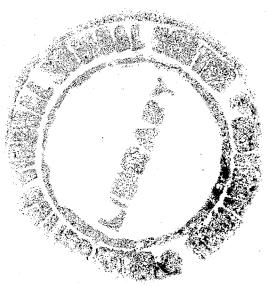
# A STUDY TO ASSESS THE SATISFACTION WITH PREOPERATIVE VISIT BY ICU NURSE AMONG MOTHERS' OF CHILDREN UNDERGOING CARDIAC SURGERY IN CHICU, SCTIMST.

**Project report**

**Submitted in partial fulfillment of the requirements**

**For the**

**Diploma in Cardiovascular and Thoracic Nursing**

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(October 2009)

## Certificate from Supervisory Guide

This is to certify that ARYA.P has completed the project work on " **A study to assess satisfaction with preoperative visit by ICU nurse among parents of children undergoing cardiac surgery in CHICU, SCTIMST"** under my direct supervision and guidance for the partial fulfillment for the "Diploma in Cardiovascular and Thoracic Nursing" in the University of Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum. It is also certified that no part of this work report has been included in any other thesis for procuring any other degree by the candidate.

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# Certificate from Candidate

This is to certify that the project report on" **A study to assess satisfaction with preoperative visit by ICU nurse among mothers' of children undergoing cardiac surgery in CHICU, SCTIMST"** is a genuine work done by me at the Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum under the guidance of Dr Saramma P.P. It is also certified that this work has not been presented previously to any university for award of degree, diploma, fellowship or other recognition.

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# Approval Sheet

This is to certify that **Miss ARYA** bearing Roll no. 5882 has been admitted to the Diploma in Cardio vascular and Thoracic Nursing in month-year and she has undertaken the project entitled" **A study to assess satisfaction with preoperative visit by ICU nurse among mother's of children undergoing cardiac surgery in CHICU, SCTIMST"** which is approved for the Diploma in Cardio Vascular and Thoracic Nursing under University as it is found satisfactory.

Examiners

_____

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Guide(s)

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Date: _____

Place: _____

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## LIST OF ABBREVIATIONS

| | |
|---|---|
| CHICU | Congenital Heart Intensive Care Unit |
| CHWRD | Congenital Heart Ward. |
| CHD | Congenital Heart disease. |
| ASD | Atrial Septal Defect. |
| VSD | Ventricular Septal Defect. |
| ICR | Intra Cardiac Repair. |
| BDG | Bi Directional Glenn Shunt |

# CHAPTER-1

## INTRODUCTION

## 1.1 INTRODUCTION

Congenital heart disease refers to a problem with the heart's structure and function due to abnormal heart development before birth. Pediatric cardiology is a specialty concerned with all aspects of care of patients with congenital heart disease, from the fetus to adulthood. The incidence of congenital heart diseases (CHD) is 8-10 per 1,000 live births. Early diagnosis of CHD is important because the delayed diagnosis of severe CHD can lead to cardiac failure, cardiovascular collapse and even death. Many infants died without the diagnosis of CHD. Routine neonatal examinations fail to detect more than 50% of infants with CHD. Every year 1.75-lakh children are born with heart diseases in India, of whom only 5,000 are diagnosed on time and operated upon. Sometimes CHD improves with no treatment necessary. At other times the defect is so small and does not require any treatment. Most of the time CHD is serious and requires surgery and medications. Medications

include diuretics and digoxin some defects requires surgical procedures to repair as much as possible to restore circulation back to normal. In some cases, multiple surgeries are needed to be performed to help balance the circulation. Interventional cardiology now offers patients minimally invasive alternatives to surgery. Device closures can now be treated with a standard transcatheter procedure using a closure device mounted on a balloon catheter.

As surgical correction is one of the mojor treatment options for congenital defects the incidence rate is high. Most patients & parents are somewhat fearful of surgery. Therefore health care professionals need to remember that although surgery may be a common place for them, it is still a frightening experience for the client.

Child constitutes the foundation of nation because only healthy babies can evolve in to strong adults who will contribute to human resources. Pre-surgical preparation programs allow children and their families the opportunity to preview the hospital experience in a supportive environment to reduce anxiety, increase knowledge,

and enhance coping. (Justus et al., 2006). Preoperative health education of the cardiac surgical patient plays a vital role in the patient's postoperative care & the recovery process (shuldham et al., 2001). Parental preoperative anxiety is of particular importance, as increased parental anxiety has been shown to result in increased anxiety in their children. This heightened anxiety response, in turn, leads to immediate postoperative maladaptive behavioral responses, such as nightmares, separation anxiety, eating disturbances, and new-onset enuresis. Indeed, recent reports suggest that up to 54% of all children undergoing general anesthesia develop new negative behaviors after surgery. Although multiple interventions are available to reduce a child's anxiety, there is a paucity of interventions directed toward reduction of parental anxiety (Kain., 1999). Benefits of preparation programs include increased knowledge, enhanced coping strategies, decreased anxiety, lessened fears, and better trust between families and health care providers with parents perceiving and "acknowledging that they are receiving a high quality of care and, possibly, a reduction in litigation due to increased satisfaction with the medical experience" (Squires, 1995).

Over the past 20 years, giving preoperative information to patients has been recognized as benefiting them greatly (Hayward, 1975) Similarly, preoperative visits by theatre nurses have been widely advocated to allay patient anxiety (carter et a .,1996).Preoperative health assessment and patient education are essential to a successful surgical outcome. A health assessment generally is required before any surgical procedure or medical testing that necessitates use of anesthesia (Michelle, 2000). Comprehensive preoperative education for cardiac surgical patients sets the stage for preventing postoperative complication and improving the patient's out come (Havrilak, 2005). Many nurses have acknowledged that adequate pre-operative teaching can alleviate patients' anxiety, increase patient participation in their own care, and minimize post-operative complications. Patients are frequently dissatisfied with the lack of procedural information they are offered by their physicians (Kain, 1999). Preoperative and post-operative education provided at the time of the initial decision to perform surgery may not be absorbed fully by family members. Teaching provided closer to the day of surgery, when family members are focused and prepared for the information, has a greater likelihood of being understood and followed.

## 1.2 BACKGROUND OF THE STUDY

Comprehensive pre-operative education for cardiac surgery patients sets the stage for preventing post-operative complications and improving the patient's outcomes (Havrilak, 2005). Ideally patients should be admitted days prior to Surgery for the pre-operative work up. This ensures that the necessary preparations for cardiac surgery is completed, and could reduce the patient's anxiety. (Nelson, 1995) states that anxious and tense patients may make a slower recovery post-operatively due to psychological and physiological stress. Worried relatives and friends also need reassurance and support from the nursing staff. Most clients (patients) are somewhat fearful of surgery. The extent to which a client fears surgery depends on his/ her personality, general responses to stress, mental health, past experiences with surgery and preconceptions about surgery and anaesthesia. Some respond by becoming silent, withdrawn, childish, belligerent, evasive, tearful and clingy. Most clients feel helpless when admitted to a health care facility. Nurses are ideally placed to provide cardiac surgery patients and their families with the pre-operative health education advice, information and support. The cardio-thoracic nurse coordinator is equipped with appropriate knowledge, skills and time to deliver pre-operative education to the

client. Clients and families need to be clear about the operation itself and the likely future effects. Research has shown that providing information decreases patients' anxiety by increasing feelings of control (Walsh, 1997). Anxiety levels, stress and pain can also be reduced by good pre-operative information. In turn, reduced anxiety might help to shorten hospital stay (Nelson, 1995).

**CONGENITAL HEART DISEASE.**

In most cases, the cause is unknown. Sometimes a viral infection or hereditary causes the condition. Some congenital heart defects are the result of too much alcohol or drug use during pregnancy.

Most heart defects either cause an abnormal blood flow through the heart, or obstruct blood flow in the heart or vessels.

**Types of congenital heart defect**

**A cyanotic heart defects: -**

**Obstructive defects**

## Aortic Stenosis (AS)

In this condition, the aortic valve between the left ventricle and the aorta did not form properly and is narrowed, making it difficult for the heart to pump blood to the body. A normal valve has three leaflets or cusps, but a steno tic valve may have only one cusp

(unicuspid) or two cusps (bicuspid). In some children, chest pain, unusual tiring, dizziness or fainting may occur. Otherwise, most children with aortic stenosis have no symptoms. But, even mild stenosis may worsen over time, and surgery may be_needed correct the blockage - or the valve may need to be replaced with an artificial one.

## Pulmonary stenosis:-

The pulmonary, or pulmonic, valve, located between the right ventricle and the pulmonary artery, opens to allow blood to flow from the right ventricle to the lungs. When a defective pulmonary valve does not open properly, it causes the heart to pump harder than normal to overcome the obstruction. Usually, the obstruction can be corrected by balloon valvuloplasty, although in some patients, open-heart surgery may be needed.

## Bicuspid aortic valve: -

In this condition, an infant is born with a bicuspid valve, which has only two flaps. (A normal aortic valve has three flaps that open and close). If the valve becomes narrowed, it is more difficult for the blood to flow through, and often the blood leaks backward. Symptoms usually do not develop during childhood, but are often detected during the adult years.

## Sub aortic stenosis:-

This condition refers to a narrowing of the left ventricle just below the aortic valve. Normally, blood passes through it to go into the aorta. However, sub aortic stenosis limits the blood flow out of the left ventricle, often resulting in an increased workload for the left ventricle. Sub aortic stenosis may be congenital or caused by a form of cardiomyopathy.

## Coarctation of the aorta :

In this condition, the aorta is narrowed or constricted, obstructing blood flow to the lower part of the body and increasing blood pressure above the constriction. Usually there are no symptoms at birth, but they can develop as early as the first week after birth. If severe symptoms of high blood pressure and congestive heart failure develop, surgery may be considered.

**Septal defects**: -

Some congenital heart defects allow blood to flow between the right and left chambers of the heart because an infant is born with an opening in the septum wall that separates the right and left sides of the heart.

## Atrial Septal defect (ASD):-

In this condition, there is an abnormal opening between the two upper chambers of the heart - the right and left atria - causing an abnormal blood flow through the heart. Children with ASD have few symptoms. Closing the atrial defect by open-heart surgery in childhood can often prevent serious problems later in life.

## Ebstein's anomaly: -

In this defect, there is a down ward displacement of the tricuspid valve (located between the upper and lower chambers on the right side of the heart) into the right bottom chamber of the heart (or right ventricle). It is usually associated with an atrial septal defect.

## Ventricular Septal defect (VSD):-

In this condition, a hole occurs between the two lower chambers of the heart. Because of this hole, blood from the left ventricle flows back into the right ventricle, due to higher pressure in the left ventricle. This causes an extra volume of blood to be pumped into the lungs by the right ventricle, which can create congestion in the lungs.

**Cyanotic defects: -**

Cyanotic defects are defects in which blood pumped to the body contains less-than-normal amounts of oxygen, resulting in a

condition called cyanosis. It causes a blue discoloration of the skin. Infants with cyanosis are often called "blue babies.

## Tetrology of fallot: -

This condition is characterized by four defects, including the following:

- An abnormal opening, or ventricular septal defect, that allows blood to pass from the right ventricle to the left ventricle without going through the lungs
- A narrowing (stenosis) at or just beneath the pulmonary valve that partially blocks the flow of blood from the right side of the heart to the lungs
- The right ventricle is more muscular than normal
- The aorta lies directly over the ventricular septal defect

Tetra logy of Fallot is the most common defect causing cyanosis in persons beyond 2 years of age. Most children with tetralogy of Fallot have open-heart surgery before school age to close the ventricular septal defect and remove the obstructing muscle. Lifelong medical follow-up is needed.

