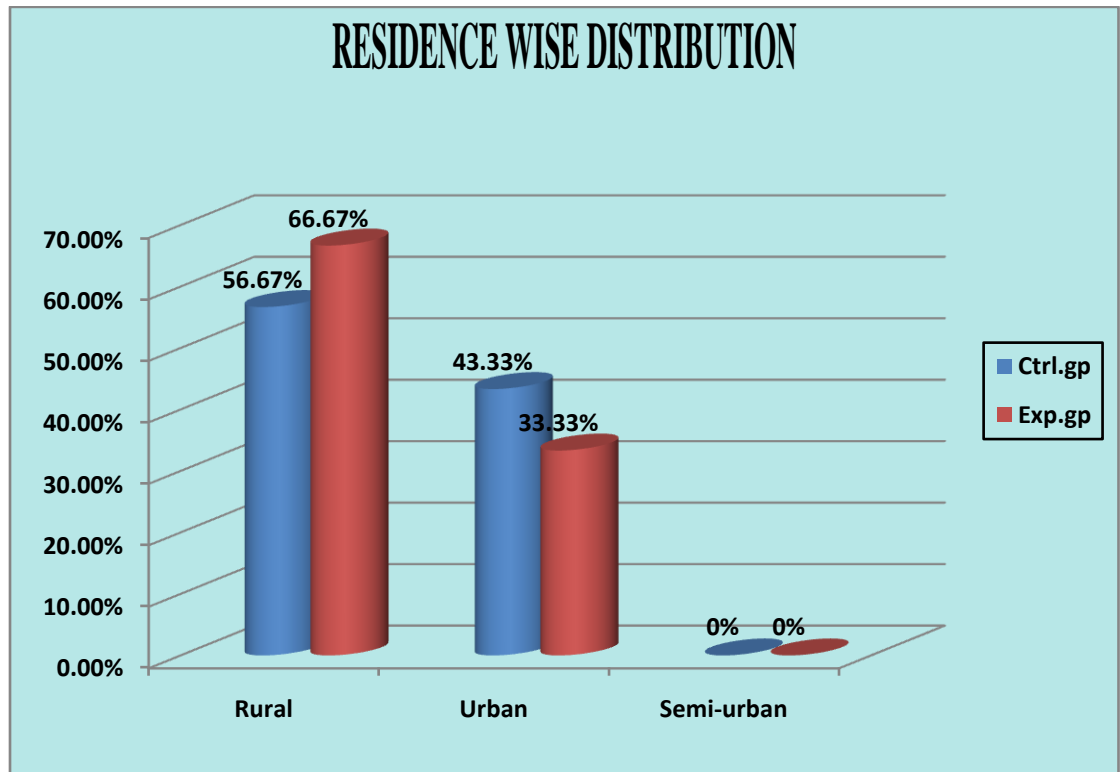


Figure.6 Percentage distribution of Residence

The Multiple bar diagram reveals that 66.67% and 56.67% in experimental and control group belongs to rural areas respectively.

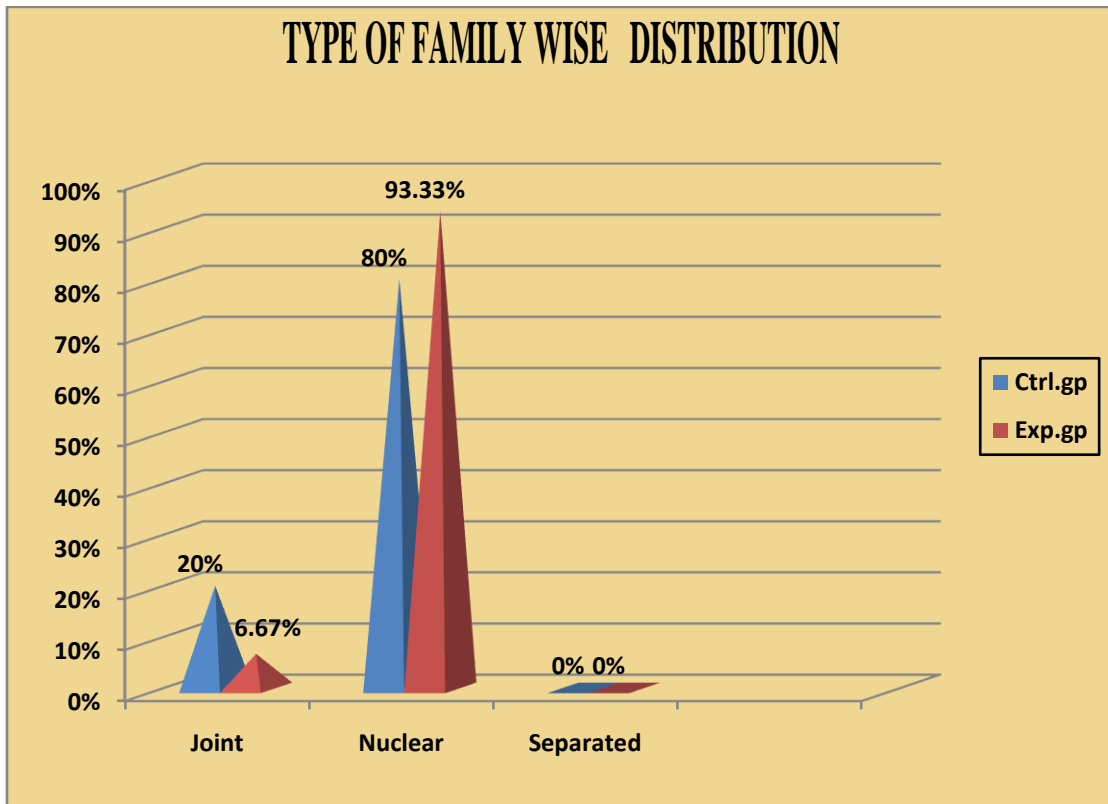


Figure.7 Percentage distribution of type of family

The multiple bar diagram reveals that 93.33% and 80% in experimental and control group belongs to nuclear family respectively.

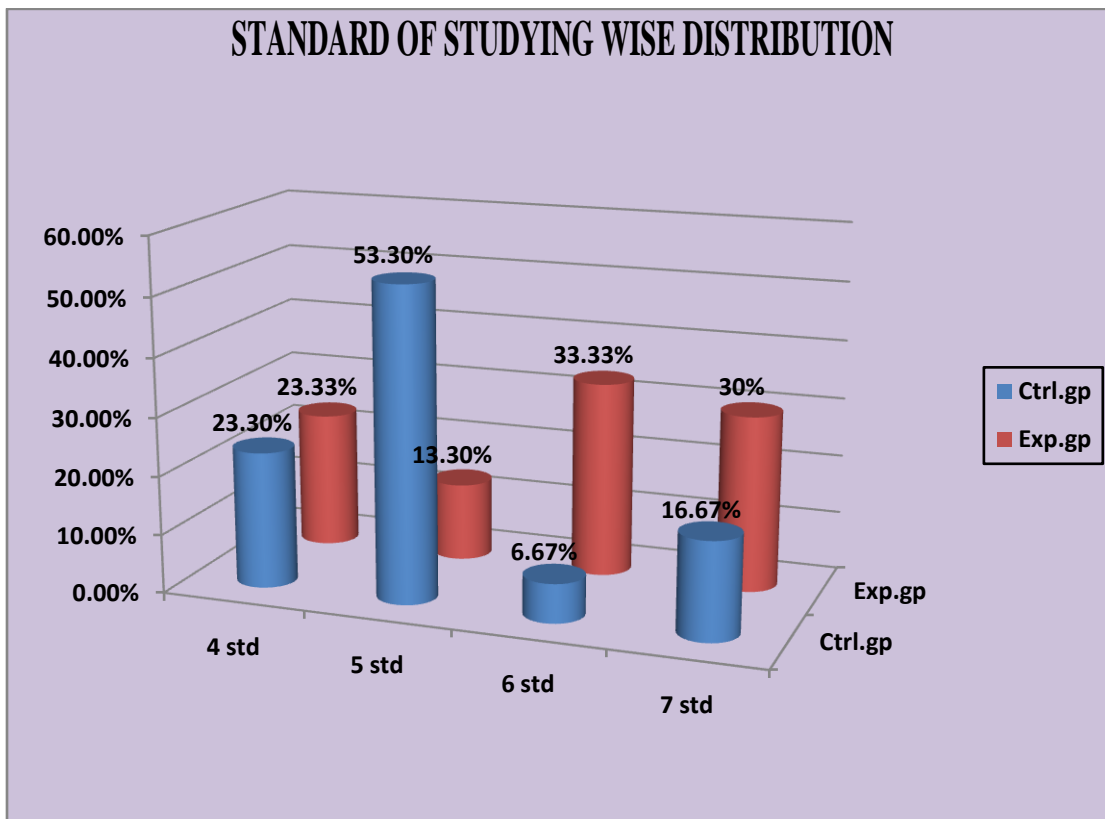


Figure.8 Percentage distribution of standard of studying wise distribution

Multiple bar diagram reveals that 53.3% are studying in 5th standard in control group and 33.33% are studying 6th standard in experimental group.

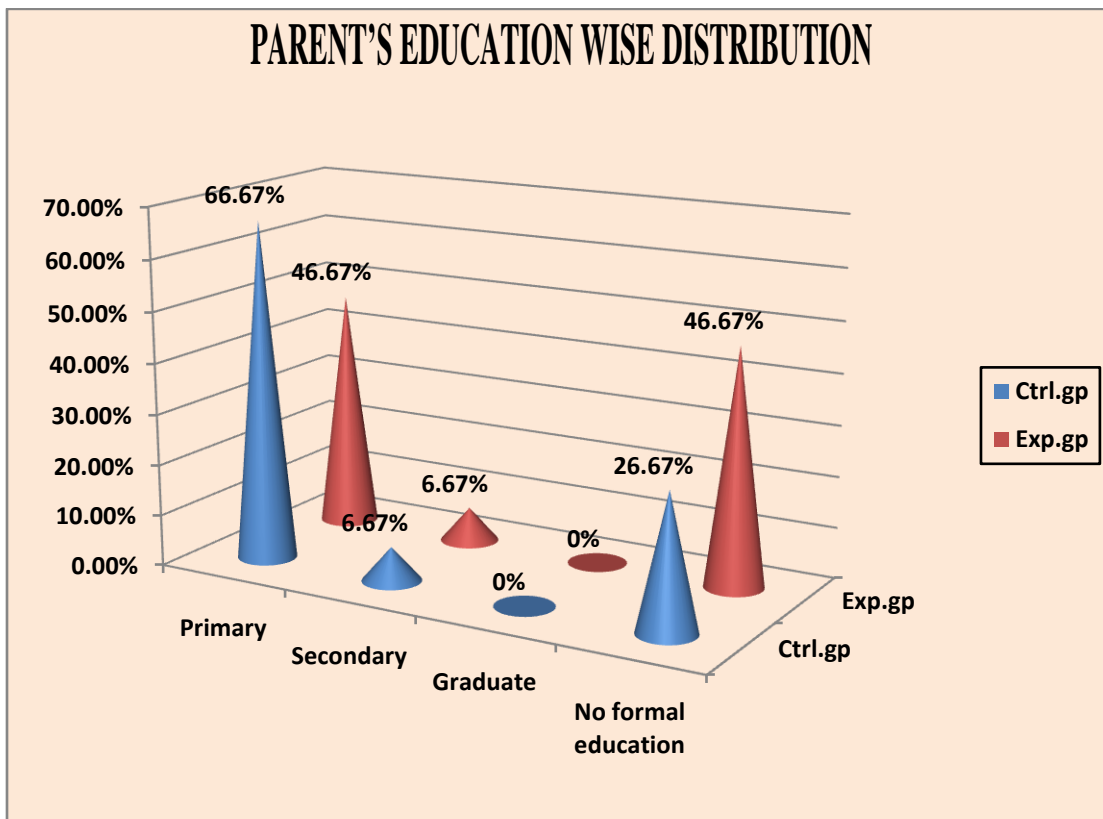


Figure.9 Percentage distribution of parent's education

Multiple cone diagram reveals that 66.67% parents have primary education in control group and 46.67% parents have no formal education as well as primary education in experimental group.