## Tricuspid Artesia: -

In this condition, there is no tricuspid valve, therefore, no blood flows from the right atrium to the right ventricle. Tricuspid Artesia defect is characterized by the following:

- A small right ventricle
- A large left ventricle
- Diminished pulmonary circulation
- Cyanosis

A surgical shunting procedure is often necessary to increase the blood flow to the lungs. The bi-directional Glenn shunt (BDG) is performed by connecting the superior vena cava (SVC) to the right branch of the pulmonary artery using fine sutures, and dividing or tying up the pulmonary artery. Now, venous blood from the head and upper limbs will pass directly to the lungs, bypassing the right ventricle. The venous blood from the lower half of the body however will continue to enter the heart.

## Transposition of the great arteries; -

In this embryologic defect, the positions of the pulmonary artery and the aorta are reversed, thus:

- The aorta originates from the right ventricle, so most of the blood returning to the heart from the body is pumped back out without first going to the lungs.
- The pulmonary artery originates from the left ventricle, so that most of the blood returning from the lungs goes back to the lungs again.
- Immediate medical intervention is necessary to correct this condition.

**Other defects:**

**Left Heart Syndrome :-**

In this condition, the left side of the heart is underdeveloped, including the aorta, aortic valve, left ventricle, and mitral valve. Blood reaches the aorta through a patent ductus arteriosus, and if this ductus closes, as is normal, the baby will die. The baby often seems normal at birth, but the condition will become noticeable within a few days of birth, as the ductus closes. Babies with this syndrome become pale, have difficulty breathing, and are unable to feed. Treatment may include complex surgery or a heart transplant.

Patent Ductus Arterious (PDA) :-

This defect, which normally occurs during the fetal life, short circuits the normal pulmonary vascular system and allows blood to mix between the pulmonary artery and the aorta. Prior to birth, there is an open passageway between the two blood vessels, which closes soon after birth. When it does not close, some blood returns to the lungs. Patent ductus arteriosus is often seen in premature infants.

## 1.3 NEED AND SIGNIFICANCE OF THE STUDY

A pre-operative visit refers to communication between a surgical patient and a nurse in the period before the patient is taken to theatre. It is an unfortunate truth that most patients enter hospitals and operating rooms with unnecessary fears and anxieties. A great part of this apprehension stems from a lack of knowledge about their illness and the operative procedure that is to be performed on them. The persistence of these anxieties often interferes greatly with smooth post-operative results (Hayward, 1975)

Cardio thoracic nurses play a major role in preparing patients and families for operations. In facilities where cardiac

surgery is performed routinely, preoperative instruction and psychological support are an integral component of nursing care .Ideally nurses who will provide care in the post operative period perform preoperative teaching and councelling.The designated nurse can assess the patient before surgery, plan for any special postoperative or discharge needs, and communicate information to other nursing staff.

Pre-operative care begins when the decision for surgical intervention is made and ends when the client is transferred to the operative suite. The scope of nursing during this time could include baseline evaluation of the patient (Phipps et al., 1999).

Pre-operative visiting by intensive care nurses is now policy in many hospitals, following an explosion of research studies outlining the benefits to the patient. But in Sree Chitra Tirunal institute it is not a routine method. The purpose of this project is to explore the need for patient information, outline the aims of an ICU nurse's pre-operative visit, and discuss the timing of the proposed visit, the information to give the patient, the inclusion of the patient's family and the provision of printed literature.

## 1.4 STATEMENT OF THE PROBLEM: -

A study to assess satisfaction with preoperative visit by ICU nurse among mothers of children undergoing cardiac surgery in CHICU, SCTIMST.

## 1.5 OBJECTIVES: -

1) To assess satisfaction of mothers of children undergoing cardiac surgery about preoperative visit.

2) To assess the functional outcome of the child undergoing cardiac surgery.

## 1.6 OPERATIONAL DEFINITIONS: -

**Preoperative visit: -**

Here pre-operative visit refers to communication between parents of children undergoing cardiac surgery in CHICU, SCTIMST and an ICU nurse in the period of day before surgery to the patient is taken to theatre.

**Cardiac surgery: -**

In the context of this study, cardiac surgery will refer to open-heart surgery mainly correction of congenital cardiac defects. This involves opening of the thoracic cavity (thoracotomy) by cardio-thoracic personnel to repair defect results when the heart or blood vessels near the heart don't develop normally before birth.

**Assessment: -**

The assessment process consists of collection &analysis of data to determine the satisfaction of mothers of children undergoing cardiac surgery.

**Congenital heart intensive care unit (CHICU): -**

Congenital heart intensive care unit is a multidisciplinary unit that provides postoperative care for infants &adolescents who undergoing congenital cardiac surgery.

## 1.7 METHODOLOGY: -

Settings : CHICU&CHWRD, SCTIMST

Sample : mothers of children undergoing cardiac surgery.

Sample size: 30mothers

Study design: -

- One group received preoperative education (interventional group)-15 mothers.
- Other group (control group) did not receive health education. -15 mothers.

Sample technique: random sample

Exclusion criteria:

- Emergency surgery cases

## 1.8 Tool preparations: -

In order to assess satisfaction with preoperative visit by icu nurse among parents of children under going cardiac surgery self prepared questionnaire including24 questions based on surgery, various aspects of preoperative preparation on the day before surgery & on the day of surgery, icu care& hospital routines.

## 1.9 Delimitations: -

- Only Malayalam speaking mothers
- Sample size is 30

## 1.10 Organization of the report:-

Chapter 1 deals with introduction, background of the study, need and significance of the study, statement of the problem, objectives operational definitions, &delimitations chapter 11 deals with review of literature chaptre111 deals with the methodology and chapter1v presents analysis and interpretation of data &chapter v include summary, discussion, conclusion& recommendations references & appendice are give towards the end.

# CHAPTER II

## 2.1 REVIEW OF LITERATURE

Review of literature is an important aspect of any research project from beginning to end. It gives character in sight in to the problem and help in selecting methodology, developing and also analyzing data, with there in view an intensive review of literature has been done.

The review of literature relevant to this study is presented in the following sections.

2.1 Assess the satisfaction of parents and patients with preoperative education.

2.2 Assess the out come of patients with preoperative health education

2.3 Out come studies in children after open-heart surgery.

## 2.1 Assess the satisfaction of parents and patients with preoperative education.

Daykin et al., (2003) conducted a study to detect the importance of preoperative visit for critical care patient. The preoperative visit was arranged to take place on the patient's arrival on the surgical ward. Nursing staff considered that this would enable patients to receive more individualized care. A protocol was set up to ensure that each patient received the same information from the nurse. This information covered details about theatre and the ICU including the nil-by-mouth rule and the 'checklist' procedure, whereby patients are asked for their name and date of birth before all interventions. The investigator also provides patients and relatives with written information during preoperative visits the patients are encouraged to ask questions about their care and are offered an escorted visit to the ICU to give them the opportunity to become familiar with the surroundings. A satisfaction survey was conducted. During this time the critical care pain nurse selected 60 patients for interview at their follow-up visit. This usually took place the day after their patient-controlled

analgesia or epidural had been removed and they were back in the surgical ward.

Patients were asked to answer yes or no to the following questions:- Patient information - was the information given at preadmission useful?

- Anxiety - did the information help relieve anxiety?

- Pain - was your pain well controlled?

- Sleep - were you able to sleep while in the ICU

- Noise - was the ICU unit noisy?

- Lighting - did the lighting interfere with your ability to sleep at night?

The first three questions were to help ascertain the effects of preoperative visiting and the provision of information on patients' pain and anxiety. Over 98 per cent of the patients said that the information they received during the visits was useful and the nursing staff think that it has certainly benefited patients who have returned for further surgery. The fact that 98 per cent of the patients felt less anxious after receiving the information suggests that good information relieves patient anxiety. The data regarding pain control also suggests this was adequate, as 94 per cent of patients felt their pain had been well controlled. Nursing staff had been concerned that sleeping difficulties would be a significant

problem for these patients. However, sleep, noise and lighting did not seem to be a major concern for patients, although some (12-14 per cent) did not sleep and this issue needs to be addressed on an individual basis. The author hoped that by continuing to improve this service the quality of patient care and satisfaction would be maintained at the highest possible level.

Hepner et al., (2004) conducted a study about patient satisfaction with preoperative assessment. The researcher distributed one page questionnaire consisting of satisfaction with clinical and nonclinical providers to patients. Questions had five Likert scale options that ranged from excellent (5) to poor (1). The authors concluded that the practitioner and functional aspects of the preoperative visit have a significant impact on patient satisfaction, with information and communication versus the total amount of time spent being the most positive and negative components, respectively

Edward et al., (2008) assessed the quality of the preperative assessment-testing clinic by obtaining detailed patients' feedback on the quality of thePAC, establishing the value patients and professionals attach to different care aspects, using the Patient Experiences with the Preoperative Assessment Clinic questionnaire. The result was patient had the most positive

experiences with the nurse, and the least positive experiences with waiting. However, waiting was least important to patients.

Walker (2007) conducted a study to assess the relationship between the provision of written information given to patients' preoperatively and their postoperative recovery following elective surgery. It is not currently apparent, which is the most effective method of delivering preoperative information, or at what stage of the preoperative phase is the optimum time to deliver such important information. The purpose of this review is to briefly outline the affiliation between anxiety experienced by surgical patients and the information received preoperatively and to examine the relationship between the provision of written information given to patients preoperatively and their postoperative recovery following elective surgery. Research findings are contradictory with respect to the effect of preoperative information on postoperative pain and patient satisfaction. However, research indicated that the provision of good-quality preoperative information facilitates patients' active involvement in their care, and therefore may contribute to an overall increase in satisfaction. There remains a need for rigorous research that identifies the optimum timing and method of delivering preoperative information

to maximize their positive effects on patients undergoing elective surgery.

Murola et al., (2007) conducted a study that revealed Preoperative interview is important tool to receive and give information concerning postoperative pain management. And he assessed patient satisfaction with postoperative pain management--effect of preoperative factors. Patients often suffer from inadequate treatment of postoperative pain. The purpose of this study was to survey the factors affecting patient satisfaction with postoperative pain management. A questionnaire with 41 items was given on the third postoperative day to 102 patients undergoing major orthopedic or vascular surgery. Intensity of pain was assessed using a 10-cm visual analogue scale (VAS) and given analgesics were recorded. Nurses (n = 74) working on the wards received a questionnaire concerning attitudes toward management of pain. The questionnaires were returned by 75.5% of the patients and 86.3 % of the nurses. Mean VAS on all wards was 2 (scale 0-10). Twenty-eight percent of the patients agreed having hard pain during the day of the operation and 39.3% during the first postoperative night. Eighty percent of the patients were satisfied with pain management, and their satisfaction correlated significantly with received preoperative information ($p < .01$) and

preoperative well being ($p < .01$). There is discrepancy between the amount of experienced pain and values of the frequent VAS recordings, which does not seem to be due the nurses' attitudes toward pain.

Sjoling et al., (2008) conducted a study to assess the impact of preoperative information on state anxiety, postoperative pain and satisfaction with pain management The primary objective of this study was to test whether specific information given prior to surgery can help patients obtain better pain relief after total knee arthroplasty (TKA). Secondary objectives were to study the impact of preoperative information on state and trait anxiety, satisfaction with pain management and satisfaction with nursing care. The study was an intervention study with two groups of equal size (n=30). The intervention group was given specific information while the control group received routine information. Pain assessments were made preoperatively and every 3 h for the first three postoperative days, using the visual analogue scale (VAS). The results of this study suggest that information does influence the experience of pain after surgery and related psychological factors. The postoperative pain declined more rapidly for patients in the treatment group, the degree of preoperative state anxiety was

lower and they were more satisfied with the postoperative pain management.

Bulut, (2006) conducted a study to determine the effect of adding a service unit planned to be carried out by nurses into the current emergency workflow on the patient satisfaction. The research was carried out on 300 patients who were discharged from a University Hospital Emergency Department. The data of the research were collected by using Patient Identification Form, Nurse Activity Form, and The Evaluation Form for Service of Giving Information and Patient Follow-up Form. The patients were informed by the information booklet developed by the researcher, their questions were answered and a copy of the information booklet was given to the patients and/or their families. The patients were called from their homes or offices one week after their discharge from the hospital and their satisfaction levels of the information given by the researcher were questioned. The data collected from the research were analyzed in computer by using percentage, chi-square and the significance test for universe rate. It was determined that the level of patient satisfaction was increased when the information was given together with the booklet about their diseases, treatments and the cares and it was also understood that calling the patients to be followed was

essential. It is suggested that the in formations should be given to the patients and their relatives on discharge by the nurses and new information booklets should be developed.

**2) Assess the out come of patients with preoperative health education.**

Shuldham et al., (2002) conducted a study about the impact of pre-operative education on recovery following coronary artery bypass surgery. A randomized controlled clinical trial. This. Research has education exerts on the postoperative recovery of patients having surgery but little work has focused specifically on cardiac surgery. Therefore a randomized controlled trial was designed to elucidate the consequences of pre-operative education, given before admission, on postoperative pain, anxiety, depression and well being in the 6 months following a first episode of coronary artery surgery. Three hundred and fifty-six people were randomized into the study, with 188 in the experimental and 168 in the control arms. Patients in the experimental group received the intervention, a day of education by members of the multidisciplinary team, prior to admission for surgery. Experimental and control subjects had the usual care, which involved education on admission and throughout their stay in hospital. Measurement

was conducted on entry to the study, before randomization, and at 3 days, 6 weeks, 3 months and 6 months following operation. A variety of tools were used: the SF-36 Health Status questionnaire, the Hospital Anxiety and Depression scale, the General Well-Being questionnaire and a pain measurement tool. Analysis was done using the intention-to treat principle and non-parametric statistics. There were no significant differences between groups in the primary outcomes namely anxiety (P=0.09) and pain (P=0.48), or in depression (P=0.62) and well being ('worn out' P=0.11; 'tense and uptight' P=0.29) 6 months after operation. This was also the case 3 days after coronary artery surgery. There was a significant difference in length of hospital stay (P=0.01) with the experimental group having the longer stay. These findings contrast with much of the existing evidence. The findings demonstrated that there is no benefit to be gained from this form of pre-operative education and that there is an associated increase in length of hospital stay.

Arthur et al., (2000) conducted a study to examine the effect of a multidimensional preoperative intervention on presurgery and post surgery outcomes in low-risk patients awaiting elective CABG by randomized control trial in regional cardiovascular surgery center in a tertiary care hospital, southwestern Ontario, Canada. 249 patients on a waiting list for elective CABG whose surgeries

were scheduled for a minimum of 10 weeks from the time of study recruitment was selected. During the waiting period, the treatment group received exercise training twice per week, education and reinforcement, and monthly nurse-initiated telephone calls. After surgery, participation in a cardiac rehabilitation program was offered to all patients. Postoperative length of stay was the primary outcome and the secondary outcomes were exercise performance, general health-related quality of life, social support, anxiety, and utilization of health care services. The result was length of stay differed significantly between groups. Patients who received the preoperative intervention spent 1 less day [95% CI, 0.0 to 1.0 day] in the hospital overall (P = 0.002) and less time in the intensive care unit (median, 2.1 hours [CI, -1.2 to 16 hours]; P = 0.001). During the waiting period, patients in the intervention group had a better quality of life than controls. Improved quality of life continued up to 6 months after surgery. Mortality rates did not differ. And the author concluded that the waiting period for elective procedures, such as CABG, might be used to enhance in-hospital and early-phase recovery, improving patients' functional abilities and quality of life while reducing their hospital stay.

Hobbs (2002), conducted a study to detect any relation between preoperative education and patient outcome after

coronary artery bypass surgery. By randomized study 356 people to a day of education from members of a multidisciplinary team prior to admission for bypass surgery, with the control group receiving usual care was selected. Essentially, the results showed no difference between the groups in the primary outcomes, namely anxiety and pain, depression, or well being. Further, there was a significant difference in the length of hospital stay favoring the control populations, although this result was not explicable and represented less than one extra day in the intervention group compared to the mean 9 days seen in the control population. Clearly, therefore, this particular health service intervention would appear to rule out the utility of pre-operative education, at least for bypass surgery. These data are, however, in conflict with much earlier research into the value of pre-operative education on the basis of meta-analyses of studied. Which concluded that such education was beneficial. However, these earlier studies are old (largely conducted in the pre-1990s), used less reliable methods, band suffered from short-term follow-up. More recent and reliable studies have also demonstrated positive patient outcomes from personal education to patients and their carers, but have been conducted in selected patient populations in situations other than preoperatively .Is any negative result by this trial? The researcher

studied about this the hospital where the study was conducted operates a longstanding programme of educating patients at the point of admission for bypass surgery. The control population were not therefore a placebo group since they received education, but at a later date than that provided to the intervention group and possibly of lower intensity. One possible explanation for the negative results is therefore that there is only so much education that is likely to be beneficial. , Two-thirds of patients did not feel able or interested in devoting an extra day to education on their forthcoming surgery. This is a very important negative finding in terms of the feasibility of the intervention. Overall, this is an important study since comprehensively demonstrates the futility of providing pre-operative education to patients awaiting CABG surgery, at least in hospitals providing education at the point of admission. The researcher concluded that this particular educational intervention appears to have failed at the first hurdle and continued research should concentrate on what has proved positive to date, namely patient education on their surgery at the point of admission.

Griffin et al., (1998) conducted a study To determine the effect of intensive preoperative education on the outcome of Patient Controlled Analgesia (PCA) postoperatively. A randomized

study was carried out in a single teaching hospital over three months. One group of patients (n = 42) received a 20 min standardized tutorial regarding PCA use from a single investigator and the other group (n = 43) received no additional education apart from the routine preoperative anesthetic consultation. A blinded investigator assessed the patients following surgery. Pain scores and morphine consumption, patient satisfaction, side-effect profile and anti-emetic use were recorded at six, 24 and 48 hr postoperatively. The results suggested that specific preoperative education of patients using PCA does not alter pain scores, morphine consumption or patient satisfaction but may result in earlier and more effective use of anti-emetic medication.

Lamm et al., (2001) also conducted a study to investigate the effectiveness of a structured preoperative education program in patients receiving patient-controlled analgesia (PCA). The author selected 60 gynec patients who undergoing major gynecologic surgery. The investigator concluded that Structured preoperative PCA education did not affect patient outcome. The early improvement in patient satisfaction was minimized by continued education.

## 2.3 Outcome studies in children after open heart surgery.

Andersen et al., (2008) conducted a study to determine incidence, predictors and outcome [intensive care unit (ICU) mortality and length of stay (LOS)] after postoperative junctional ectopic tachycardia (JET) in an unselected Paediatric population. Patients with JET (n=89) were compared with non-JET controls (n=178) in a nested case-control study. The patient records of all children (n=874) who underwent corrective cardiac surgery on cardio-pulmonary bypass (CPB) between 1998 and 2005 were reviewed for postoperative JET. The overall incidence of JET was 10.2%. CPB duration>90 min [adjusted odds ratio (OR) 2.6; 95% confidence interval (CI) 1.1-6.5], high inotropic requirements (adjusted OR 2.6; CI 1.2-5.9) and high postoperative levels of creatine kinase (CK)-MB (adjusted OR 3.1; CI 1.3-7.1) were associated with an increased risk of JET. ICU mortality was higher for patients with JET (13.5%; CI 7.2-22.4%) than for controls (1.7%; CI 0.3-4.8%), and LOS in ICU was 3 times higher in JET patients (median 2 vs. 7 days, $p<0.001$). The authors concluded that JET occurred in approximately 10% of children following cardiac surgery and were associated with higher mortality and longer ICU stay. Risk factors included high inotropic requirements

after surgery and extensive myocardial injury in terms of high CK-MB values and longer CPB duration.

Delaney et al., (2006) conducted a study to determine the incidence and risk factors associated with the development of arrhythmias immediately after surgery in a pediatric population. Data were collected in a prospective observational format from pediatric patients undergoing cardiac surgery between September 2000 and May 2003 Patients were continuously monitored and hemodynamically significant arrhythmias were recorded. Arrhythmias occurred in 28 of the 189 patients enrolled (15%) including 16 with junctional ectopic tachycardia, 7 with complete atrioventricular block, 4 with ventricular tachycardia, and 1 with re-entrant supraventricular tachycardia. Significant differences were found between the arrhythmia and non arrhythmia groups with regard to age (22 vs. 45 months), cardiopulmonary bypass time (189 vs. 109 minutes), and aortic crossclamp time (105 vs. 44 minutes); $P < .05$. Magnesium and calcium levels were not significantly different between the groups. Two repairs carried an increased risk: complete atrioventricular septal defect repair, 8 of 11 patients (72%), and the arterial switch 5 of 8 patients (62.5%); $P < .05$. Atrioventricular septal defects had an even higher incidence when controlled for age, bypass time, and crossclamp

time (odds ratio = 7.65). The authors concluded that hemodynamically significant postoperative arrhythmias are a frequent complication of pediatric cardiac surgery. Younger age and longer bypass and crossclamp times were risk factors for arrhythmia. In addition, the repair of atrioventricular septal defects carried an independent risk of arrhythmias.

Miller et al., (1996) studied the neurodevelopment outcome of 104 consecutive unselected children who underwent open-heart surgery from 1987 through 1989. Survivors had formal neurologic and psychometric examinations after 2 years of age. Mean IQ was 90, and 78% had scores above 70. Cerebral palsy occurred in 22%. Deep hypothermia for longer than 45 minutes was associated with IQ less than 85 ($P < .001$) and later cerebral palsy ($P = .02$). Those less than 1 month old at operation had a median IQ of 96, and 25% had cerebral palsy. Median IQ for survivors of hypo plastic left heart syndrome was 66, only one had an IQ above 70, and 57% had cerebral palsy. Median IQ for transposition of great arteries was 109, only one was less than 85, and all had normal neurologic examinations. Those between 1 and 6 months of age at operation had a median IQ of 93, with 64% above 85, and 5% had cerebral palsy. Those older than 6 months had a median IQ of 99, with 70% above 85, and 13% had cerebral palsy.

The authors concluded that the majority of children have an uneventful outcome after open-heart surgery, a significant morbidity exists. This is related to several factors, including type of lesion and duration of hypothermia, particularly in neonates; preoperative congenital and acquired lesions; and possible perioperative cerebrovascular events.

Liang et al., (2005) conducted a study to investigate and analyze the possible risk factors for prolonged pleural effusion (PE) after total correction of TOF.Thirty-seven patients who received total correction of TOF between July 1999 and April 2001 were included in this study. They were divided into 2 groups according to the duration of chest tube drainage for postoperative PE: Group I had postoperative PE < or = 7 days; Group II had postoperative PE > 7 days. Detailed records were taken on patients' demographic characteristics, blood parameters, surgery, electrocardiographic and radiologic data, and angiographic and echocardiographic findings. Risk factors were analyzed by logistic regression and model selection. The authors concluded that Prolonged PE is a significant morbidity after TOF repair. The risk factors for prolonged PE are gender, age at repair, body weight, bypass time, low oxygen saturation before surgery, wound infection after surgery, duration of endotracheal intubation and

length of hospital stay. Oxygen saturation before surgery and wound infection was major risk factors while age at repair was a confounder.