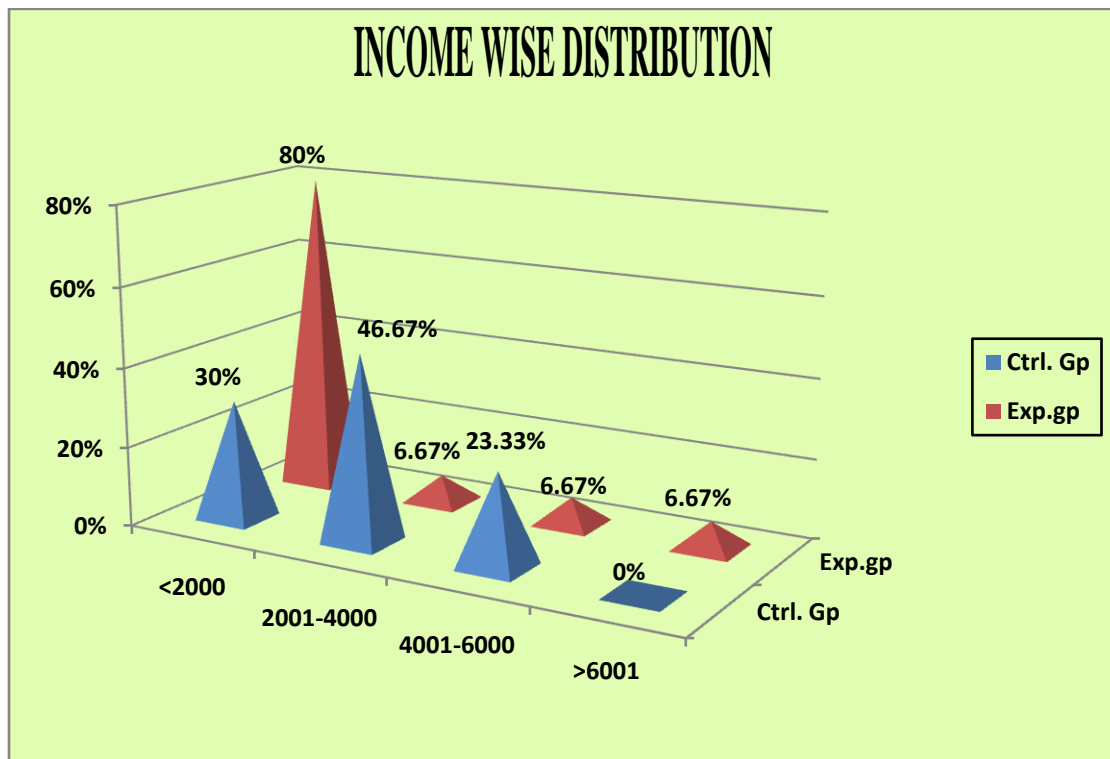


Figure.10 Percentage distribution of Income

Multiple cone diagram reveals that 80% of parents in experimental group are earning less than 2000 rupees and 46.67% of parents in control group are earning Rs. 2001-4000.

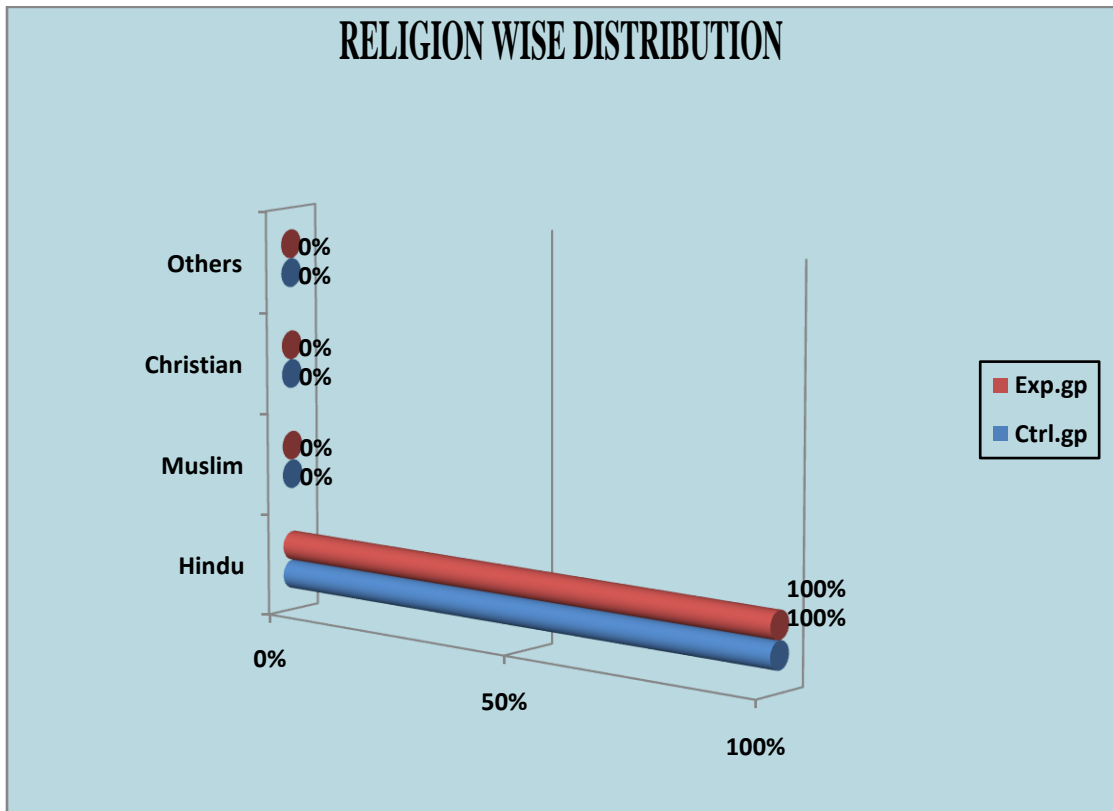


Figure.11 Percentage distribution of Religion

Multiple bar diagram reveals that all the children in experimental and control group belong to Hindu Religion.

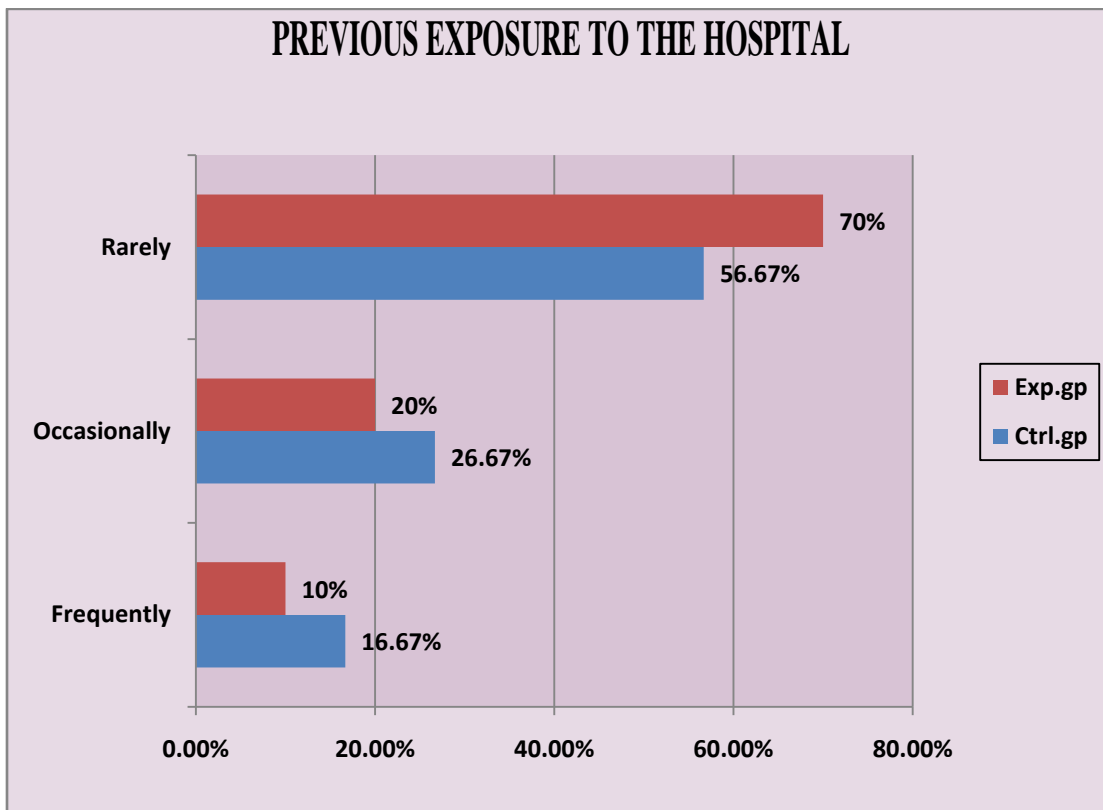


Figure.12 Percentage distribution of Previous exposure to Hospital

Multiple bar diagram shows that 70% in experimental group and 56.67% in control group have visited the hospital rarely.

SECTION II:

Assessment of pre and post level of anxiety among hospitalized children.

Table No.2

Area wise distribution of mean, SD for pre test of anxiety level among hospitalized children (9-12yrs).

EXPERIMENTAL GROUP - PRE TEST				CONTROL GROUP - PRE TEST			
AREA	Max Score	Anxiety		AREA	Max Score	Anxiety	
		Mean	SD			Mean	SD
Performance Situation	9	3.38	2.81	Performance Situation	9	2.233	1.478
Separation	10	4.4	1.886	Separation	10	3.633	1.325
Generalized	8	3.1	1.373	Generalized	8	2.333	1.154
Specific Phobia	4	2.96	0.999	Specific Phobia	4	2.3	1.465
Acute Physical Signs symptoms	13	2.16	1.64	Acute Physical Signs symptoms	13	1.566	1.104
Others	6	2.1	1.18	Others	6	1.73	1.484
Overall	50	17.86	5.11	Overall	50	13.8	4.97

Table.2. represents that the mean and S.D value of pre-test anxiety level in experimental group Mean=17.86, S.D = 5.11 and also it shows that the highest pre test mean level is 4.4. Through this the researcher observed that the higher level of anxiety in

pre-test belongs to the area of separation. The same wise the lower level of anxiety in pre-test belongs to the area of others.

The mean and S.D value of pre-test anxiety level in control group Mean=13.8, S.D = 4.97 and also it shows that the highest pre test mean level is 3.63. Through this the researcher observed that the higher level of anxiety in pre-test belongs to the area of separation. The same wise the lower level of anxiety in pre-test belongs to the area of acute physical signs and symptoms.

Table No.3.

Area wise distribution of mean, SD for post test anxiety level among hospitalized children (9-12yrs).

EXPERIMENTAL GROUP - POST TEST				CONTROL GROUP - POST TEST			
AREA	Max Score	Anxiety		AREA	Max Score	Anxiety	
		Mean	SD			Mean	SD
Performance Situation	9	0.96	0.808	Performance Situation	9	1.333	0.802
Separation	10	1.26	0.58	Separation	10	1.8	0.55
Generalized	8	0.333	0.606	Generalized	8	1.033	0.668
Specific Phobia	4	0.333	0.474	Specific Phobia	4	0.6333	0.668
Acute Physical Signs symptoms	13	0.333	0.479	Acute Physical Signs symptoms	13	0.8	0.55
Others	6	0.36	0.49	Others	6	0.733	0.739
Overall	50	3.6	1.16	Overall	50	6.333	2.294

Table.3. shows that the mean and S.D value of post-test anxiety level in experimental group Mean=3.6 and S.D = 1.16. So, comparing to pre-test mean and S.D value, the post -test mean and S.D value is decreased. Through this inferential statistical finding researcher concluded that the play therapy will give the significant reduction of anxiety among hospitalized children. Also the post-test anxiety level in the area of separation is highly reduction of anxiety was observed from the evidence of mean value from 4.44 to 1.26.