Meissner et al., (2008) conducted a study to evaluate hemodynamic effects and the cardiac function after very early extubation within the first 6 hours after open-heart surgery in children. During a 12-month period, the authors performed a retrospective study of 50 children (ages 3 months to 7 years) admitted to the pediatric intensive care unit immediately after minor cardiac surgery. All children were extubated within the first 6 hours after their arrival. Arterial blood and central venous pressure were monitored, and arterial blood gas analysis was performed. Cardiac index, stroke volume index, systemic vascular resistance index, and extra vascular lung water index were measured by thermodilution. The authors concluded that Very early extubation in children after open-heart surgery does not promote cardiodepressive effects. It is a safe procedure that helps to reduce the unnecessary and prolonged mechanical ventilation of children after cardiopulmonary bypass surgery

Peiravian et al., (2007) conducted a study investigates the role of oral sildenafil in decreasing pulmonary pressure after congenital heart surgery. Between September 2002 and

September 2004, among a group of postoperative children with large septal defects, moderate to severe pulmonary hypertension [pulmonary artery (PA) to aortic (Ao) pressure ratio of 0.76 +/- 0.17] and systemic desaturation (Ao Sat = 0.89 +/- 0.11), oral sildenafil (0.3 mg x kg (-1), every 3 hours) was administered for a period of 24-48 hours (sildenafil group). These patients were compared to a group of 22 children with similar pathologies who did not receive sildenafil (control group). Postoperative PA pressure (28.61 +/- 7.80 vs. 39.40 +/- 10.80 mm Hg) and PA/Ao pressure (0.28 +/- 0.08 vs. 0.41 +/- 0.11) were significantly lower in the sildenafil group (p = 0.001 and 0.001 respectively). Pulmonary hypertensive crisis was detected in 4 patients in the control group, but none in the sildenafil group (p = 0.02). There was no significant rise in PA pressure following discontinuation of the drug (26.30 +/- 6.66 vs. 28.49 +/- 10.93 mm Hg, p = 0.366). The authors concluded that low doses of oral sildenafil appear to be effective and safe to control postoperative PA pressure in children. Absence of rebound pulmonary hypertension, availability, and low cost of the drug are considered as its major advantages.

Prince et al., 1999) conducted a study to evaluate the clinical, financial, and parent/patient satisfaction impact of critical pathways on the postoperative care of pediatric cardio thoracic

patients with simple congenital heart lesions. Critical pathways were used during a 12-month study on 46 postoperative patients with simple repair of atrial septal defect (ASD), Coarctation of the aorta (CoA), and patent ductus arteriosus (PDA). Using the study criteria, a control group of 58 patients was chosen from 1993. Resource utilization was reduced after implementation of critical pathways. Significant reductions were seen in total hours in the pediatric intensive care unit, total number of laboratory tests, postoperative intubation times, arterial blood gas utilization, morphine utilization, length of hospitalization (ASD, 4.9 to 3.1 days; CoA, 5.2 to 3.2 days; and PDA, 4.1 to 1.4 days; all $P < 0.05$), total hospital charges (ASD, $16,633 to $13,627; CoA, $14,292 to $8319; and PDA, $8249 to $4216; all $P < 0.05$), and total hospital costs. There was no increase in respiratory complications or other complications. Patients and families were generally satisfied with their hospital experience, including analgesia and length of hospitalization. The authors concluded that the Implementation of critical pathways reduced resource utilization and costs after repair of three simple congenital heart lesions, without obvious complications or patient dissatisfaction

Malviya et al., (2003) conducted a study to determine the incidence of peri- and postoperative complications in children

undergoing cardiac surgery while harboring an upper respiratory infection (URI) The study population consisted of 713 children scheduled to undergo cardiac surgery. Of these, 96 had symptoms of URI, and 617 were asymptomatic. Children were followed prospectively from induction of anesthesia to discharge from the hospital to determine the incidence of postoperative respiratory, cardiovascular, neurologic, and surgical adverse events. Duration of postoperative ventilation, time in the intensive care unit (ICU), and length of hospital stay were also recorded. Children with URIs had a significantly higher incidence of respiratory and multiple postoperative complications than children with no URIs (29.2 vs. 17.3% and 25 vs. 10.3%, respectively; P< 0.01) and a higher incidence of postoperative bacterial infections (5.2 vs. 1.0%; P= 0.01). Furthermore, logistic regression indicated that the presence of a URI was an independent risk factor for multiple postoperative complications and postoperative infections in children undergoing open-heart surgery. Children with URIs also stayed longer in the intensive care unit than children with no URIs (75.9 +/- 89.8 h vs. 57.7 +/- 63.8, respectively; P< 0.01). However, the overall length of hospital stay was not significantly different (8.4 vs. 7.8 days, URI vs. non-URI groups; P> 0.05). The authors concluded that the presence of a URI was predictive of postoperative infection and

multiple complications in children presenting for cardiac surgery. Despite this, the presence of a URI does not appear to affect the patient's overall length of hospital stay nor the development of long-term sequelae.

Zimmerman et al., (2003) conducted a study to determine multisite ventricular pacing (MSVP) may standard postoperative treatment of cardiac dysfunction after congenital heart surgery. The acute hemodynamic effects of MSVP after congenital heart surgery were assessed. Twenty-nine patients (aged 1 week to 17 years) with prolonged QRS interval had atrial and ventricular unipolar epicardial temporary pacing leads placed at surgery. Group 1 consisted of patients with a single ventricle (n = 14); group 2 included patients with two-ventricle anatomy (tetra logy of Fallot, ventricular septal defect) undergoing ventricular surgery (n = 10); and group 3 included patients with two-ventricle anatomy undergoing other cardiac surgery (n = 5). At a mean postoperative day 1 (range, 0 to 6), blood pressure, systemic and mixed venous oxygen saturations, electrocardiograms, and echocardiograms were obtained before and after 20 minutes of MSVP. The QRS duration decreased with MSVP in all patients (mean, 23%, $p < 0.005$). Systolic blood pressure improved in all patients (mean, 9.7%, $p < 0.005$). Cardiac index improved in 19 of 21 patients

tested, with no change in 2 patients (mean, 15.1%, p = 0.0001). In 2 patients, MSVP facilitated weaning from cardiopulmonary bypass. Echocardiographic mitral or tricuspid valve inflow was not significantly different with MSVP. The authors concluded that multisite ventricular pacing results in improved cardiac index and increased systolic blood pressure, and it can also facilitate weaning from cardiopulmonary bypass.

Chan et al., (2003) conducted a study to determine the risk factors for peritoneal dialysis (PD) in young children undergoing open-heart surgery and, in those patients requiring PD, factors associated with prolonged PD and mortality. The clinical records of 182 children, aged 3 years or younger, who had undergone open-heart surgery during a 2-year period were reviewed. Demographic data, preoperative risk factors, intraoperative variables, and postoperative complications were compared between patients requiring PD and those who did not, and between survivors and no survivors of PD. Of the 182 patients, 31 (17%) required PD. Patients requiring PD were lighter and more likely to have required preoperative ventilation; had undergone more complex surgery requiring longer bypass and circulatory arrest; and had experienced a pulmonary hypertensive crisis ($p < 0.01$). Logistic regression identified circulatory arrest (relative risk, 9.4; $p = 0.002$),

cardiopulmonary bypass duration (relative risk, 1.02; $p = 0.028$), and low cardiac output syndrome (relative risk, 12.9; $p < 0.0001$) as significant determinants. Prolonged PD was associated with younger age, higher preoperative serum creatinine, higher postoperative oxygen requirement, postoperative pulmonary hypertensive crisis, and low cardiac output syndrome ($p < 0.05$). When compared with survivors ($n = 22$), nonsurvivors ($n = 9$) were more likely to have had syndrome disorders and required preoperative ventilation and higher postoperative ventilatory settings ($p < 0.05$). The authors concluded that the risk factors for PD in young children undergoing open-heart surgery were circulatory arrest, cardiopulmonary bypass duration, and low cardiac output syndrome. The preoperative and postoperative cardiopulmonary status has a significant bearing on PD duration and patient survival.

Jensen (1992), conducted a study on nursing care of a child following an arterial switch procedure for transposition of the great arteries in 1992. The restoration of the left ventricle as the systemic pump and the lack of sinus node dysfunction (assessment with the Senning or Mustard procedure) have been suggested as the major advantages of the arterial switch procedure. Although the results are encouraging, children will

require follow up to assess: long-term left ventricular function; coronary ostial growth; aortic and pulmonic anastomosis growth; long-term aortic valve (anatomical pulmonary valve) dysfunction. A learning curve is inherent to a new surgical procedure. During this learning period, both surgical technique and patient selection criteria improve, resulting in reduced morbidity and mortality. The arterial switch procedure for TGA is certainly not an exception. Expert nursing assessment and intervention during the postoperative period is imperative and may reflect on the long-term outcome of these children.

**SUMMARY**

Review of literature enabled the investigator to have a deep knowledge& insight in to the problem. This chapter-covered introduction, review of literature related to assess the satisfaction of parents and patients with preoperative assessment and assess the out come of patients with preoperative health education.

# CHAPTER III

# METHODOLOGY

## INTRODUCTION

This chapter deals with research approach, research design, setting the sample & sample techniques, development of tool, description of tool, pilot study, data collection and plan of analysis.

**The aim of the study was: -**

- To assess the satisfaction of mothers of children undergoing cardiac surgery about preoperative visit.
- To assess the functional out come of child undergoing cardiac surgery.

**Research design: -**

To accomplish the objective of the study the investigator used consecutive sampling and mothers were randomly assigned to experimental and control group on weekly basis. One group received preoperative education (experimental group) other group (control group) did not receive health education. In order to assess satisfaction with preoperative visit by icu nurse among mothers of children under going cardiac surgery self prepared questionnaire includin18 questions based on various aspects of

preoperativePreparation on the day before surgery & on the day of surgery, ICU care& hospital routines.

**Settings of study: -**

The study was conducted in the CHICU & CHWRD at SCTIMST, Trivandrum. The rationale for selecting this hospital was that this is one of the super specialty referred hospital in India. Various of cardiac surgeries include minor to major surgeries are performed here. Here there is a separate complex for congenital cardiac surgery including a congenital heart ward, congenital operation theatre and CHICU. A minimum of 2 congenital heart operation are done per day.

**Population: -**

Mothers of children who undergoing cardiac surgery in congenital heart ward.

**Sample & sampling technique: -**

The sample of the study constitute of 30 mothers of pediatric cardiac surgery cases. One group received preoperative education (interventional group) other group (control group) did not receive health education. The entire patient who met inclusion criteria was selected.

**Inclusion criteria:**

- All planned surgical pediatric cases.
- Parents who are willing to participate.
- Those who know Malayalam.

**Exclusion criteria:**

Parents who are not willing to participate

Patients who don't know Malayalam.

**Development of data collection tool**

Data collection tool refers to the instrument, which was constructed by the investigator divided the group into control group and experimental group. Planned health education is given to the experimental group prior to surgery. All the parents were informed about pre and postoperative routines by a nurse as per unit protocol. After that the investigator used structured interview schedule to assess both groups post operatively. The tool was prepared by the investigator after extensive review of literature .the tool was examined and content validity was tested by the experts of SCTIMS.A multiple choice questionnaire of 18 questions were prepared based on the literature.

**Description of tools**

The structured interview schedule consisted of mainly 3 sections

Section A, B &C

SectionA: - Deals with demographic data.6 questions included.

SectionB: - consisted of 18 questions regarding parental satisfaction about preoperative visit.

SectionC: - Deals with the functional outcome of child with 5 different data.

**Time &duration of the study**

The duration of the study was 3 months. (1/8/2009-31/10/2009). Data collected at the period of one month (September to October). The time schedule for data collection for each parent was maximum 30minutes at the day before discharge.

**Research tool and techniques**.

In this study, a self-prepared questionnaire was used to assess parent's satisfaction about preoperative visit by ICU nurse.

**Ethical clearance:**

- Formal permission from head of the department.
- Consent from mothers.

**Data collection process:**

Data were collected from mothers of child undergoing cardiac surgery .A planned preoperative education is given to experimental group regarding various aspects of preoperative preparation on the day before surgery & on the day of surgery, ICU care& hospital routines. Both groups were interviewed postoperatively with the

aid of self-prepaid 18 questions. These 18 questions subdivided in to 3 groups to assess the satisfaction of mothers regarding the care in ICU (7 questions-16, 17,18,20,21,22,23), explanation to preoperative preparation (7 questions-8, 9,10,11,12,,14,15) and behavior and attitude of the nurse(4 questions-7,13,19,24). For each question have 3 options [no satisfaction (1mark), intermediate satisfaction (2mark), high satisfaction (3mark)].