The mean and S.D value of post-test anxiety level in control group Mean=6.333 and S.D = 2.294 so, comparing to pre-test mean and S.D value, the post -test mean and S.D value is slightly decreased. Through this inferential statistical finding researcher concluded slight reduction of anxiety among hospitalized children occurs in control group. Also the post-test anxiety level in the area of separation are highly reduction of anxiety was observed from the evidence of mean value from 3.63 to 1.8.

SECTION III:

Assessment of area wise (item analysis) anxiety level in pre and post test among hospitalized children.

Table No .4.

Item wise analysis of pre and post test correct response and incorrect response regarding the area of “performance situation” for assess the effectiveness of play material.

EXPERIMENTAL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Fear of Participating in group activities	13	43	17	57	3	10	27	90
Fear of going to any events	5	17	25	83	3	10	27	90
Fear of talking with a stranger	8	27	22	73	0	0	30	100
Fear of talking with others	16	53	14	47	6	20	24	80
Refuses to talk in front of the groups	8	27	22	73	2	7	28	93
Refuses to write in front of others	6	20	24	80	0	0	30	100
Refuses to eat in others	3	10	27	90	0	0	30	100
Refuses to use a bathroom	24	80	6	20	12	40	18	60
Refuses to change the clothes in others are present	11	37	19	63	3	10	27	90

Table No .4.1. shows that, Item wise analysis of correct response (Yes) and incorrect response(No) regarding the area of “performance situation” in this section experimental post-test incorrect responses are lower than the pre-test incorrect response. So, after getting play intervention the significance reduction of anxiety in the area of “performance situation” and also it shows specifically that the 8th item (Refuses to use a bathroom). In this particular activity 80% of children were incorrect responses in pre-test than after the play intervention the particular this activity is decreased incorrect responses to 40%. So, significant reduction of anxiety level were observed.

CONTROL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Fear of Participating in group activities	4	13	26	87	4	13	26	87
Fear of going to any events	7	23	23	77	2	7	28	93
Fear of talking with a stranger	8	27	22	73	4	13	26	87
Fear of talking with others	11	37	19	63	9	30	21	70
Refuses to talk in front of the groups	4	13	26	87	2	7	28	93
Refuses to write in front of others	2	7	28	93	0	0	30	100
Refuses to eat in others	4	13	26	87	2	7	28	93
Refuses to use a bathroom	19	63	11	37	17	57	13	43
Refuses to change the clothes in others are present	8	27	22	73	0	0	30	100

Table No .4.2. shows that, Item wise analysis of correct response (Yes) and incorrect response(No) regarding the area of “performance situation” in this section control group post-test incorrect responses are lower than the pre-test incorrect response. So, after getting play therapy the significance reduction of anxiety in the area of “performance situation “and also it shows specifically that the 8th item (Refuses to use a bathroom). In this particular activity 63% of children were incorrect responses in pre-test than post test incorrect responses were slightly decreased to 57%. So, significant slight reduction of anxiety level were observed.

Table No.5.

Item wise analysis of pre and post test correct response and incorrect response regarding the area of “separation” for assess the effectiveness of play material .

EXPERIMENTAL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Worry about harm happening to attachment figures	22	73	8	27	4	13	26	87
Worry about harm befalling self, including the fear of dying	0	0	30	100	0	0	30	100
Distress when separation occurs or is anticipated	22	73	8	27	5	17	25	83
Fear or reluctance to be alone	0	0	30	100	3	10	27	90
Reluctance or refusal to go to school or elsewhere	2	7	28	93	0	0	30	100
complaints of physical symptoms when separation occurs or is anticipated	7	23	23	77	0	0	30	100
Reluctance or refusal to go to sleep alone	20	67	10	33	8	27	22	73
Reluctance or refusal to sleep away from home	14	47	16	53	4	13	26	87
Nightmares with a separation theme	0	0	30	100	0	0	30	100
Clings to parent, or follows parent around the ward	25	83	5	17	14	47	16	53

Table No.5.1. shows that, Item wise analysis of correct response and incorrect response regarding the area of “separation” in this section experimental pre-test incorrect responses are higher than the post-test incorrect response. So, after play intervention the significance reduction of anxiety in the area of “separation” among hospitalized children (9-12yrs) and also it shows specifically that the 10th item (Clings to parent, or follows parent around the ward). In this particular activity 83% of children were incorrect responses in pre-test than after the play intervention the particular this activity is reduced to 47%. The researcher observed significant reduction of anxiety level in post-test.

CONTROL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Worry about harm happening to attachment figures	16	53	14	47	2	7	28	93
Worry about harm befalling self, including the fear of dying	1	3	29	97	1	3	29	97
Distress when separation occurs or is anticipated	15	50	15	50	8	27	22	73
Fear or reluctance to be alone	14	47	16	53	7	23	23	77
Reluctance or refusal to go to school or elsewhere	4	13	26	87	4	13	26	87
complaints of physical symptoms when separation occurs or is anticipated	5	17	25	83	2	7	28	93
Reluctance or refusal to go to sleep alone	17	57	13	43	6	20	24	80
Reluctance or refusal to sleep away from home	17	57	13	43	6	20	24	80
Nightmares with a separation theme	0	0	30	100	0	0	30	100
Clings to parent, or follows parent around the ward	20	67	10	33	18	60	12	40

Table No.5.2. shows that, Item wise analysis of correct response and incorrect response regarding the area of “separation” in this section control group pre-test incorrect responses are higher than the post-test correct response. So, significance slight reduction of anxiety in the area of “separation” among hospitalized children (9-12yrs) and also it shows specifically that the 10th item (Clings to parent, or follows parent around the ward). In this particular activity 67% of children were incorrect responses in pre-test than post-test incorrect responses is slightly reduced to 60%. The researcher observed significant slight reduction of anxiety level in post-test.

Table No.6.

Item wise analysis of pre and post test correct response and incorrect response regarding the area of “generalized” for assess the effectiveness of play material.

EXPERIMENTAL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Excessive worry about everyday or real life problems	27	90	3	10	2	7	28	93
Restlessness or feeling keyed up or on edge	0	0	30	100	0	0	30	100
Easily fatigued	18	60	12	40	0	0	30	100
Difficulty concentrating or mind going blank	15	50	15	50	0	0	30	100
Irritability	12	40	18	60	3	10	27	90
Muscle tension or nonspecific tension	4	13	26	87	0	0	30	100
Sleep disturbance, especially difficulty falling asleep	10	33	20	67	0	0	30	100
Dread or fearful anticipation (non specific)	7	23	23	77	5	17	25	83

Table No.6.1. shows that, Item wise analysis of correct response and incorrect response regarding the area of “Generalized” in this section experimental post-test incorrect responses are lower than the pre-test incorrect response. So, after getting play intervention the significance reduction of anxiety in the area of “Generalized” among hospitalized children (9-12yrs) and also it shows specifically that the 1st item (Excessive

worry about everyday or real life problems). In this particular activity 90% of children were incorrect responses in pre-test than after the play intervention the particular this activity is reduced to 7%.

CONTROL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Excessive worry about everyday or real life problems	18	60	12	40	2	7	28	93
Restlessness or feeling keyed up or on edge	0	0	30	100	0	0	30	100
Easily fatigued	13	43	17	57	5	17	25	83
Difficulty concentrating or mind going blank	6	20	24	80	4	13	26	87
Irritability	19	63	11	37	9	30	21	70
Muscle tension or nonspecific tension	9	30	21	70	8	27	22	73
Sleep disturbance, especially difficulty falling asleep	3	10	27	90	3	10	27	90
Dread or fearful anticipation (non specific)	2	7	28	93	0	0	30	100

Table No.6.2. shows that, Item wise analysis of correct response and incorrect response regarding the area of “Generalized” in this section control group post-test incorrect responses are lower than the pre-test incorrect response. So, after post test the significance reduction of anxiety in the area of “Generalized” among hospitalized children (9-12yrs) and also it shows specifically that the 5th item (Irritability). In this particular activity 63% of children were incorrect responses in pre-test than post test the particular this activity is slightly reduced to 30%.

Table No 7.

Item wise analysis of pre and post test correct response and incorrect response regarding the area of “specific phobia” for assess the effectiveness of play material.

EXPERIMENTAL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Health personnel specify (e.g. Doctors, Nurses)	15	50	15	50	0	0	30	100
Hospital Environment (e.g. ward, injection room) specify	28	93	2	7	2	7	28	93
Blood - Injection - injury : specify	30	100	0	0	6	20	24	80
Situational (e.g. During Procedures, Doctor Rounds) : Specify	16	53	14	47	2	7	28	93

Table No .7.1: shows that, Item wise analysis of correct response and incorrect response regarding the area of “**specific phobia**” in this section experimental group pre-test incorrect responses are higher than the post-test incorrect response. So, after getting play intervention the significance reduction of anxiety in the area of “**specific phobia**” among hospitalized children (9-12yrs) and also it shows specifically that the third item (Blood - Injection - injury : specify). In this particular activity 100% of children were incorrect responses in pre-test than after the play intervention the particular this activity is reduced to 20%.

CONTROL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Health personnel specify (e.g. Doctors, Nurses)	14	47	16	53	12	40	18	60
Hospital Environment (e.g. ward, injection room) specify	18	60	12	40	4	13	26	87
Blood - Injection - injury : specify	24	80	6	20	1	3	29	97
Situational (e.g. During Procedures, Doctor Rounds) : Specify	13	43	17	57	2	7	28	93

Table No .7.2: shows that, Item wise analysis of correct response and incorrect response regarding the area of “**specific phobia**” in this section control group pre-test incorrect responses are higher than the post-test incorrect response. So, post test the significance reduction of anxiety in the area of “**specific phobia**” among hospitalized children (9-12yrs) and also it shows specifically that the third item (Blood - Injection - injury : specify). In this particular activity 43% of children were incorrect responses in pre-test than in post test the particular this activity is reduced to 7%.

Table No.8.

Item wise analysis of pre and post test correct response and incorrect response regarding the area of “acute physical signs and symptoms” for assess the effectiveness of play therapy.

EXPERIMENTAL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Blushing	7	23	23	77	0	0	30	100
Feels Paralyzed	2	7	28	93	0	0	30	100
Trembling or shaking	13	43	17	57	0	0	30	100
Feels dizzy, unsteady, lightheaded or going to pass out	19	63	11	37	0	0	30	100
Palpitations or pounding heart	3	10	27	90	7	23	23	77
Difficult breathing : (sensation of shortness of breath, smothering or choking)	7	23	23	77	3	10	27	90
Chills or hot flashes	9	30	21	70	0	0	30	100
Sweating	3	10	27	90	0	0	30	100
Feels sick to stomach, nausea or abdominal distress	0	0	30	100	0	0	30	100
Recurrent urge to go to bathroom	0	0	30	100	0	0	30	100
Chest pain or discomfort	0	0	30	100	0	0	30	100
Paresthesias (numbness or tingling sensation in fingers, toes, or peri-oral region)	0	0	30	100	0	0	30	100
Problems swallowing or eating	2	7	28	93	0	0	30	100

Table No. 8.1. shows that, Item wise analysis of correct response and incorrect response regarding the area of “**acute physical signs and symptoms**” in this section experimental group pre-test incorrect responses are higher than the post-test incorrect response. So, after getting play intervention the significance reduction of anxiety in the area of “**acute physical signs and symptoms**” among hospitalized children (9-12yrs) and also it shows specifically that the 4th item (Feels dizzy, unsteady, lightheaded or going to pass out). In this particular activity 63% of children were incorrect responses in pre-test than after the play intervention the particular this activity is reduced to 0%.