**Pilot study**

After obtaining consent from authorities a pilot study was conducted on 5 patients, to establish the reliability& validity of the tool to test the feasibility& practicability of whole research design. The period of study was 5 day.( 22/9/2009to 24/9/2009).

**Plan of analysis:**

The researcher decided to analyze the data in terms of frequency& percentages and to present them in forms of tables , diagrams & bar diagram.

**Summary**

This chapter deals with the introduction, research design, setting of the study, population, sample &sampling techniques, time &duration of the study, development of data collection tool, pilot study, data collection process, &plan of analysis.

# CHAPTER I V

# ANALYSIS AND INTERPRETATION OF DATA

## INTRODUCTION

This chapter presents the analysis and interpretation of data collected from mothers of child who undergone congenital cardiac surgery in CHICU.

Analysis is a process of organizing and synthesizing data in such a way that research question can be answered. The overall aim of analysis is to organize, provide structure to and elicit meaning from research data. Interpretation refers to the process of making sense of the results and examining the implications of the findings with in a broader context.

The findings of the study were arranged and analyzed under the following section.

Section A: - distribution of children according to the demographic data.

Section B: -distribution of sample according to the level of satisfaction.

Section C: - distribution of children according to the functional outcome of the child.

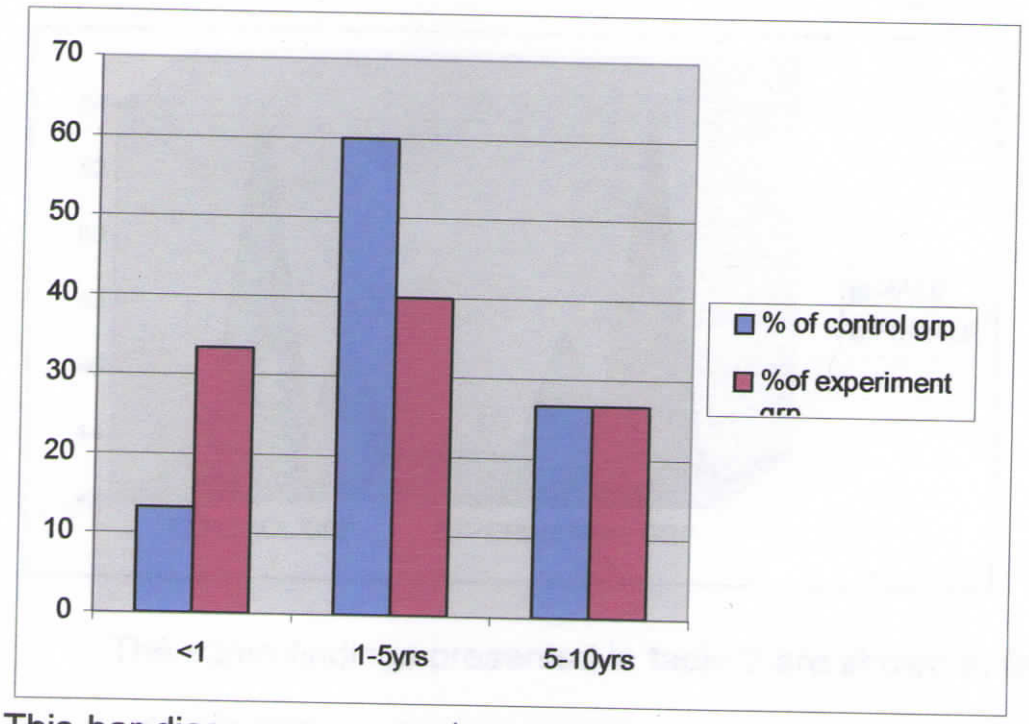
SECTION-A

## Demographic Data

Table-1

**Distribution of sample according to the age group of child**

| Age of the child Yrs | Control group N (%) | Experimental group N (%) |
|---|---|---|
| <1 | 2(13.33%) | 5(33.33%) |
| 1-5 | 9(60%) | 6(40%) |
| 5-10 | 4(26.66%) | 4(26.66%) |
| TOTAL | 15(99.99%) | 15(99.99%) |

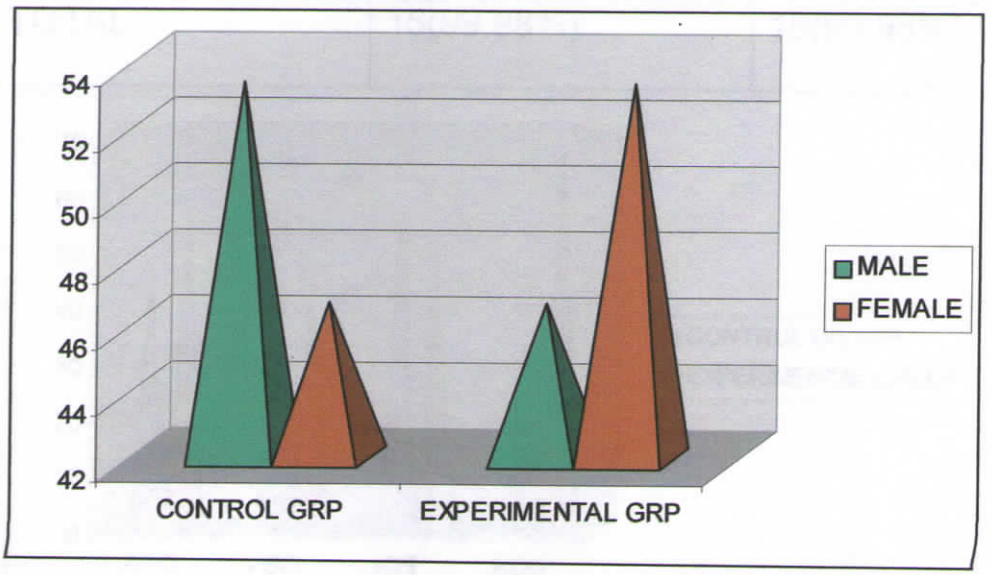



This bar diagram represents percentage in "X" axis and age in "Y" axis. From above data in experimental group 40% of child was 1-5 yrs of age & 60% of child in control group was1-5yrs.In experimental group Mean is 2.615, Mode is Bimodal, 6,2, Median is 2,and Standard deviation is 2.213. IN control group Mean is 3.745,Mode is 2,Median3, and Standard deviation is 2.588

**Distribution of sample according to sex of child**

Table-2

| Sex | Control group N (%) | Experimental group N (%) |
|---|---|---|
| Male | 8(53.33%) | 7(46.66%) |
| Female | 7(46.66%) | 8(53.33%) |
| Total | 15(99.99%) | 15(99.99%) |

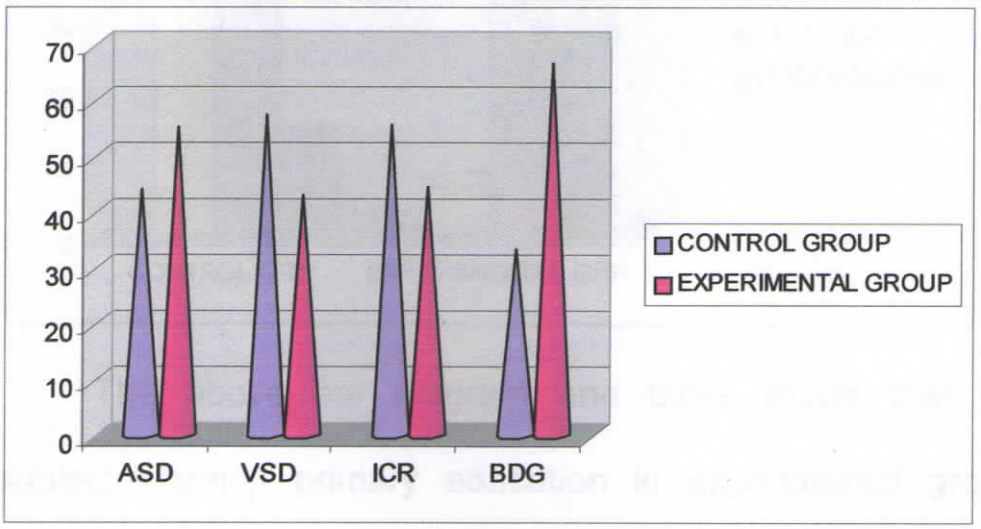



The same findings presented in table 2 are shown in figure 2 as bar diagram. The above table and figure shows that most of the children in control group are male and in experimental group most are female.

**Distribution of sample according to the type of surgery**

Table-3

| Type of surgery | Control group N (%) | Experimental group N (%) |
|---|---|---|
| ASD | 4(26.66%) | 5(33.33%) |
| VSD | 5(33.33%) | 4(26.66%) |
| ICR | 5(33.33%) | 4(26.66%) |
| BDG | 1(6.66%) | 2(13.33%) |
| TOTAL | 15(99.98%) | 15(99.98%) |

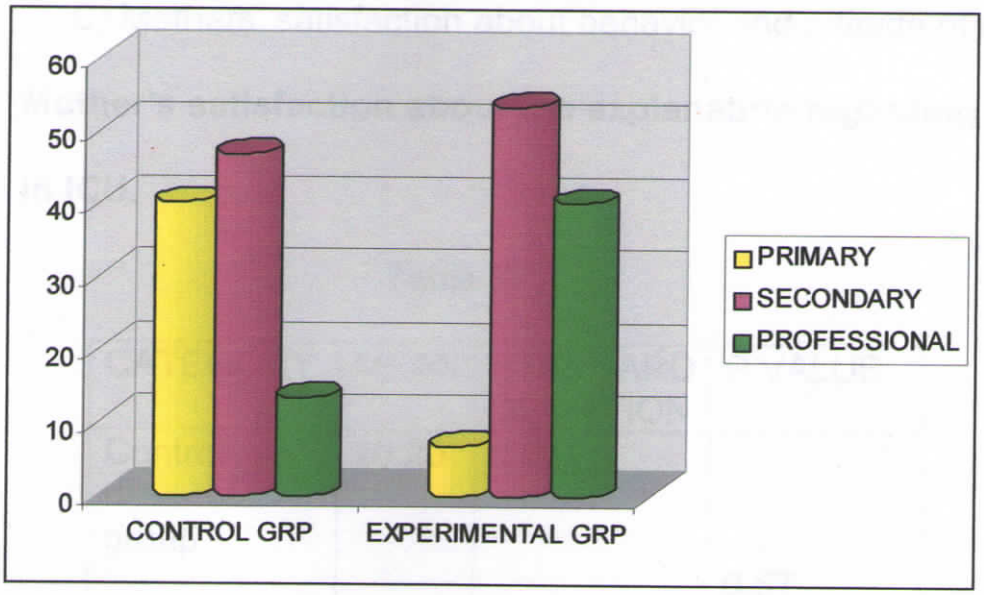



The above bar diagram "X" axis represents type of surgery and the "Y" axis represents its percentage. Here in experimental group and in control group samples are randomly distributed.

**Distribution of sample according to the educational status of mothers**

Table-4

| Education | Control group N (%) | Experimental group N (%) |
|---|---|---|
| Primary | 6(40%) | 1(6.66%) |
| Higher Secondary | 7(46.66%) | 8(53.33%) |
| Professional | 2(13.33%) | 6(40%) |
| Total | 15(99.99%) | 15(99.99%) |




The above bar diagram and table shows that 40% of subjects having primary education in experimental group and 6.66% having primary education in control group. In the aspect of professional education experimental group having 13.33% and in control group it is 40%. But in secondary education having not much variation.

## SECTION-B

**Distribution of sample according to the level of satisfaction of mothers.**

A) Mothers' satisfaction about the explanation regarding the care in ICU.

B) Mothers' satisfaction about the explanation to preoperative preparation.

C) Mothers' satisfaction about behavior and attitude of nurses

**Mother's satisfaction about the explanation regarding the care in ICU.**

Table -5

| CATEGORY | MEAN | STANDARD DEVIATION | P VALUE |
|---|---|---|---|
| Control group | 20.20 | 0.941 | 0.57 |
| Experimental group | 20.40 | 0.99 | |

This table shows Mothers satisfaction about the explanation regarding intensive care unit and is range from18-21 in experimental group and control group with a mean satisfaction of 20.20 in control group and 20.40 in experimental group. There was no significance difference (p value is 0.57) between the mean scores of experimental group and control group.

**Mother's satisfaction about the explanation to preoperative preparation.**

Table -6

| CATEGORY | MEAN | STANDARD DEVIATION | P VALUE |
|---|---|---|---|
| Control group | 20.66 | O.72 | 0.08 |
| Experimental group | 21 | 0 | |

This table shows Mothers satisfaction about the explanation to preoperative preparation and is range from 19-21 in control group and 21in experimental group with a mean of20.66 in control group and21in experimental group. Here there was no significant difference in satisfaction about the explanation to preoperative preparation in between the experimental group and control group.

**Mother's satisfaction about behavior and attitude of nurses**

Table-7

| CATEGORY | MEAN | STANDARD DEVIATION | P VALUE |
|---|---|---|---|
| Control group | 11.53 | 0.64 | 0.79 |
| Experimental group | 11.60 | 0.737 | |

This table shows mothers satisfaction about behavior and attitude of nurse and is range from 10-12 in control group and in experimental group with a mean of11.60 in control group and11.53 in experimental group. In this the p value is 0.79, there was no significance Difference between the experimental group and control group.

**Comparison of parental satisfaction by experimental group &control group.**

Table-8

| PARENTAL SATISFACTION | MEAN | STANDARD DEVIATION | PVALUE |
|---|---|---|---|
| Control group | 52.4 | 1.55 | |
| Experimental group | 53 | 1.65 | 0.31 |

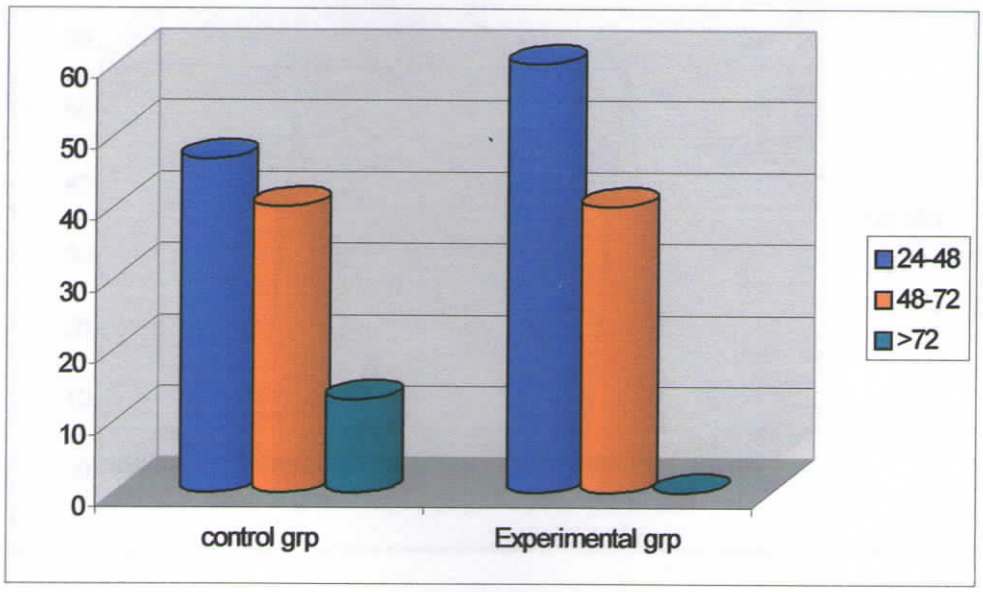
This table shows total parental satisfaction by experimental group &control group and is range from 50-54 in control group and 49-54 in experimental group with a mean of 52.4 in control group and 53 in experimental group. In the aspect of total satisfaction regarding the preoperative visit in between the experimental group and control group there is no significance, the p value is 0.31.

## SECTION-C

**Distribution of sample according to the functional outcome of the child**

Table-9

| Child started ambulating within hrs | Control group N (%) | Experimental group N(%) |
|---|---|---|
| 24-48 | 7(46.66%) | 9(60%) |
| 48-72 | 6(40%) | 6(40%) |
| >72 | 2(13%) | 0 |
| Total | 15(99.66%) | 15(100%) |

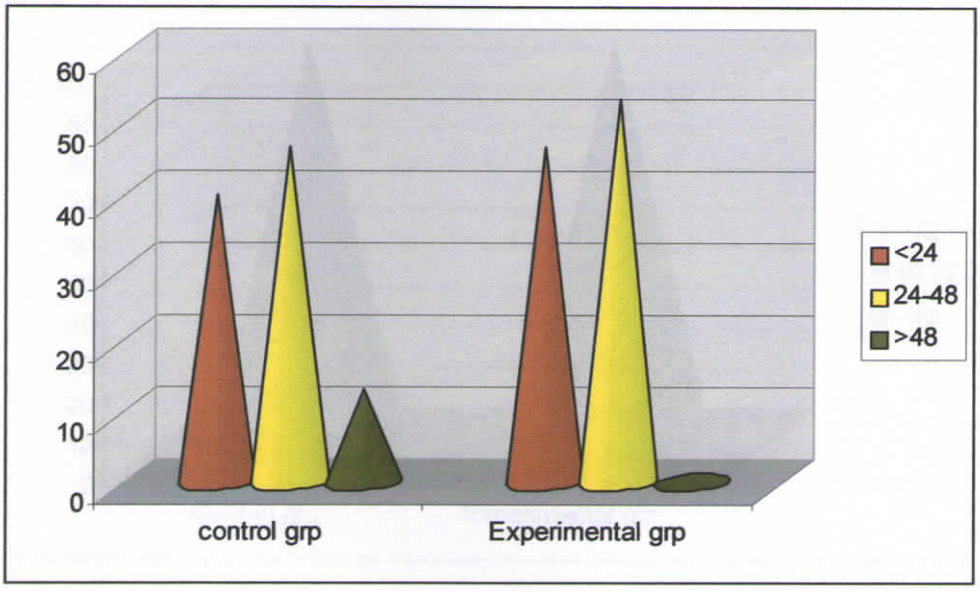



This table and figure shows that in control group and in experimental group 46.66%and 60% were start ambulation within 24-48hrs respectively. In both group 40% of child started ambulation within 48-72hrs. >72hrs were only a few numbers.

**Distribution of sample according to the functional outcome of the child**

Table-10

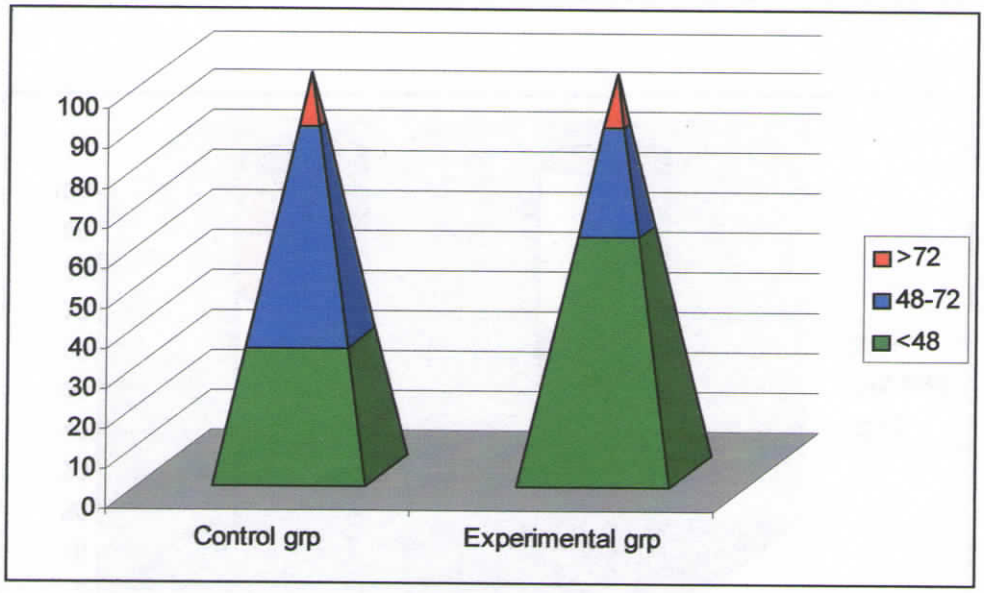
| Child taking oral feeds within hrs | Control group N (%) | Experimental group N (%) |
|---|---|---|
| <24 | 6(40%) | 7(46.66%) |
| 24-48 | 7(46.66%) | 8(53.33%) |
| >48 | 2(13%) | 0 |
| Total | 15(99.66%) | 15(99.99%) |




This table and figure shows that 40%and 46.66% were take oral feeds within 24 hrs in control group and experimental group respectively. 46.66%and 53.33% in control group and experimental group respectively took oral feeds within 24-48hrs.few child took oral feeds >48hrs in experimental group.

Table-11

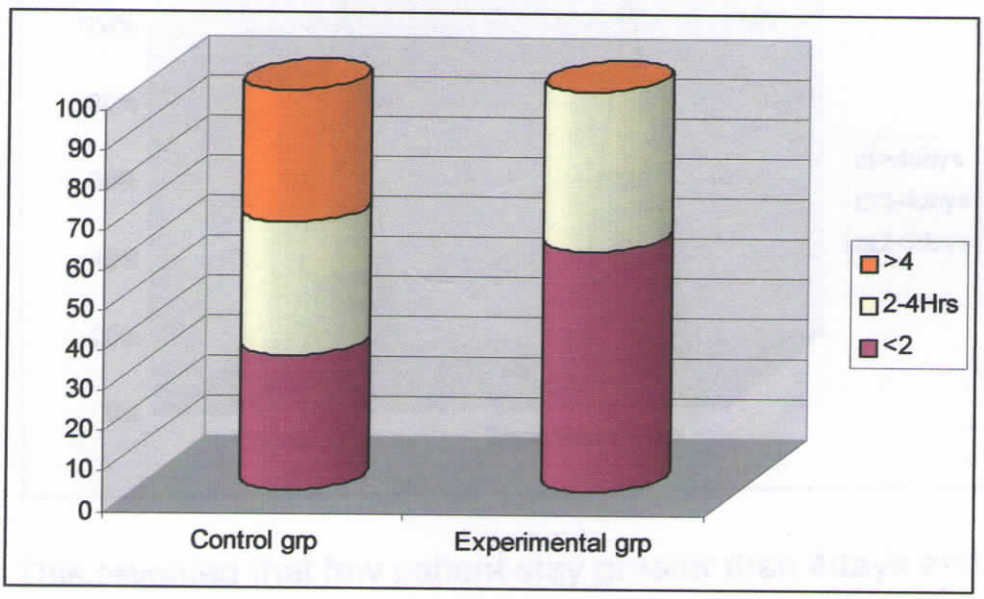
| Child passed motion within | Control group N (%) | Experimental group N (%) |
|---|---|---|
| <48 | 5(33.33%) | 9(60%) |
| 48-72 | 8(53.33%) | 4(26.66%) |
| >72 | 2(13%) | 2(13%) |
| Total | 15((99.66%) | 15(99.66%) |




In this table and figure represent much of the experimental group (60%) were passed motion < 48hrs. but in control group about 53.33% child were pass motion within 48-72hrs.