CONTROL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Blushing	3	10	27	90	1	3	29	97
Feels Paralyzed	4	13	26	87	4	13	26	87
Trembling or shaking	7	23	23	77	2	7	28	93
Feels dizzy, unsteady, lightheaded or going to pass out	0	0	30	100	0	0	30	100
Palpitations or pounding heart	11	37	19	63	9	30	21	70
Difficult breathing : (sensation of shortness of breath, smothering or choking)	2	7	28	93	1	3	29	97
Chills or hot flashes	10	33	20	67	0	0	30	100
Sweating	8	27	22	73	5	17	25	83

Feels sick to stomach, nausea or abdominal distress	0	0	30	100	0	0	30	100
Recurrent urge to go to bathroom	2	7	28	93	2	7	28	93
Chest pain or discomfort	0	0	30	100	0	0	30	100
Paresthesias (numbness or tingling sensation in fingers, toes, or peri-oral region)	0	0	30	100	0	0	30	100
Problems swallowing or eating	0	0	30	100	0	0	30	100

Table No. 8.2 shows that, Item wise analysis of correct response and incorrect response regarding the area of “**acute physical signs and symptoms**” in this section control group pre-test incorrect responses are higher than the post-test incorrect response. So, in control group the significance reduction of anxiety in the area of “**acute physical signs and symptoms**” among hospitalized children (9-12yrs) and also it shows specifically that the 8th item (Palpitations or pounding heart). In this particular activity 37% of children were incorrect responses in pre-test than post test the particular this activity is reduced to 30%.

Table No.9.

Item wise analysis of pre and post test correct response and incorrect response regarding the area of “others” for assess the effectiveness of play material.

EXPERIMENTAL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Crying spells when in anxiety provoking situations	15	50	15	50	6	20	24	80
Temper tantrums when in anxiety provoking situations	8	27	22	73	2	7	28	93
Needs to flee certain anxiety provoking situations	3	10	27	90	0	0	30	100
Keeps distance from other people	15	50	15	50	3	10	27	90
Fear of losing control or going crazy	0	0	30	100	0	0	30	100
Derealization (feeling of unreality)	22	73	8	27	0	0	30	100

Table No.9.1. shows that, Item wise analysis of correct response and incorrect response regarding the area of “others” in this section experimental group pre-test incorrect responses are higher than the post-test incorrect response. So, after getting play intervention the significance reduction of anxiety in the area of “others” among hospitalized children (9-12yrs) and also it shows specifically that the 6th item (Derealization- feeling of unreality). In this particular activity 73% of children were incorrect responses in pre-test than after the play intervention the particular this activity is reduced to 0%. Significant reduction of anxiety level was observed.

CONTROL GROUP

Items	Pre Test Responses				Post Test Responses			
	Incorrect (o)		correct (1)		Incorrect (o)		correct (1)	
	f	%	f	%	f	%	f	%
Crying spells when in anxiety provoking situations	15	50	15	50	13	43	17	57
Temper tantrums when in anxiety provoking situations	14	47	16	53	17	57	13	43
Needs to flee certain anxiety provoking situations	2	7	28	93	0	0	30	100
Keeps distance from other people	6	20	24	80	2	7	28	93
Fear of losing control or going crazy	4	13	26	87	0	0	30	100
Derealization (feeling of unreality)	11	37	19	63	0	0	30	100

Table No.9.2. shows that, Item wise analysis of correct response and incorrect response regarding the area of “**others**” in this section control group pre-test incorrect responses are higher than the post-test incorrect response. So, in control group the significance reduction of anxiety in the area of “**others**” among hospitalized children (9-12yrs) and also it shows specifically that the first item (Crying spells when in anxiety provoking situations). In this particular activity 50% of children were incorrect responses in pre-test than control group the particular this activity is slightly reduced to 43%.Slight reduction of anxiety level was observed.

SECTION IV:

Evaluate the effectiveness of play material in terms of reducing anxiety among hospitalized children.

Table No.10

Paired ‘t’- test to evaluate the effectiveness of play material in terms of reducing anxiety among hospitalized children(9-12yrs)

EXPERIMENTAL GROUP

AREA	‘t’ value	Levels of Significance	‘p’ value	Significance
Performance Situation	4.571	0.002	P < 0.05	S
Separation	3.164	0.011	P < 0.05	S
Generalized	3.425	0.011	P < 0.05	S
Specific Phobia	6.443	0.008	P < 0.05	S
Acute Physical Signs symptoms	2.421	0.032	P < 0.05	S
Others	2.726	0.042	P < 0.05	S
Overall	13.83	0.003	P < 0.05	S

(df=29, table value =1.699, p<0.05 highly significant)

Table No 10: shows that, paired ‘t’- test for experimental group pre and post test of play intervention. The “t” value of overall areas are 13.83, df=29 and the table value is 1.699. The calculated ‘t’ value (13.83) was much higher than the table value at 0.05 level of significance. So, the researcher observed that there is a **highly significant reduction of anxiety** after getting play intervention among hospitalized children and also

it shows specifically that the particular area (Performance Situation). In this area the ‘t’ value is 4.571. So, it shows in this particular areas had the highly reduction of anxiety in post-test. Hence, by it is a true difference Not by the chance.

CONTROL GROUP

AREA	‘t’ value	Levels of Significance	‘p’ value	Significance
Performance Situation	3.839	0.005	P < 0.05	S
Separation	3.323	0.009	P < 0.05	S
Generalized	2.36	0.050	P < 0.05	S
Specific Phobia	2.887	0.063	P > 0.05	NS
Acute Physical Signs symptoms	2.185	0.049	P < 0.05	S
Others	1.796	0.132	P > 0.05	NS
Overall	2.383	0.054	P > 0.05	NS

(df=29, table value =1.699 , p<0.05 highly significant)

Table No 10: shows that, paired ‘t’- test for control group pre and post test of play intervention. The “t” value of overall areas are 2.383, df=29 and the table value is 1.699. In the level of significance p>0.05. So, the researcher observed that there is **no significant reduction of anxiety** in control group among hospitalized children. In areas of performance situation ‘t’ value is 3.839. It shows significant reduction of anxiety in post-test. The other areas of significant reduction of anxiety are observed in separation, generalized, and acute physical signs and symptoms. Hence, by it is a true difference Not by the chance.

SECTION V

Associate the post-test anxiety level with selected demographic variables among hospitalized children.

Table No.11.

Association between experimental group post- test anxiety levels with demographical variables

VARIABLES		Border Line	Mild	Moderate	Severe	Very severe	Chi Square	'p' Value	Significance
AGE	9 years	3	0	0	0	0	0.500	0.779 P > 0.05	NS
	10 years	9	0	0	0	0			
	11 years	10	0	0	0	0			
	12 years	9	0	0	0	0			
SEX	Male	18	0	0	0	0	0.672	1.000 P > 0.05	NS
	Female	12	0	0	0	0			
BIRTH ORDER	First	11	0	0	0	0	0.533	1.000 P > 0.05	NS
	Second	12	0	0	0	0			
	Third and above	7	0	0	0	0			
RESIDENCE	Rural	20	0	0	0	0	0.624	1.000 P > 0.05	NS
	Urban	10	0	0	0	0			
	Semi	0	0	0	0	0			
FAMILY	Joint	2	0	0	0	0	0.732	1.000 P > 0.05	NS
	Nuclear	28	0	0	0	0			
	Separated	0	0	0	0	0			

EDUCATION STANDARD	4 Std	7	0	0	0	0	0.562	1.000 P > 0.05	NS
	5 Std	4	0	0	0	0			
	6 Std	10	0	0	0	0			
	7 Std	9	0	0	0	0			
PARENT'S EDUCATION	Primary	14	0	0	0	0	0.500	0.779 P > 0.05	NS
	Secondary	2	0	0	0	0			
	Graduate	0	0	0	0	0			
	No formal education	14	0	0	0	0			
INCOME	< 2000	24	0	0	0	0	1.000	0.317 P > 0.05	NS
	2001 - 4000	2	0	0	0	0			
	4001 - 6000	2	0	0	0	0			
	> 6001	2	0	0	0	0			
RELIGION	Hindu	30	0	0	0	0	1.000	0.317 P > 0.05	NS
	Muslim	0	0	0	0	0			
	Christian	0	0	0	0	0			
	Others	0	0	0	0	0			
PREVIOUS EXPOSURE	Frequently	3	0	0	0	0	0.587	1.000 P > 0.05	NS
	Occasionally	6	0	0	0	0			
	Rarely	21	0	0	0	0			

(*P<0.05 significant, ** p<0.01 significant, ***p<0.001 significant)

Table.11. shows that, in experimental group no significant association had been found out between the demographic variables of children and the level of anxiety among hospitalized children belong to post test. There is no association between the level of anxiety among hospitalized children and other demographic variables in experimental group.

Table.12.**Association between control group post-test anxiety level with demographic variables**

VARIABLES		Border Line	Mild	Moderate	Severe	Very severe	Chi Square	'p' Value	Significance
AGE	9 years	10	1	0	0	0	0.786	1.000 P > 0.05	NS
	10 years	9	0	0	0	0			
	11 years	1	0	1	0	0			
	12 years	7	1	0	0	0			
SEX	Male	16	4	0	0	0	0.864	1.000 P > 0.05	NS
	Female	5	2	3	0	0			
BIRTH ORDER	First	12	1	2	0	0	0.764	1.000 P > 0.05	NS
	Second	6	0	1	0	0			
	Third and above	7	1	0	0	0			
RESIDENCE	Rural	12	3	2	0	0	0.532	1.000 P > 0.05	NS
	Urban	9	1	3	0	0			
	Semi	0	0	0	0	0			
FAMILY	Joint	5	1	0	0	0	0.542	1.000 P > 0.05	NS
	Nuclear	19	3	2	0	0			
	Separated	0	0	0	0	0			
EDUCATION STANDARD	4 Std	5	1	1	0	0	0.642	1.000 P > 0.05	NS
	5 Std	13	1	2	0	0			
	6 Std	2	0	0	0	0			
	7 Std	4	1	0	0	0			

PARENT'S EDUCATION	Primary	14	3	3	0	0	0.531	1.000 P > 0.05	NS
	Secondary	2	0	0	0	0			
	Graduate	0	0	0	0	0			
	No formal education	8	0	0	0	0			
INCOME	< 2000	7	2	0	0	0	0.642	1.000 P > 0.05	NS
	2001 - 4000	9	2	3	0	0			
	4001 - 6000	7	0	0	0	0			
	> 6001	0	0	0	0	0			
RELIGION	Hindu	25	3	2	0	0	1.000	0.317 P > 0.05	NS
	Muslim	0	0	0	0	0			
	Christian	0	0	0	0	0			
	Others	0	0	0	0	0			
PREVIOUS EXPOSURE	Frequently	4	0	1	0	0	0.521	1.000 P > 0.05	NS
	Occasionally	6	2	0	0	0			
	Rarely	14	3	0	0	0			

(*P<0.05 significant, ** p<0.01 significant, ***p<0.001 significant)

Table.12. shows that, in control group no significant association had been found out between the demographic variables of children and the level of anxiety among hospitalized children belong to post test. There is no association between the level of anxiety among hospitalized children and other demographic variables in control group.

CHAPTER V

DISCUSSION

This study was conducted to evaluate the effectiveness of play material in terms of reducing anxiety among hospitalized children. The common reactions of childhood hospitalization are depression, regression, and mainly the anxiety due to separation from the home and exposure to new environment such as hospital, injection, blood and health personnel (Doctors, Nurses) etc.

The purpose of this study was to minimize and reduce the anxiety for hospitalized children where they separated from home and exposure of new environment etc.

The review of literature and hospital statistics revealed that, Hospitalization is a common cause of separation in children. It provokes complete psychological process, often evoking an active fantasy in the young child of being abandoned by parents and the preoccupation of parents in the well-being of their child leads to developmental crisis.

Common reactions to hospitalized children include regression, separation anxiety, apathy, fear, and sleep disturbances, especially for children younger than 12 years of age. In this study the participating children were the age group from 9-12 yrs.

The aim of the study was to assess the effectiveness of play material to reduce the anxiety level of hospitalized children (9-12 yrs) in pediatric medical ward. The sample size for this study was 60 (experimental group-30, control group-30). Pre-test was conducted to assess the level of anxiety in the first day of admission and play material (video game) was given for 30 minutes for one session at morning in a day for five consecutive days. On seventh day post-test was conducted to assess the anxiety status.

The statistical analysis was done based on objectives of the study by using descriptive and inferential statistical methods. The findings of the study have been

discussed in this chapter with reference to the objectives and hypothesis stated in introduction and in relation with the findings of other studies.

The details of demographic characteristics of 60 children who participated in this study were as follows.

In considering the age in control group, 36.67% of children were belongs to 9 years of age, 30% were in 10 years, 26.67% of were in 12 years of age, and remaining 6.67% of children were in 11 years of age. Most of the children were from the age group of 9 yrs.

Age wise distribution in experimental group, 33.33% of children were in 11 years of age , 30% were in 10 years, 30% were in 12 years, and remaining 6.67% of children were in 9 years of age. Most of the children were from the age group of 11 yrs.

Regarding sex wise distribution in control group, majority 66.67% of children were male and 33.33% of female children. In experimental group, 60% of children were male and 40% of children were female children. Most of the children are male in both groups.

Based on birth order wise distribution in control group, 50% of children were in first child, 23.33% were in second child and 26.67% were in third and above child. Most of the children are first child. In experimental group, 40% were in second child, 36.67% were in first child and 23.33% were in third and above child. Majority of the child were second birth order.

Regarding residence wise distribution in control group, 56.67% of children were from rural areas and 43.33% of children were from urban areas. Most of the children were from the rural areas. In experimental group, 66.67% of children were from rural areas and 33.33% of children were from urban areas. Most of the children were from the rural areas.

With the view of the type of family wise distribution in control group, 80% of children were from nuclear family and 20% of children were from joint family. In experimental group, 93.33% of children were from nuclear family and 6.67% of children

were from joint family. Majority of the children (93.33% and 80%) were from nuclear family in experimental and control group respectively.

Regarding the standard of studying wise distribution in control group, 53.33% were studying 5 std, 23.33% were studying 4 std, 16.67% were studying 7 std and remaining 6.67% were studying 6 std. Most of the children were studying 5 std. In experimental group, 33.33% were studying 6 std, 30% were studying 7 std, 23.33% were studying 4 std and 13.33% were studying 5 std. Most of the children were studying 6 std.

Considering parent's education wise distribution in control group, 66.67% of parents were having primary education, 26.67% of parents were having no formal education and only 6.67% of parents were have secondary education and none of them were of graduates. In experimental group, 46.67% of parents were having primary education, 46.67% of parents were having no formal education and only 6.67% of parents were have secondary education and none of them were of graduates. Most of the parents were in primary school education in both groups.

Regarding income in control group, 46.67% of children were from 2001-4000, 30% of children were from <2000 and 23.33% of children were from 4001- 6000. In experimental group, 80% of children were <2000, 6.67% of children were 2001-4000, 6.67% of children were >6001 and 6.67% were 4001-6000.

Almost 100 % were belongs to Hindu in both experimental and control group.

In previous exposure to hospital in control group, 56.67% of children have visited hospital rarely, 26.67% have visited occasionally and 16.67% were frequently visited . In experimental group, 70% of children have visited hospital rarely, 20% have visited occasionally and 10% were frequently visited. Most of the children rarely visited the hospital in both groups.

The first objective of this study was to assess the level of anxiety among hospitalized children (9-12yrs).

Tania Bekhuis (2005) He conducted a study on Play Therapy may reduce pain and anxiety in Children Undergoing Medical and Dental Procedures. In this study he

selected 513 patients, primarily children and a few young adults who underwent medical and dental procedures associated with pain and anxiety. Age ranged from 9-12yrs. The intervention was active or passive play therapy through head phones or without phone. The primary outcomes, pain and anxiety, were assessed with a variety of self-reported and observational measures. Some measures were reported as being reliable and valid. Finally he found through descriptive and inferential statistical analysis which is the Play Therapy significantly reduces anxiety (standardized mean difference [SMD] = -0.35; 95% confidence interval [CI] -0.55 to -0.14). Based on a synthesis of 5 RCTs (284 children), MT reduces anxiety (SMD = -0.39; 95% CI -0.76 to -0.03).

The mean and S.D value of pre-test anxiety level in experimental group Mean=17.86, S.D = 5.11 and also it shows that the highest pre test mean level is 4.4. Through this the researcher observed that the higher level of anxiety in pre-test belongs to the area of separation. The same wise the lower level of anxiety in pre-test belongs to the area of others.

The mean and S.D value of pre-test anxiety level in control group Mean=13.8, S.D = 4.97 and also it shows that the highest pre test mean level is 3.63. Through this the researcher observed that the higher level of anxiety in pre-test belongs to the area of separation. The same wise the lower level of anxiety in pre-test belongs to the area of acute physical signs and symptoms.

The mean and S.D value of post-test anxiety level in experimental group Mean=3.6 and S.D = 1.16 so, comparing to pre-test mean and S.D value, the post -test mean and S.D value is decreased. Through this inferential statistical finding researcher concluded that the play intervention will give the significant reduction of anxiety among hospitalized children. Also the post-test anxiety level in the area of separation is highly reduction of anxiety was observed from the evidence of S.D variance from 4.44 to 1.26.

The mean and S.D value of post-test anxiety level in control group Mean=6.333 and S.D = 2.294 so, comparing to pre-test mean and S.D value, the post -test mean and S.D value is slightly decreased. Through this inferential statistical finding researcher concluded slight reduction of anxiety among hospitalized children occurs in control

group. Also the post-test anxiety level in the area of separation are highly reduction of anxiety was observed from the evidence of mean value from 3.63 to 1.8.

The second objective is to evaluate the effectiveness of play material in terms of reducing anxiety among hospitalized children (9-12yrs).

Maura barreraa (2006) et al he conducted a study on the effects of interactive play therapy on hospitalized children with cancer. He selected the 60 children from the oncology Dept. All the pre and post test of anxiety level were analyzed through descriptive and inferential statistics. Finally he found that, there was a significant main effect of time. $F = (1, 59)=8.11, p<0.01$, suggesting a significant improvement in children's anxiety from pre- to post-play therapy. The means at pre- and post-therapy were 2.55 (S.D. =0.61) and 2.76 (S.D. =0.35), respectively. There was also a significant main effect of engagement, indicating that the active children had higher scores than the passive children n, $F=(1,57)=8.02, p<0.01$. The means were 2.77 (S.D.=0.39) for active and 2.29 (S.D=0.61) for passive. No other significant findings were obtained in this analysis.

Item wise analysis of correct response (Yes) and incorrect response(No) regarding the area of “performance situation” in this section experimental post-test incorrect responses are lower than the pre-test incorrect response. So, after getting play intervention the significance reduction of anxiety in the area of “performance situation” and also it shows specifically that the 8th item (Refuses to use a bathroom). In this particular activity 80% of children were incorrect responses in pre-test than after the play therapy the particular this activity is decreased incorrect responses to 40%. So, significant reduction of anxiety level were observed.

Item wise analysis of correct response (Yes) and incorrect response(No) regarding the area of “performance situation” in this section control group post-test incorrect responses are lower than the pre-test incorrect response. So, after getting play therapy the significance reduction of anxiety in the area of “performance situation” and also it shows specifically that the 8th item (Refuses to use a bathroom). In this particular activity 63% of children were incorrect responses in pre-test than post test incorrect

responses were slightly decreased to 43%. So, significant slight reduction of anxiety level were observed.

Item wise analysis of correct response and incorrect response regarding the area of “Generalized” in this section experimental post-test incorrect responses are lower than the pre-test incorrect response. So, after getting play intervention the significance reduction of anxiety in the area of “Generalized” among hospitalized children (9-12yrs) and also it shows specifically that the 1st item (Excessive worry about everyday or real life problems). In this particular activity 90% of children were incorrect responses in pre-test than after the play therapy the particular this activity is reduced to 7%.

Item wise analysis of correct response and incorrect response regarding the area of “Generalized” in this section control group post-test incorrect responses are lower than the pre-test incorrect response. So, after post test the significance reduction of anxiety in the area of “Generalized” among hospitalized children (9-12yrs) and also it shows specifically that the 5th item (Irritability). In this particular activity 63% of children were incorrect responses in pre-test than post test the particular this activity is slightly reduced to 30%.

Item wise analysis of correct response and incorrect response regarding the area of “**specific phobia**” in this section experimental group pre-test incorrect responses are higher than the post-test incorrect response. So, after getting play intervention the significance reduction of anxiety in the area of “**specific phobia**” among hospitalized children (9-12yrs) and also it shows specifically that the third item (Blood - Injection - injury : specify). In this particular activity 100% of children were incorrect responses in pre-test than after the play therapy the particular this activity is reduced to 20%.

Item wise analysis of correct response and incorrect response regarding the area of “**acute physical signs and symptoms**” in this section experimental group pre-test incorrect responses are higher than the post-test incorrect response. So, after getting play intervention the significance reduction of anxiety in the area of “**acute physical signs and symptoms**” among hospitalized children (9-12yrs) and also it shows specifically that the 4th item (Feels dizzy, unsteady, lightheaded or going to pass out). In this

particular activity 63% of children were incorrect responses in pre-test than after the play therapy the particular this activity is reduced to 0%.

Item wise analysis of correct response and incorrect response regarding the area of “**others**” in this section experimental group pre-test incorrect responses are higher than the post-test incorrect response. So, after getting play intervention the significance reduction of anxiety in the area of “**others**” among hospitalized children (9-12yrs)) and also it shows specifically that the 6th item (Derealization (feeling of unreality). In this particular activity 73% of children were incorrect responses in pre-test than after the play therapy the particular this activity is reduced to 0%. Significant reduction of anxiety level was observed.

Paired ‘t’- test for experimental group pre and post test of play intervention. The “t” value of overall areas are 13.83, $df=29$ and the table value is 1.699. The calculated ‘t’ value (13.83) was much higher than the table value at 0.05 level of significance. So the researcher observed that there is a **highly significant reduction of anxiety** after getting play intervention among hospitalized children and also it shows specifically that the particular area (Performance Situation). In this area the ‘t’ value is 4.571. So, it shows in this particular areas had the highly reduction of anxiety in post-test. Hence, by it is a true difference Not by the chance.

The third objective is associate selected demographic variables with anxiety level in hospitalized children.

In experimental group no significant association had been found out between the demographic variables of children and the level of anxiety among hospitalized children belong to post test. There is no association between the level of anxiety among hospitalized children and other demographic variables in experimental group.

In control group no significant association had been found out between the demographic variables of children and the level of anxiety among hospitalized children belong to post test. There is no association between the level of anxiety among hospitalized children and other demographic variables in control group.

CHAPTER – VI

SUMMARY, CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

This chapter deals with the summary of the study and conclusions drawn. It also clarifies the limitations of the study, the implications for different areas like nursing educations, administration, nursing practice, nursing research and recommendations.

SUMMARY

The present study was conducted to evaluate the effectiveness of play material among hospitalized children (9-12yrs) in pediatric medical ward.

The objectives of the study were,

1. To assess the level of anxiety among hospitalized children(9-12yrs)
2. To evaluate the effectiveness of play therapy in terms of reducing anxiety among hospitalized children (9-12yrs).
3. To associate selected demographic variables with anxiety level in hospitalized children.

The study assumptions were,

1. Children who are hospitalized to undergo diagnostic procedures and treatment are susceptible to develop anxiety.
2. Children were explicit the reactions of hospitalizations are separation anxiety, depression, regression, exposure to new environment such as doctors, injections etc.

The following hypotheses were tested.

- **H₁** -There is a significant reduction level of anxiety in children who are admitted in medical ward before and after providing play material in the experimental group.

- **H₂**. There is a significant association between post-test scores of experimental group and selected demographic variables

The conceptual framework for the study was based on Imogene King's open system model. A true-experimental research design was used in this study. The independent variable was Play material and dependent variables were level of Anxiety. This study was conducted at the pediatric medical ward of Government Rajaji Hospital, Madurai – 625020. The target population of the study was children who were supposed to be hospitalized for 7 days in pediatric medical ward at Government Rajaji Hospital, Madurai-20.

The study subjects were selected using simple random sampling and were assigned to two groups (experimental group-30, control group-30). The data collection tools used were,

1. Demographic Data.
2. Modified standardized Pediatric Anxiety Rating Scale – 50 items.

The reliability of modified anxiety rating scale was found to be high ($r= 0.7273$, $p=0.0001$) and reliable with Test and re-test method.