Table-12

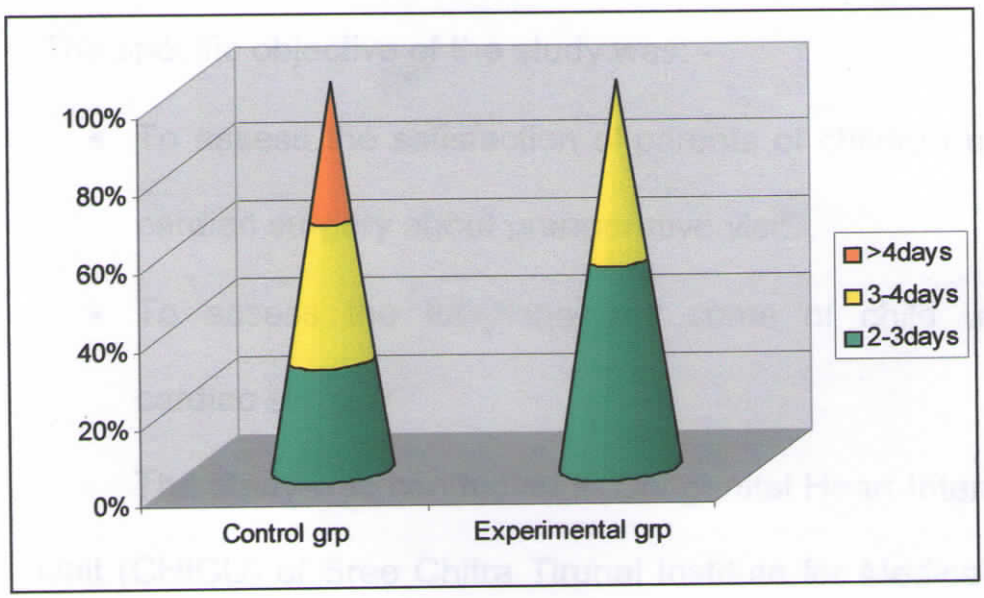
| Child passed urine after removal of indwelling catheter in hrs | Control group N (%) | Experimental group N (%) |
|---|---|---|
| <2 | 5(33.33%) | 9(60%) |
| 2-4 | 5(33.33%) | 6(40%) |
| >4 | 5(33.33%) | 0 |
| Total | 15(99.99%) | 15(100%) |




This table and figure revealed that in control group 33.33% child pass urine after removal of indwelling catheter in <2hrs,2-4hrs and >4hrs equally. In experimental group 60% of child pass urine <2hrs.

Table-13

| Length of ICU stay (days) | Control group N (%) | Experimental group N (%) |
|---|---|---|
| 2-3 | 5. (33.33%) | 8(53.33%) |
| 3-4 | 5(33.33%) | 7(46.66%) |
| >4 | 5(33.33%) | 0 |
| Total | 15(99.99%) | 15(99.99%) |




This revealed that few patient stay greater than 4days and 53.33% stay in ICU within2-3 days in experimental group. In control group 33.33% equally stayed within 2days3-4days and >4days.

# CHAPTER -V

# SUMMARY, CONCLUSION, DISCUSSION, LIMITATIONS, RECOMMENDATIONS.

This chapter gives a brief account of the preset study including conclusions drawn from the findings and possible applications of the result, recommendations for future research and suggestions for improving the present study is also included.

## SUMMARY

The specific objective of the study was: -

- To assess the satisfaction of parents of children undergoing cardiac surgery about preoperative visit.
- To assess the functional out come of child undergoing cardiac surgery

The study was conducted in Congenital Heart Intensive Care Unit (CHICU) of Sree Chitra Tirunal Institute for Medical sciences and Technology. Study populations consist of 30 mothers of children admitted in the CHICU. Data were collected from parents of child undergoing surgery .A planned preoperative education is given to experimental group. Both groups were interviewed postoperatively with the aid of self prepaid 24questions based

upon various aspects of preoperative preparation on the day before surgery & on the day of surgery, ICU care& hospital routines.

The data were analyzed using appropriate statistical test and by p values assess the effectiveness of the intervention.

**The major findings of the study: -**

The study revealed that there was no significance Difference in the parental satisfaction about preoperative visit in between the experimental group and control group. However present study had many limitations, only 30 parents were included so that we are not able to emphasize on this findings. In different aspects of preoperative visit including Mothers satisfaction about the explanation regarding intensive care unit, the explanation to preoperative preparation and in the aspect of satisfaction about behavior and attitude of nurses also can't found any significance difference in between experimental group and control group.

**Discussion**

There were many studies undertaken to assess the parental &patients' satisfaction about preoperative education. Daykin et al., (2003) conducted a study to detect the importance of preoperative visit for critical care patient. Over 98 per cent of the patients said that the information they received during the visits was useful.

Heppner et al., (2004) conducted a study about patient satisfaction with preoperative assessment. The authors concluded that the preoperative visit has a significant impact on patient satisfaction, with information and communication versus the total amount of time spent being the most positive and negative components, respectively. From the above studies they concluded that preoperative education is very beneficial to patients and it increase the satisfaction level.

**Limitations**

- Study was limited to the SCTIMST, Trivandrum.
- Parents who are not willing to participate in this study not included.
- Parents of child with emergency cases avoided.
- Only Malayalam speaking parents were included in this study.
- The sample size was limited to15 in each group.

**Recommendations**

- Preoperative nursing visit by ICU nurse should become a routine procedure to pediatric surgical ward.
- Using a large sample size can do the same study

- Same study can be done in another ICU or in another institution.
- Using modified questionnaire& educational material can do this study.

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# APPENDIX

# സമ്മതപത്രം

കുഞ്ഞിന്റെ ഓപ്പറേഷനു മുൻപ് അമ്മ അറിഞ്ഞിരിക്കേണ്ട വസ്തുതകൾ പറഞ്ഞ് മനസ്സിലാക്കി തരുന്നതിന് അതുമായി ബന്ധപ്പെട്ടുള്ള പ്രതികരണം അറിയാനായി ഒരു ചോദ്യാവലി പൂരിപ്പിച്ചു നൽകുന്നതിനും ഞാൻ പൂർണ്ണമായി സമ്മതിക്കുന്നു. ഇത് ഒരു പഠനത്തിന്റെ ഭാഗമാണ്. ഈ പഠനത്തിനു വേണ്ടി ഞാൻ സഹകരിച്ചു കൊള്ളുന്നു.

എന്ന്

മാതാവിന്റെ പേര്

തീയതി

ഒപ്പ്

ഗവേഷകന്റെ ഒപ്പ്

# ഹൃദയശസ്ത്രക്രിയയ്ക്ക് വിധേയരാകാൻ പോകുന്ന കുഞ്ഞുങ്ങളുടെ അമ്മമാർ അറിയേണ്ടുന്ന വസ്തുതകൾ

## ഓപ്പറേഷന്റെ തലേദിവസം

→ കുഞ്ഞുങ്ങളുടെ വാർഡിലാണ് ഇപ്പോൾ നിങ്ങൾ ഉള്ളത്. ഓപ്പറേഷനു വേണ്ട രക്ത പരിശോധനകളും Echo test, Xray,ഉയരവും, വണ്ണവും എല്ലാം മുൻപ് ചെയ്തിട്ടില്ലെങ്കിൽ ഇവിടെ ചെയ്യും.

→ ഇവിടെ കുഞ്ഞിനോടൊപ്പം ബന്ധുക്കളെ ആരേയും നിർത്താൻ അനുവദിക്കില്ല. വൈകിട്ട് 4 മണിമുതൽ 6 മണി വരെയാണ് സന്ദർശന സമയം . ആ സമയത്ത് മാത്രം പാസ് ഉള്ള രണ്ട് പേർക്ക് കുഞ്ഞിനെ കാണാം.

→ ഓപ്പറേഷന്റെ തലേദിവസം വൈകിട്ട് ഡോക്ടർ ഓപറേഷന്റെ നല്ലവശങ്ങളും ദൂഷ്യവശങ്ങളും വിവരിച്ച് നിങ്ങളെ കൊണ്ട് സമ്മതപത്രം ഒപ്പിട്ട് വാങ്ങും.

→ ഓപ്പറേഷന് കുഞ്ഞിന് രക്തം നൽകേണ്ടതായി വരും. അതുകൊണ്ട് രക്ത ബാങ്കിൽ ആവശ്യാനുസരണം ഉണ്ടെന്ന് ഉറപ്പുവരുത്തുന്നതിനായി **Okay Slip** വാങ്ങേണ്ടതാണ്.

→ കുഞ്ഞിന് ആശുപത്രിയിലെ വസ്ത്രങ്ങൾ മാത്രമേ ധരിക്കാൻ പാടുള്ളൂ. അവർക്ക് ആവശ്യമായ എല്ലാ ആഹാരസാധനങ്ങളും ആശുപത്രിയിൽ

നിന്നാണ് നൽകുന്നത്. പുറത്ത് നിന്നുള്ള ഭക്ഷണം (ഓറഞ്ച് ഒഴിച്ച്) അനുവദിക്കില്ല.

→ ഓപ്പറേഷനു മുൻപുള്ള ദിവസം രാത്രി കുഞ്ഞിന് മിതമായി മാത്രമേ ഭക്ഷണം നൽകുകയുള്ളു.(ബ്രഡ്, ജാം) ഓപ്പറേഷൻ സമയത്ത് ഛർദ്ധി ഉണ്ടായി അത് ശ്വാസ കോശത്തിൽ എത്തുന്നത് തടയാനാണിത്.

→ തലേദിവസം കുഞ്ഞിനെ നന്നായി ബീറ്റാഡിൻ എന്ന മരുന്ന് ദേഹത്ത് തേയ്ച്ച് കുളിപ്പിക്കണം. അണുബാധകുറയ്ക്കാനാണിത്.

ഓപ്പറേഷന്റെ ദിവസം

→ രാവിലെ കുഞ്ഞിനെ വീണ്ടും മരുന്ന് ഉപയോഗിച്ച് കുളിപ്പച്ചതിനുശേഷം മരുന്ന് നെഞ്ചിൽ പുരട്ടി ഒരു തുണി കൊണ്ട് കെട്ടി വയ്ക്കും.

→ ആന്റിബയോട്ടിക് മരുന്നിനോട് അലർജി ഉണ്ടോ എന്നറിയാൻ ടെസ്റ്റ് ഡോസ് മരുന്ന് കൈയ്യിൽ കുത്തിവയ്ക്കും.

→ ഓപ്പറേഷൻ തീയറ്ററിൽ എത്തിയാലുടൻ തന്നെ മയങ്ങാനുള്ള മരുന്ന് നൽകും. പിന്നീട് കുഞ്ഞ് ഒന്നും തന്നെ അറിയില്ല.

## തീവ്രപരിചരണ വിഭാഗത്തിൽ

→ വെന്റിലേറ്റർ എന്ന ജീവൻ രക്ഷാഉപകരണത്തോടു കൂടിയാണ് ഇവിടെ കൊണ്ട് വരുന്നത്. വെന്റിലേറ്ററിൽ നിന്ന് 5-6 മണിക്കൂർ കഴിയുമ്പോൾ സാധാരണ മാറ്റും. അതിന് ശേഷമേ ഒരാൾക്കെങ്കിലും കുഞ്ഞിനെ കാണാനുള്ള അനുവാദമുള്ളൂ. തീവ്രപരിചരണ വിഭാഗത്തിൽ കൊണ്ട് വന്നയുടനെ തന്നെ ഡോക്ടർ കുഞ്ഞിന്റെ വിശേഷങ്ങൾ നിങ്ങൾക്ക് പറഞ്ഞ് തരുന്നതായിരിക്കും.

→ കുഞ്ഞിനു വേണ്ടുന്ന മരുന്നുകളും ഡ്രിപ്പുകളും നൽകാനായി ദേഹത്ത് സൂചികൾ കുത്താറുണ്ട്. വെന്റിലേറ്ററിലായിരിക്കുമ്പോൾ സാധാരണ ആഹാരം കൊടുക്കാറില്ല. എന്നാൽ കൂടുതൽ നാൾ ഈ ഉപകരണത്തിന്റെ സഹായം വേണമെങ്കിൽ മാത്രം മൂക്കിൽ കൂടെ ട്യൂബിട്ട് ദ്രാവകരൂപത്തിലുള്ള ആഹാരം കൊടുക്കും.