Content validity was obtained from three experts specialized in child Health Nursing and two experts in pediatric department. Pilot study was conducted on 10 subjects to find out the feasibility of the study and it did not show any major flaw in the design of the study.

Data collection was carried out for six weeks. Based on the objectives and hypotheses, the data collected were analyzed by using descriptive and inferential statistics.

6.1 MAJOR FINDINGS OF THE STUDY

- 33.33% of children belonged to the age group of 11 yrs and the majority of the children (60%) were male in experimental group.
- 33.33% of the children belonged to the 6th standard of studying and most of the children (66.67%) were from the rural areas in experimental group.

- The majority of the children (70%) have visited hospital rarely and 93.33% of the children from nuclear family in experimental group.
- The overall mean and S.D value in experimental group pre-test is 17.86, 5.11 and the highest level of mean value is 4.44. It's belonged to the area of separation.
- The overall mean and S.D value in experimental group post-test is 3.66, 1.16 and the highest level of mean value is 4.44 is reduced in to 1.26 this reduction was statistically highly significant with paired 't' test ($t = 3.164$ and $p < 0.001$).
- In item wise analysis , regarding the area of "performance situation" also it shows specifically that the 8th item (Refuses to use a bathroom). In this particular activity 80% of children were incorrect responses in pre-test than after the play therapy the particular this activity is decreased incorrect responses to 40%. So, significant reduction of anxiety level were observed.
- In item wise analysis , regarding the area of "specific phobia" shows specifically that the third item (Blood - Injection - injury : specify). In this particular activity 100% of children were incorrect responses in pre-test than after the play therapy the particular this activity is reduced to 20%.
- In paired 't'- test for experimental group pre and post test of play intervention. The "t" value of overall areas are 13.83, $df=29$ and the table value is 1.699. The calculated 't' value (13.83) was much higher than the table value at 0.05 level of significance. So the researcher observed that there is a **highly significant reduction of anxiety** after getting play intervention among hospitalized children and also it shows specifically that the particular area (Performance Situation). In this area the 't' value is 4.571. So, it shows in this particular areas had the highly reduction of anxiety in post-test. Hence, by it is a true difference Not by the chance.
- In experimental group pretest no significant association had been found out between the demographic variables of children and the level of anxiety among hospitalized children belong to post test. There is no association between the level of anxiety among hospitalized children and other demographic variables in experimental group.

- In control group post-test no significant association had been found out between the demographic variables of children and the level of anxiety among hospitalized children belong to post test. There is no association between the level of anxiety among hospitalized children and other demographic variables in control group.

6.2 IMPLICATIONS

The investigator had drawn implications from this study for various areas such nursing practice, nursing education, nursing administration and nursing research.

Implications for Nursing Practice

1. The nurses must be taught to assess the anxiety level of children who are hospitalized for diagnosis, treatment and other surgical procedures.
2. The nurses must provide non-pharmacological, cost effective approaches to improve children comfort and free from anxiety.
3. In the clinical area, provision of play materials to hospitalized children acutely as well as chronically and the findings of this study clearly enlighten its effectiveness in reducing the anxiety level.
4. Nursing personnel can incorporate the provision of play material as a routine session of the particular time in pediatric medical ward among hospitalized children helps to reduce the reactions of hospitalization like separation anxiety, depression, regression, stress as well as specific phobias.
5. The nurses should educate the parents about the benefits of play therapy and encourage the children to practice it.

Implications for Nursing Education

Educate the nurses about all the reactions of hospitalized children and how it will aggravate the disease conditions and deprivation of particular children growth and development.

The concepts of Play therapy and other Complementary and Alternative Therapies should be included in the nursing curriculum of Undergraduate and Postgraduate programme.

A well organized Continuing Nursing Education programme may be conducted on Complementary Alternative Therapies which include Play therapy for all pediatric nursing personnel.

Implications for Nursing Administration

1. Diversional therapy team(play therapist) can be formed in pediatric department to assist the stressors of hospitalization of the children by implementing interventions (play therapy). It maintains and restores a sense of comfort and free from anxiety.
2. The nurse administrators can motivate, supervise and guide the nurses in the assessment of children's anxiety and other stressors of hospitalization.
3. The nurse administrators can recommend for installing play system in the pediatric wards and out-patient department area. So that observing the play of children can be made as a part of daily routine.
4. The nurse administrators can also encourage the nurses to follow other safe, cost effective intervention.

Implications for nursing research

1. The nurse researcher should motivate the clinical nurses to apply research findings and can bring out new innovative procedures to reduce the childhood reactions of hospitalization such as anxiety, depression and regression.
2. The nurse researcher should encourage clinical nurse to conduct further research studies on the play therapy on other aspects of hospitalized children such as post operative wards, oncology department and other pediatric departments.
3. This study can be used as a baseline study for further studies.

6.3 LIMITATIONS

The limitations of the study were,

1. The participants (children and parents) were aware of the intervention which may have affected the results.
2. The children's preference for play was not evaluated and only one type of play was offered to all study participants.
3. As the sample size of this study was 60 (experimental group-30, control group-30). So, caution must be taken in generalization of its findings.

6.4 RECOMMENDATIONS

1. The study can be repeated with a large sample size for better generalization.
2. The study can be replicated with various areas of pediatric department such as oncology, post-operative and other invasive procedures.
3. A comparative study can be done between play therapy and other diversional therapies to evaluate the effectiveness in reducing anxiety while hospitalization..
4. A study can be conducted to assess the current knowledge, skill and attitude of nursing staffs on diversional therapies for the management of anxiety and other stressors of hospitalization among children.
5. The effect of play therapy can be assessed in combination with other diversional therapies in terms of reducing anxiety among hospitalized children.
6. The study can be conducted to different age group of children like infant, Toddler and pre-school and which diversional therapy is more effective of particular age group.

6.5 CONCLUSION

According to the results of this study, children who provided 30 minutes of play (video game) had a statistically significant reduction in the anxiety level in experimental group than the control group among hospitalized children (9-12yrs) in pediatric medical ward. So, play intervention was cost effective, non invasive, free from side effects and highly feasible. The researcher concluded that it can be used as an effective intervention to reduce the reactions towards hospitalization of children mainly the anxiety.`

BIBLIOGRAPHY

BOOKS

1. Axline V1947. *Play Therapy*. New York: Ballantine Books;
2. AxlineV(1969). *Play Therapy: The inner Dynamics of Childhood*. Boston: Houghton Mifflin,;
3. Basavanthappa, B.T. (1998). *Nursing research* (3rded.). New Delhi: Jaypee Brothers.
4. Brunner and Suddarth. (1992).*Textbook of Medical Surgical Nursing*. (7thed). Philadelphia: Lippincott company.
5. Dorothy R. Marlow.,& Barbara C. Redding. (1998). *Textbook of pediatric Nursing*, (6thed.). Philadelphia: Saunders.
6. Fawcett Jacqueline. (1989). *Analysis and evaluation of conceptual Model of Nursing*. Philadelphia: F.A. Davis.
7. Geri Lobiondo- Wood.,& Judith Haber. (2006). *Nursing Research*. (6thed.). St. Louis: Mosby Publications.
8. Ghai, O.P. (2004). *Essential pediatrics*. (6thed.). New Delhi: CBS publisher.
9. Gupta, S.P. (1991). *Statistical Methods*. (3rded.). New Delhi: Sultan Chand.
10. Hockenberry.,Wilson. Winkelstien., Klive.,(2006). *Wong's Nursing Care of Infants and Children*. (7thed.). Newdelhi: Elsevier publishers.
11. Ginott H. Group Psychotherapy with Children(1994).: *The Theory and Practice of Play Therapy*. Northvale, NJ: Aronson;
12. Kleigman., Behrman., Jenson., Stenton., (1999). *Nelson's Text Book of Pediatrics*. (Volume 2). Newdelhi: Elsevier publishers.
13. Kothari, C.R. (1988). *Research Methodology Methods and Techniques*. New Delhi: Whiey Eastern Ltd.

14. Moustakas C (1953). *Children and Play Therapy: A Key to Understanding Normal and Disturbed Emotions*. New York: McGraw-Hill;
15. Parthasarathy, A. Menon., Nair.M,K,C.,(2002). *IAP Text Book of Pediatrics*. (2nd ed.). Newdelhi: Jaypee publishers.
16. ParulDatta. (2009). *Paediatric Nursing*. (2nded.). New Delhi: Jaypee publications.
17. Polit., Beck., & Hungler, P. (2001). *Essentials of Nursing Research*. (4thed.). Philadelphia: Lippincott Raven Publishers.
18. Rose Marie Linda. (2008). *Foundations of Nursing Research*. (5th ed.). New Delhi: Pearson Prentice Hall.
19. Schaefer CE(1993). *The Therapeutic Power of Play*. Northvale, New Jersey: Jason Aronson, Inc..
20. Sodashy., and Yalfe, B.J. (1993). *Nursing theory analysis application and evaluation*, (2nded.). Boston: Little Brown.
21. SurajGupte. (2009). *Text book of Paediatrics*. (11thed.). New Delhi: Jaypee publications.
22. Viswanathan .J. Desai. (2006). *Achar's Text book of Paediatrics*. (3rded.). New Delhi: Orient Longman Publications.

JOURNALS

1. Alexander, C.M. (1989). Principles of pediatric hospitalization. *Journal of pediatrics*, 8(2), 159-162.
2. Adams, M. (1976). A hospital play program: Helping children with serious illness. *American Journal of Orthopsychiatry*, 46, 416-424.
3. Arozullah , K. (2002). Childhood hospitalization, *Journal of pediatric medicine*, 137(7), 620.
4. Axline, V. (1969). *Play therapy*. New York: Ballantine. Bombeck, E. (1989). / *want to grow hair, I want to grow up, and I want to go to Boise: Children surviving cancer*. New York: Harper Collins.
5. Barr, P., Noble, J., & Biddle, R. (2007). *Video game values: Human-computer interaction and games. Interacting with Computers*, 19, 180-195.
6. BixlerRH(1949). *Limits are therapy*. *TJ Consult Psychol.* ;13(1):1–11.
7. Brooks, K. and Brunn, J.A. (2006), Psychological responses to hospitalization. *Journal of Annual Internal Medicine*, 144(8):596-608.
8. Buckingham, R. (1989). *Care of the dying child*. New York: Continuum. Chan, J., &Leff, P. (1988). Play and the abused child: Implications for acute pediatric care. *Child Health Care*, 16(3), 169-176.
9. Crankson, S.J., et al. (2001). Pediatric hospitalization. *Saudi Medical Journal*, 22(2): 117-220.
10. Clatworthy, S. (1981). Therapeutic play: Effects on hospitalized children. *Journal of the Association for the Care of Children in Hospitals*, 9(4), 108-113.
11. Cooper, S., & Blitz, J. (1985). A therapeutic play group for hospitalized children with cancer. *Journal of Psychosocial Oncology*, 3(2), 23-37.
12. D'Antonio, I. (1984). Therapeutic use of play in hospitals. *Nursing Clinics of North America*, 19, 351-359.
13. Doak, S., & Wallace, N. (1975). The doctors wear pajamas. *Journal of the Association for the Care of Children in Hospitals*, 3(3), 47-53.
14. Erik, H.J., et al. *(2006). Childhood hospitalization. *The journal of the American Medical Association*, 18(296):15.

15. Guerney L (1983). *Client-centered (nondirective) play therapy*. In: Schaefer CE, O'Connor K, editors. *Handbook of Play Therapy*. New York: Wiley;. pp. 21–64
16. Gerald W. Smetana. (1999). Hospitalized children. *The England Journal of Pediatric Medicine*, 340:937-944.
17. Hyde, N. (1971). Play therapy: The troubled child's self-encounter *American Journal of Nursing*, 71, 1366-1370.
18. Knapp, R. (1986). *Beyond endurance: When a child dies*. New York:
19. Legoff DB, Sherman M (2006). *Long term outcome of social skills intervention based on Lego interactive play*. *Autism*. ;10(4):317–329.
20. Landreth Garry L (2002). *Therapeutic Limit setting in the Play Therapy Relationship*. *Prof Psychol Res Pr*.;33(6):529–535.
21. Mulherin M (2001). *The Masterson Approach with play therapy: a parallel process between mother and child*. *Am J Psychother*. ;55(2):251–272.
22. O'Conner K (2002). *The value and use of interpretation in play therapy*. *Prof Psychol Res Pr*.;33(6):523–528.
23. Tomich G.M., et al. (2007). Stressors of hospitalized children. *Brazilian Journal of Medicine and Psychological Research*, 40: 1409-1417.

WEBSITES

1. www.onlinelibrary.wiley.com
2. www.ncbi.nlm.nih.gov/pubmed.com
3. www.google.com
4. www.indianpediatrics.net
5. www.livestrong.com
6. www.medscape.org
7. www.nepjol.info
8. www.sciencedirect.com
9. www.ncbi.nlm.nih.gov/pmc
10. www.psycnet.apa.org
11. www.online.lieberpub.com
12. www.theglobaljournals.com

APPENDICES

TOOL -1 DEMOGRAPHIC DATA

1. Age of the child in yrs
 - a. 9 yrs
 - b. 10 yrs
 - c. 11 yrs
 - d. 12 yrs
2. Sex of the child
 - a. Male
 - b. Female
3. Birth order of the child
 - a. First above
 - b. Second
 - c. Third and above
4. Place of residence
 - a. Rural
 - b. Urban
 - c. Semi-urban
5. Type of family
 - a. Joint family
 - b. Nuclear
 - c. Separated
6. Standard of studying
 - a. 4thStd
 - b. 5thStd
 - c. 6th Std
 - d. 7th Std
7. Parent's education
 - a. Primary education
 - b. Secondary education
 - c. Graduate
 - d. Illiterate
8. Income of the family
 - a. Less than Rs.2000
 - b. Rs.2001-4000
 - c. Rs.4001-6000
 - d. Rs.6001 and above
9. Religion
 - a. Hindu
 - b. Muslim
 - c. Christian
 - d. Others
10. Previous exposure to the hospital
 - a. Frequently
 - b. Occasionally
 - c. Rarely

**SECTION-B MODIFIED STANDARDIZED PEDIATRIC ANXIETY RATING
SCALE**

Instructions: Fill in the blanks with “1” (yes), “0” (no),

SOCIAL INTERACTIONS or PERFORMANCE SITUATIONS YES NO

1. Has fear of and/or avoids participating in group activities.
2. Has fear of and/or avoids going to any events.
3. Has fear of and/or avoids talking with a stranger.
4. Has fear of and/or avoids talking on the phone.
5. Reluctant or refuses to talk in front of a group.
6. Reluctant or refuses to write in front of other people.
7. Reluctant or refuses to eat in others.
8. Reluctant or refuses to use a bathroom.
9. Reluctant or refuses to change into clothes with others present

SEPARATION

10. Worry about harm happening to attachment figures.
11. Worry about harm befalling self, including the fear of dying.
12. Distress when separation occurs or is anticipated.
13. Fear or reluctance to be alone.
14. Reluctance or refusal to go to school or elsewhere.
15. Complaints of physical symptoms when separation occurs or is anticipated
16. Reluctance or refusal to go to sleep alone.
17. Reluctance or refusal to sleep away from home.
18. Nightmares with a separation theme.
19. Clings to parent, or follows parent around the ward

GENERALIZED

20. Excessive worry about everyday or real-life problems.
21. Restlessness or feeling keyed-up or on edge.
22. Easily fatigued.

- 23. Difficulty concentrating or mind going blank.
- 24. Irritability.
- 25. Muscle tension or nonspecific tension.
- 26. Sleep disturbance, especially difficulty falling asleep.
- 27. Dread or fearful anticipation (nonspecific).

SPECIFIC PHOBIA

- 28. Health personnel Specify _____
(e.g., Doctors, Nurses ets)
- 29. Hospital environment:
(e.g ward, injection room) Specify: _____
- 30. Blood-injection-injury: Specify: _____
- 31. Situational
(e.g., During procedures, Doctor rounds): Specify: _____

ACUTE PHYSICAL SIGNS & SYMPTOMS

- 32. Blushing.
- 33. Feels paralyzed.
- 34. Trembling or shaking.
- 35. Feels dizzy, unsteady, lightheaded or going to pass out.
- 36. Palpitations or pounding heart.
- 37. Difficult breathing.(sensation of shortness of breath, smothering or choking).
- 38. Chills or hot flashes.
- 39. Sweating.
- 40. Feels sick to stomach, nausea or abdominal distress.
- 41. Recurrent urge to go to bathroom.
- 42.Chest pain or discomfort.
- 43. Paresthesias (numbness or tingling sensation in fingers, toes, or perioral region).
- 44. Problems swallowing or eating.

OTHERS

- 45. Crying spells when in anxiety-provoking situations.

46. Temper tantrums when in anxiety-provoking situations.
47. Needs to flee certain anxiety-provoking situations.
48. Keeps distance from other people.
49. Fear of losing control or going crazy.
50. Derealization (feeling of unreality)
or depersonalization (detached from oneself).

Modified Standardized Pediatric Anxiety Rating Scale was used in this study. It consists of 50 questions. In each question, YES carrying “1” Mark and NO carrying “0” mark.

- Normal : 0
- Borderline Anxiety : 1 - 10
- Mild Anxiety : 11 – 20
- Moderate Anxiety : 21 - 30
- Severe Anxiety : 32-40
- Very severe Anxiety : 41-50

பிரிவு-1

தன்சுயவிவரகுறிப்பு

1. குழந்தையின் வயது
அ. 9 வயது
ஆ. 10 வயது
இ. 11 வயது
ஈ. 12 வயது
2. குழந்தையின் பாலினம்
அ. ஆண்
ஆ. பெண்
3. குடும்பத்தில் குழந்தையின் பிறப்பு வரிசை
அ. முதலாவது
ஆ. இரண்டாவது
இ. மூன்று மற்றும் அதற்கு மேல்
4. குழந்தையின் இருப்பிடம்
அ. கிராமம்
ஆ. நகர்ப்புறம்
இ. புறநகர்
5. குடும்பத்தின் வகை
அ. கூட்டுக்குடும்பம்
ஆ. தனிக்குடும்பம்
இ. பிரிந்த குடும்பம்
6. குழந்தையின் கல்விநிலை
அ. 4-ம் வகுப்பு
ஆ. 5-ம் வகுப்பு
இ. 6-ம் வகுப்பு
ஈ. 7-ம் வகுப்பு
7. பெற்றோர்களின் கல்விநிலை
அ. ஆரம்பக்கல்வி
ஆ. உயர்நிலைக்கல்வி
இ. பட்டப்படிப்பு
ஈ. கல்வியறிவற்ற நிலை
8. குடும்ப வருமானம்
அ. ரூ.2000-ற்குள்
ஆ. ரூ.2001-4000
இ. ரூ. 4001-6000
ஈ. ரூ.6001 மற்றும் அதற்கு மேல்
9. மதம்
அ. இந்து
ஆ. முஸ்லிம்
இ. கிறித்தவர்
ஈ. மற்றவர்கள்
10. மருத்துவமனைக்கு வருகைபுரியும் தடவை
அ. அடிக்கடி
ஆ. ஓரிருமுறை
இ. எப்பொழுதாவது

மாற்றியமைக்கப்பட்ட குழந்தைகளின் பதற்றம் பற்றியமதிப்பீட்டு அளவுகோல்

வ. எண்	குழந்தையின் பண்புகள்	ஆம்	இல்லை
	குழந்தைசெயல்பாடுகள்		
1	குழு நடவடிக்கைகளைதவிர்ப்பதுஅல்லதுஅச்சம் கொள்வது		
2	எந்தநிகழ்ச்சிகளிலும் கலந்துகொள்வதைதவிர்ப்பதுஅல்லதுஅச்சம் கொள்வது		
3	அந்நியருடன் பேசுவதைதவிர்ப்பதுஅல்லதுஅச்சம் கொள்வது		
4	தொலைபேசியில் பேசுவதைதவிர்ப்பதுஅல்லதுஅச்சம் கொள்வது		
5	ஒருகுழுவின் முன் பேசுதயக்கம் அல்லதுமறுப்பது		
6	மற்றவர்கள் முன் சாப்பிடதயக்கம் அல்லதுமறுப்பது		
7	மற்றமக்கள் முன் எழுததயக்கம் அல்லதுமறுப்பது		
8	கழிப்பறையையன்படுத்ததயக்கம் அல்லதுமறுப்பது		
9	மற்றவர்கள் முன் உடைமாற்றதயக்கம் அல்லதுமறுப்பது		
	பிரிவடைதல்		
10	நெருக்கமானவர்களால் தீங்குஏற்படுமோஎன்றகவலை		
11	ஏதாவதுதீங்குஏற்படுமோ, இறந்துவிடுவோமோஎன்றகவலை		
12	உடன் இருப்பவர்களைவிட்டுப் பிரியும்போதுஆழ்ந்ததுயரத்தில் ஆழ்வது		
13	தனியாக இருக்கபயம் அல்லதுதயக்கம்		

14	வேறுஎந்த இடத்துக்கும் செல்லதயக்கம் அல்லதுமறுப்பது		
15	பிரிவுஏற்படும்போதுஉடல் நிலையில் மாற்றங்கள் ஏற்படுவது		
16	தனியாக தூங்கசெல்லதயக்கம் அல்லதுமறுப்பது		
17	இருப்பிடத்தைதவிரவேறெங்கும் தூங்கதயக்கம் அல்லதுமறுப்பது		
18	உடன் இருப்பவர்கள் பிரிந்துசெல்வதுபோன்றகெட்டகனவுகள் ஏற்படுவது		
19	எப்பொழுதும் பெற்றோருடன் ஒட்டிக்கொண்டிருப்பது		
	பொதுவானவைகள்		
20	தினமும் தன்நிலைமைபற்றிகவலைகொள்வது		
21	எப்பொழுதும் அமைதியின்மைஏற்படுவதுபோன்றஉணர்வு ஏற்படுவது		
22	எளிதில் களைப்படைந்துவிடுதல்		
23	எதிலும் லயிக்காமல் கவனம் செலுத்தாமல் இருத்தல்		
24	எரிச்சல் ஏற்படுதல்		
25	தசை இறுக்கம் அல்லதுசொல்லொனாத் துயரம் ஏற்படுதல்		
26	தூங்குவதில் தொந்தரவு,குறிப்பாகஉறக்கம் கொள்வதில் சிரமம்		
27	எப்பொழுதும் பயத்துடன் இருப்பது (குறிப்பிடப்படாதது)		
	குறிப்பிட்டகாரணம் இல்லாபயம்		
28	சுகாதாரதுறையில் உள்ளவர்கள்- குறிப்பிடவும்----- (எ.கா. மருத்துவர்கள்,செவிலியர்கள் மற்றும் சுகாதாரஊழியர்கள்)		

29	மருத்துவமனையின் சூழல்கள் (எ.கா. வார்டு, ஊசி அறை- குறிப்பிடவும்)--- -----		
30	இரத்தத்தை பார்த்தல், ஊசி போடுதல், காயம் ஏற்படுதல் - குறிப்பிடவும் ----- -----		
31	சூழ்நிலைகள் (எ.கா. செய்முறையின் போது, மருத்துவர்களின் பார்வை நேரத்தின்போது - குறிப்பிடவும்) -----		
	கடுமையான உடலியல் மாறுபாடுகள் மற்றும் அறிகுறிகள்		
32	முகஞ்சிவந்து காணப்படுதல்		
33	உடல் சதை உணர்வற்ற நிலை		
34	உடல் உதறல் ஏற்படுவது		
35	கிருகிருப்பான நிலை, தள்ளாடுதல்		
36	படபடப்புகள் அல்லது படுவேகமான இதயத்துடிப்பு		
37	கடினமான மூச்சு (மூச்சுத்திணறல் போன்ற உணர்வு, மூச்சடைப்பு)		
38	உடல் சூடாதல் அல்லது சில்லிட்டுப்போதல்		
39	வியர்த்துக்கொட்டுதல்		
40	குமட்டல், வயிற்று உப்புசம் மற்றும் வயிற்று உபாதைகள் ஏற்படுவது போன்ற உணர்வு		
41	அடிக்கடி கழிப்பறை செல்லத் தூண்டும் உணர்வு		

42	நெஞ்சுவலிபோன்றசிரமம் ஏற்படுவதுமானஉணர்வு		
43	குறிப்பிட்டபாகங்களின் உணர்வற்றநிலை (விரல்கள்,கால் விரல்கள் பகுதியில் கூச்சஉணர்வு)		
44	உணவுஉட்கொள்வதிலும் விழுங்குவதிலும் சிரமம்		
	மற்றவைகள்		
45	பதற்றமான சூழ்நிலைகளில் மயக்கநிலை,அழுகைஏற்படுதல்		
46	பதற்றமான சூழ்நிலைகளில் அடம்பிடிப்பது		
47	பதற்றமான சூழ்நிலைகளில் ஓடிப்போதல்		
48	மற்றவர்களிடமிருந்துஒதுங்கியே இருத்தல்		
49	கட்டுப்பாட்டை இழந்துவிடுதல் அல்லதுமனஅழுத்தம் ஏற்படுதல்		
50	ஏதோபுதிதாகவர் இடத்திற்குவந்ததுபோன்றஉணர்வுஅல்லதுபுதிதாகஒருவரைபார்த்ததுபோன்றஉணர்வு		

இந்தபகுதியில் 50 கேள்விகள் கொடுக்கப்பட்டுள்ளன. ஒவ்வொருகேள்விக்கும் ஆம் எனில்

“1”மதிப்பெண் மற்றும் இல்லைஎனில் “0” மதிப்பெண் பெறும்.