→ മുലയൂട്ടുന്ന അമ്മമാർ മുലപ്പാൽ കുഞ്ഞിന് ആവശ്യാനുസരണം എടുത്ത് നൽകണം. വെന്റിലേറ്ററിൽ നിന്ന് മാറ്റി 6 മണിക്കൂറിനു ശേഷം ആഹാരം നൽകും.

→ ഓപ്പറേഷന്റെ അന്നേദിവസം രാത്രി 8 മണിക്ക് കുഞ്ഞിന്റെ അവസ്ഥയെ കുറിച്ച് ഡോക്ടർ വിശദീകരണം നൽകുന്നതായിരിക്കും. അടുത്ത ദിവസങ്ങളിൽ 4-6 മണിവരെയുള്ള സമയത്ത് സാധാരണ പാസിൽ നിങ്ങൾക്ക്

തീവ്ര പരിചരണം വിഭാഗത്തിന് പുറത്തിരിക്കാം. ഡോക്ടർ വിശേഷം എന്തെങ്കിലും ഉണ്ടെങ്കിൽ നിങ്ങളെ അറിയിക്കും.

→ ഓപ്പറേഷന്റെ തലേദിവസം തന്നെ നിങ്ങൾക്ക് പ്രത്യേക പാസ് അനുവദിക്കും അതുണ്ടെങ്കിൽ മാത്രമേ ഓപ്പറേഷന്റെ ദിവസം രാവിലെ വാർഡിലേയ്ക്ക് കയറ്റി വിടുകയുള്ളൂ. ഓപ്പറേഷനു ശേഷം വൈകിട്ട് സന്ദർശന സമയത്ത് വരുന്നതിന് സാധാരണ പാസ് മതി. മുലയൂട്ടുന്ന അമ്മമാർക്ക് എപ്പോഴും വരാനായി പ്രത്യേകപാസ് അനുവദിക്കും. ഈ സമയങ്ങളിൽ അല്ലാതെ നിങ്ങളെ ആവശ്യമുണ്ടെങ്കിൽ നിങ്ങൾ നൽകിയിട്ടുള്ള വിശ്രമ സങ്കേതത്തിന്റെ നമ്പറിലോ മൊബൈലിലോ വിളിക്കും. ആശുപത്രിയുടെ 5 മീറ്റർ ചുറ്റളവിൽ നിങ്ങൾ എപ്പോഴും ഉണ്ടാകണം.

→ കുഞ്ഞ് ആരോഗ്യസ്ഥിതി വീണ്ടെടുക്കുന്നതിനനുസരിച്ച് സാധാരണ 3–4 ദിവസത്തിനുള്ളിൽ ട്യൂബുകൾ പലതും മാറ്റിയതിനുശേഷം വാർഡിലേക്ക് അയയ്ക്കും.

→ വാർഡിൽ ഡിസ്ചാർജ്ജിനു മുൻപ് ECHO പോലുള്ള ടെസ്റ്റുകൾ ചെയ്യും. കുഞ്ഞിന്റെ ആരോഗ്യസ്ഥിതി അനുസരിച്ചായിരിക്കും ഡിസ്ചാർജ്ജ്. ആ സമയത്ത് തന്നെ കുഞ്ഞിനു തുടർന്ന് കഴിക്കേണ്ടുന്ന മരുന്നിന്റെ വിവരങ്ങൾ വിശ്രമം ആഹാരം എല്ലാം പറഞ്ഞ് തരും.

തീവ്രപരിചരണ വിഭാഗത്തിലെ നേഴ്സിന്റെ ഓപ്പറേഷനുമുൻപുള്ള സന്ദർശനത്തെ കുറിച്ചുള്ള മാതാപിതാക്കളുടെ സംതൃപ്തി അറിയാനുള്ള ചോദ്യാവലി

1. താങ്കളുടെ പേര്
2. വിദ്യാഭ്യാസ യോഗ്യത
3. കുഞ്ഞിന്റെ പേര്
4. കുഞ്ഞിന്റെ പ്രായം
5. കുഞ്ഞിനു ചെയ്ത ഓപ്പറേഷൻ
6. കുഞ്ഞ് തീവ്ര പരിചരണ വിഭാഗത്തിൽ കിടന്ന ദിവസങ്ങളുടെ എണ്ണം

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| 7. | നിങ്ങൾക്ക് നേഴ്സുമായി നല്ല ബന്ധം സ്ഥാപിക്കുവാൻ സാധിച്ചിട്ടുണ്ടോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 8. | ഓപ്പറേഷനു മുൻപ് സമ്മതപത്രം ഒപ്പിട്ട് നൽകേണ്ടതിന്റെ ആവശ്യകതയെകുറിച്ച് വിശദീകരണം ലഭിച്ചിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 9. | രക്തബാങ്കിൽ ആവശ്യാനുസരണം രക്തം തയ്യാറാക്കി വയ്ക്കേണ്ടതിന്റെ ആവശ്യകതയെകുറിച്ച് അറിയാമായിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 10. | കുഞ്ഞിന്റെ ഓപ്പറേഷനുമുൻപ് നൽകിയ വിവരങ്ങളിൽ തൃപ്തരാണോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 11. | ഓപ്പറേഷന്റെ തലേദിവസം രാത്രി 10 മണിയ്ക്ക് ശേഷം ആഹാരവും വെള്ളവും കൊടുക്കാറില്ല എന്നുള്ള കാര്യം മനസ്സിലാക്കി തന്നിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 12. | ഓപ്പറേഷനു മുമ്പ് നൽകിയിട്ടുള്ള വിശദീകരണങ്ങൾ നിങ്ങളുടെ മാനസിക സമ്മർദ്ദം കുറയ്ക്കാൻ സഹായകമായി എന്നു തോന്നുണ്ടോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 13. | നിങ്ങളുടെ പ്രശ്നങ്ങളും സംശയങ്ങളും ശ്രദ്ധിച്ചു കേൾക്കുന്നതിൽ നേഴ്സുമാർ വേണ്ടത്ര താൽപര്യം കാണിച്ചിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 14. | കൂട്ടിരിപ്പുകാരെ ഈ ആശുപത്രിയ്ക്കുള്ളിൽ സ്ഥിരം നിൽക്കാൻ അനുവദിക്കില്ല എന്ന് അറിയാമായിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 15. | പാസുകളെകുറിച്ചും അവ സൂക്ഷിക്കേണ്ടതിന്റെ ആവശ്യകതയെകുറിച്ചും അറിവ് ലഭിച്ചിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |

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| 16. | ഓപ്പറേഷനുശേഷം തീവ്രപരിചരണ വിഭാഗത്തിൽ കുഞ്ഞിനോടൊപ്പം കൂട്ടിരുപ്പുകാരെ അനുവദിക്കില്ല എന്ന അറിവ് ലഭിച്ചുരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 17. | തീവ്ര പരിചരണ വിഭാഗത്തിലെ സന്ദർശന സമയത്തെ കുറിച്ച് നിങ്ങൾക്ക് ആവശ്യമായ വിവരം ലഭിച്ചിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 18. | ഓപ്പറേഷനു മുൻപ് തീവ്രപരിചരണ വിഭാഗത്തിലെ നേഴ്സുമാർ നിങ്ങളെ കാണുന്നത് നല്ലതാണ് എന്ന അഭിപ്രായത്തോട് യോജിക്കുന്നുണ്ടോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 19. | ഉണ്ടെങ്കിൽ ആ നേഴിസിന്റെ സാന്നിദ്ധ്യം ഓപ്പറേഷനുശേഷം കുഞ്ഞിനോടൊപ്പം കാണുന്നത് ആശ്വാസം നൽകുമോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 20. | വെന്റിലേറ്റർ എന്ന ജീവൻ രക്ഷാ ഉപകരണവുമായി കുഞ്ഞിനെ ബന്ധപ്പിക്കുന്നതിന്റെ ആവശ്യകതയെ കുറിച്ച് അറിവ് ലഭിച്ചിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 21. | വെന്റിലേറ്ററിൽ നിന്ന് മാറ്റിയതിനുശേഷം ഒരാൾക്ക് കുഞ്ഞിനെ കാണാൻ അനുവാദം നൽകും എന്നറിയാമായിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 22. | മുലയൂട്ടുന്ന അമ്മമാർ മുലപാൽ കുഞ്ഞിന് ആവശ്യാനുസരണം എടുത്ത് നൽകേണ്ടതിന്റെ ആവശ്യകതയെ കുറിച്ച് അറിവ് ലഭിച്ചിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 23. | കുഞ്ഞിനുവേണ്ടുന്ന ആഹാരം തീവ്രപരിചരണ വിഭാഗത്തിൽ നൽകാറുണ്ടെന്ന് അറിയാമായിരുന്നോ? | ഒട്ടും തന്നെയില്ല | കുറെയൊക്കെ | വളരെയേറെ |
| 24. | നേഴ്സുമാരിൽ നിന്ന് നിങ്ങൾക്കു ലഭിച്ച പൊതുവായ സേവനത്തിന്റെ മേൻമ എങ്ങനെ വിലയിരുത്തുന്നു? | വളരെ മോശം | തരക്കേടില്ല | മെച്ചപ്പെട്ടത്. |
| 25. | നിങ്ങളുടെ അഭിപ്രായങ്ങളും നിർദ്ദേശങ്ങളും | | | |

Recovery parameters to assess the functional out come of child undergoing cardiac surgery.

A) The child started ambulating

(24-48hrs, 48-72hrs, >72hyrs)

B) Child taking oral feeds

(Within 24hrs, 24-48hrs, after48hrs)

C) The child passed motion

(Within 48hrs, 48-72hrs, >72hyrs)

D) The child passed urine after removal of indwelling catheter.

(Within 2hrs, 2-4hrs, after4hrs)

E) Discharge from icu

(2-3days, 3-4days, >4da

## Preoperative education for mothers of children undergoing congenital cardiac surgery.

**On the day before surgery**

- You are in children's ward. If pre surgical test(blood test, ECG,X-ray) are not done earlier will be done prior to surgery.
- In this hospital the bystanders are not allowed to stay with the child, the visiting time is 4pm to 6pmand only 2persons will be permitted to be with the child, for which a pass will be given to you.
- The day before surgery consent will be taken. The doctor will explain the merits and demerits of the surgery.
- During surgery there will be need of blood. so the blood should be kept ready in the blood bank and should get okay slip from them.
- In this hospital dresses and food will be provided to the child. The outside food &dress except orange is not allowed.
- Night time only light meal will be given before 10pm.It helps to prevent aspiration during surgery.

- The day before surgery evening betadine bath will be given to child to prevent infection.

**Day of surgery**

- In the morning betadine bath will be given. And a sterile dressing will be applied over the site of surgery.
- An antibiotic test will be given to check any allergic reaction.
- In operation theatre anesthetic agents will be given to sedate the child after that the child won't be experience any pain.

**In intensive care unit**

- In ICU the child will be in ventilatory support. Normally after 5-6hrs the anesthetists will be extubate the child. Only one person will be allowed to see the child in ICU after extubation. The doctor will tell about the condition of the child.

- The child will have many cannulas and tubes in his body for giving fluids and medicines.
- The breast-feeding mother should give expressed milk to feed the child after 6hrs of extubation.

- On the same day of surgery at 8pm the doctor will explain about the condition of the child &the next day during 4pm to 6pm with usual pass you can wait outside the ICU. If any information is there the doctor will tell you.
- Usually within 3-4days may shift to ward, depends on his prognosis.
- Before planning discharge ECHO test will be done .The nurse will give the discharge advice about home care, medicines, rest & foods.