குழந்தையின் நிலை	மதிப்பெண்
இயல்பானநிலை	: 0
ஏல்லைக்கோட்டுபதற்றம்	: 1-10
லேசானபதற்றம்	: 11-20
மிதமானபதற்றம்	: 21-30
கடுமையானபதற்றம்	: 31-40
மிகமிககடுமையானபதற்றம்	: 41-50

Ref. No. 9101/E4/3/2013

**Govt Rajaji Hospital,
Madurai-20. Dated: 20.09.2013**

Institutional Review Board I independent Ethics Committee,

Dr. N. Mohan, MS., F.L.C.S F.A.I.S.,

Dean, Madurai Medical College &

Govt Rajaji Hospital, Madurai 625020. **Convener.**

Sub: Establishment-Govt. Rajaji Hospital. Madurai-20-
Ethics committee-Meeting Minutes- for August 2013

Approved list -regarding.

The Ethics Committee meeting of the Govt. Rajaji Hospital, Madurai was held on 08.08,2013, Wednesday at 10.00 am to 12.00.pm at the Anesthesia Seminar Hall, Govt. Rajaji Hospital, Madurai. The following members of the committee have attended the meeting.

I Dr. V, Nagarajan, M.D., D.M (Neuro) Ph: 0452-2629629 Cell.No 9843052029	Professor of Neurology (Retired) D.No.72, Vakkil New Street, Simmakkal, Madurai -1	Chairman
2. Dr.Mohan Prasad. MS M.Ch Cell,No.9843050822 (Oncology)	Professor & H.O.D of Surgical Oncology(Retired) D.No.72, West Avani Moola Street. Madurai -1	Member Secretary
3. Dr. I. Jeyaraj, M.S... (Anatomy) Cell.No 9566211947	Director & Professor Institute of Anatomy /V,P Madurai Medical College	Member
4. Dr. Parameswari M.D (Pharmacology) Cell.No.9994026056	Director of Pharmacology Madurai Medical College	Member
5. Dr.S. Vadivel Murugan, MD., (Gen.Medicine) Cell.No 9566543048	Professor of Medicine Madurai Medical College	Member
6. Dr.S. Meenakshi Sundaram, MS (Gen.Surgery) Cell.No 9842138031	Professor & H.O.D of Surgery i/c Madurai Medical College	Member
7. Miss, Mercy Immaculate Rubalatha, MA., Med., Cell. No. 9367792650	50/5, Corporation Officer's quarters, Gandhi Museum Road, Thamukam, Madurai-20	Member
8. Thiru. .Pala. .Ramasamy , BA.,B.L.,Cell.No 9842165127	Advocate, D.No,72.Palam Station Road, Sellur, Madurai -2	Member
9. Thiru. P.K.M. Chelliah,B.A Cell.No 9894349599	Businessman, 21 Jawahar Street. Gandhi Nagar, Madurai-20	Member

The following Projects were approved by the committee

S.No	Name of P.G	Course	Name of the Project	Remarks
1.	N. Chendraya Perumal	M.Sc Nursing, College of Nursing, Madurai Medical College	“A study to assess the effectiveness of play material on the level of anxiety among hospitalized children(9-12 yrs) in pediatric medical ward at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai.”	Approved

Please note that the investigator should adhere the following: She / He should get a detailed informed consent from the patients/participants and maintain it confidentially.

1.She / he should carry out the work without detrimental to regular activities as well as without extra expenditure to the institution or to Government,

2. She/he should inform the institution Ethical Committee, in case of any change of study procedure, site and investigation or guide.

3. She / He should not deviate the area of the work for which applied for Ethical clearance, She / He should inform the JEC immediately, in case of any adverse events or Serious adverse reactions.

4, She / He should abide to the rules and regulations of the institution,

5. She / He should complete the work within the specific period and if any Extension of time is required He / She should apply for permission again and do the work,

6. She / He should submit the summary of the work to the Ethical Committee on Completion of the work.

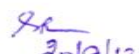
7. She / He should not claim any funds from the institution while doing the work or on completion.

8. She / He should understand that the members of IEC have the right to monitor the work with prior intimation.


Member Secretary Chairman
Ethical Committee


DEAN/Convenor
Govt. Rajaji Hospital,
Madurai- 20.

To
The above Applicants
-thro. Head of the Department concerned


2019/13

LETTER SEEKING PERMISSION FOR CONDUCTING THE STUDY

From

N.Chendraya perumal,
M.Sc (N) I year student (Br- II. Child Health Nursing),
College of Nursing,
Madurai Medical College, Madurai – 20.

To

The Director,
Institute of Child Health and Research Centre,
Government Rajaji Hospital,
Madurai Medical College,
Madurai.

Through

The Proper Channel

Respected Sir,

Sub :College of Nursing, Madurai Medical College, Madurai – M.Sc.(N) I year
Child Health Nursing Student – Permission for conduct dissertation
study- Institute of Child Health and Research Centre, GRH – request –
regarding.

As per the Indian Nursing Council and the Tamilnadu Dr. M.G.R. Medical
University curriculum requirement all branches of M.Sc Nursing candidates are required to
conduct a dissertation study for the partial fulfillment of the P.G Degree course in their
respective departments.

I have selected a study topic "A study to assess the effectiveness of play
activities in reducing the level of anxiety among hospitalized children in pediatric
medical ward at Government Rajaji Hospital, Madurai." for my dissertation study; I
would like to select patients from the above department.

I assure that I will not interfere with the routine activities of the department.


Hence, I Kindly request you to consider my requisition and permit me to
conduct the study.

Thanking you,


Yours obediently,


(N.CHENDRAYA PERUMAL)

DATE : 07.05.2013
Madurai


R. JEYASUNDARI M.Sc., (N) M.Phil., PGDHA,
M.A., (Pub. Admin) (Socio) M.A., (JMC)
Clinical Lecturer / Tutor in Nursing
COLLEGE OF NURSING
MADURAI MEDICAL COLLEGE
Madurai-625 020.

(Co-ordinator & HOD in Child Health Nurs.)

Permitted

DIRECTOR
13

INSTITUTE OF CHILD HEALTH &

CERTIFICATE OF VALIDATION

This is to certify that the tool developed for data collection by N. Chendraya Perumal, II year M.Sc (N) Student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on Dissertation entitled “A study to assess the effectiveness of play material on the level of anxiety among hospitalized children(9-12 yrs) in pediatric medical ward at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai.” is relevant, valid and fulfill the study objectives and has been validated by me.

Place:

Date:




Signature of the Expert
DIRECTOR I/C
INSTITUTE OF CHILD HEALTH &
RESEARCH CENTRE
GOVT. RAJAJI HOSPITAL
MADURAI - 625 020

Designation and Address

CERTIFICATE OF VALIDATION

This is to certify that the tool developed for data collection by **N. Chendraya Perumal**, II year M.Sc (N) Student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on Dissertation entitled “A study to assess the effectiveness of play material on the level of anxiety among hospitalized children(9-12 yrs) in pediatric medical ward at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai.” is relevant, valid and fulfill the study objectives and has been validated by me.

Place: *Madurai*

Date: *11.9.13.*


Signature of the Expert

DR. N. KARUPPASAMY
M.S. (GEN) : D.L.O., M.Ch., (Paed)
Assistant Professor
Designation and Address
Madurai Medical College /
Regd. No : 43434.

CERTIFICATE OF VALIDATION

This is to certify that the tool developed for data collection by **N. Chendraya Perumal**, II year M.Sc (N) Student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on Dissertation entitled "A study to assess the effectiveness of play material on the level of anxiety among hospitalized children(9-12 yrs) in pediatric medical ward at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai." is relevant, valid and fulfill the study objectives and has been validated by me.

Place: Madurai

Date: 30.08.2013

Signature of the Expert

Designation and Address

Dr. A. HELEN. M. PERDITA .
PRINCIPAL.
MADURAI APOLLO CON.
Eliyapathy Village .
Madurai South Taluk .
Madurai - 22 ,
perditamary@yahoo.co.in
maduraiacoln@gmail.com

CERTIFICATE OF VALIDATION

This is to certify that the tool developed for data collection N. Chendraya Perumal, II year M.Sc (N) Student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on Dissertation entitled "A study to assess the effectiveness of play material on the level of anxiety among hospitalized children(9-12 yrs) in pediatric medical ward at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai." is relevant, valid and fulfill the study objectives and has been validated by me.

Place: *Manamadurai*

Date: *12/9/13*

S. Jeyaraj
Signature of the Expert

Designation and Address

*Associate Professor
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CERTIFICATE OF VALIDATION

This is to certify that the tool developed for data collection by **Muthu Meenakshi. N**, II year M.Sc (N) Student, College of Nursing, Madurai Medical College, Madurai, who has undertaken the study field on Dissertation entitled “A study to assess the effectiveness of play material on the level of anxiety among hospitalized children(9-12 yrs) in pediatric medical ward at Institute of Child Health and Research Centre, Government Rajaji Hospital, Madurai.” is relevant, valid and fulfill the study objectives and has been validated by me.

Place: madurai.
Date: 13/9/13.

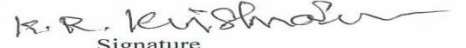
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TO WHOMSOEVER IT MAY CONCERN

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புதல் அறிக்கை

எனக்கு இந்த ஆய்வைப்பற்றிய முழு விவரம் விளக்கமாக எடுத்துரைக்கப்பட்டது. இந்த ஆய்வில் பங்குபெறுவதில் உள்ள நன்மைகள் மற்றும் தீமைகள் பற்றி நான் புரிந்துகொண்டேன். நான் இந்த ஆய்வில் தானாகவே முன்வந்து பங்கு பெறுகிறேன். மேலும் எனக்கு இந்த ஆய்வில் இருந்து எந்த நேரமும் விலகிக்கொள்ள முழு அனுமதி வழங்கப்பட்டுள்ளது. என் குழந்தையின் சிகிச்சை ஆவணங்களைப் பார்வையிட்டு அதில் உள்ள விவரங்களை ஆய்வில் பயன்படுத்திக் கொள்ள அனுமதி அளிக்கிறேன். என்னுடைய பெயர் மற்றும் அடையாளங்கள் ரகசியமாக வைத்துக்கொள்ளப்படும் என்றும் எனக்கு உறுதியாளிக்கப்பட்டுள்ளது.

இப்படிக்கு,



