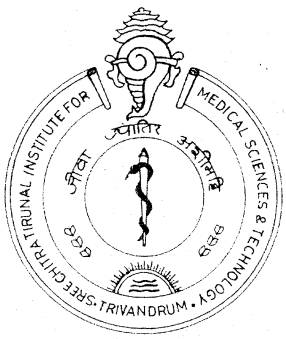
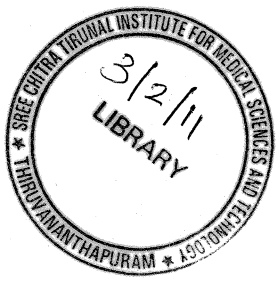
A STUDY TO ASSESS THE EFFECT OF GROUP TEACHING ON KNOWLEDGE ABOUT HOME CARE AMONG MOTHERS OF CHILDREN AFTER CONGENITAL HEART SURGERY





PROJECT REPORT

Submitted in partial fulfillment of the requirements for the Diploma in Cardiovascular and Thoracic Nursing

By

REMYA R.S

CODE NO : 6076

SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCES AND TECHNOLOGY

TRIVANDRUM

2010

CERTIFICATE FROM SUPERVISORY GUIDE

This is certify that **Mrs.Remya R.S** has completed the project work on `*A study to assess the effect of group teaching on knowledge about home care among mothers of children after congenital heart surgery'*, under my direct supervision 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 report has been included in any other thesis for processing any other degree by the candidate.

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November 2010.

CERTIFICATE FROM THE CANDIDATE

This is certify that the project on ***'A study to assess the effect of group teaching on knowledge about home care among mothers of children after congenital heart surgery',*** is a genuine work done by me under the guidance of Dr. Saramma .P.P, M.N, PhD, Senior Lecturer in Nursing, SCTIMST, Trivandrum. It is also certified that this work has not been presented previously to any other university for award of degree, diploma or other recognition.

Mrs. Remya.R.S,
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Trivandrum,
November 2010.

APPROVAL SHEET

This is to certify that **Mrs. REMYA R.S,** bearing code no :6076, has been admitted to Diploma in Cardiovascular and Thoracic Nursing , January 2010 and she has undertaken the project entitled, ***'A study to assess the effect of group teaching on knowledge about home care among mothers of children after congenital heart surgery',*** which is approved for the Diploma in Cardiovascular and Thoracic Nursing , awarded by Sree Chitra Tirunal Institute for Medical Sciences and Technology, Trivandrum as it is found satisfactory.

EXAMINERS

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(2)----------

GUIDE

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Date:

Place: Trivandrum

AKNOWLEDGEMENT

Investigator owes sincere thanks to God Almighty, who accompanied and directed her to achieve success throughout this study.

The present study has been completed under the expert guidance of Dr.Saramma.P.P, Senior Lecturer in Nursing, SCTIMST, Trivandrum. Investigator expresses her sincere gratitude to Dr.Saramma.P.P, for the valuable guidance, constant support and encouragement given from the inception to the completion of the study.

The researcher expresses her sincere thanks to Dr.A.V.George, Registrar, SCTIMST, Trivandrum, for giving this opportunity for conducting this study.

The researcher greatly values the favor extended by Prof. Syam Krishnan , Head of the Department of Pediatric Cardiac Surgery, SCTIMST, Trivandrum, and all ward sisters of CHW, for which she is extremely grateful.

Investigator would also like to acknowledge the contribution of all participants who kindly agreed to take part in the study. They generously gave their time and attention to the research. This study would have been impossible without such generosity.

She wishes to extend her sincere thanks to all the doctors, nursing staff of department of Pediatric Cardiac Surgery, for their timely help.

The researcher inscribes her sincere thanks to all friends, who were helpful directly and indirectly for the successful completion of this study.

She remains ever indebted to her beloved parents for their unconditional love, prayerful support and constant encouragement in her life.

ABSTRACT

A study to assess the effect of group teaching on knowledge about home care among mothers of children after congenital heart surgery.

Background: A congenital heart defect (CHD) is a defect in the structure of the heart and great vessels, which is present at birth. Surgery for congenital heart defects is performed to repair a defect, providing improved blood flow to the pulmonary and systemic circulations and better oxygen delivery to the body. The outcome of children after congenital heart surgery depends on the child's condition, the type of defect, and the type of surgery performed and how to care the baby in home after discharge. The early and adequate discharge planning and education of mothers will help to ensure optimal recovery of their children. **Objective:** (1) To assess the effect of knowledge level of mothers about home care of their children after congenital heart surgery. (2) To assess the relationship between knowledge of mothers about home care and selected variables. **Method:** It was a true experimental study; a randomized trial was done among forty mothers whose children have undergone congenital heart surgery. Twenty mothers each in control group and experimental group (who have got group health education), were given pre-test on the day of admission and post-test on the day of discharge. A

structured questionnaire was used to assess the knowledge of the mothers. **Result:** The data were analyzed using Epi info 3.5.1. This study revealed that there is a statistically significant difference in the mean knowledge score of intervention group in the post-test, and the health education was effective. (P value-0.000). **Conclusion:** Appropriate health education is necessary for the patients prior to discharge from the hospital in order to attain benefit from surgery.

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ABBREVIATIONS

CHD	Congenital Heart Surgery
VSD	Ventricular Septal Defect
TOF	Tetralogy of Fallot
TGA	Transposition of Great Arteries
CPB	Cardio Pulmonary Bypass
ICU	Intensive Care Unit
PKU	Phenylketonuria
AHA	American Heart Association
ASD	Atrial Septal Defect
AS	Aortic Stenosis
PS	Pulmonary Stenosis
CoA	Coarctation of Aorta
PA	Pulmonary Artery
PDA	Patent Ductus Arteriosus
RVOT	Right Ventricular Outflow Tract

CHICU	Congenital Heart Intensive Care Unit
CHW	Congenital Heart Ward
SCTIMST	Sree Chitra Tirunal Institute f or Medical Sciences and Technology

CHAPTER-1

INTRODUCTION

1.1 Introduction

A congenital heart defect (CHD) is a defect in the structure of the heart and great vessels which is present at birth. In these defects, most of which either obstruct blood flow in the heart or vessels near it, or cause blood to flow through the heart in an abnormal pattern. Heart defects are among the most common birth defects and are the leading cause of birth defect-related deaths. Approximately nine people in 1000 are born with a congenital heart defect(Hoffman, 2002). Some children have no signs while others may exhibit shortness of breath, cyanosis, syncope, heart murmur, under-developing of limbs and muscles, poor feeding or growth, or respiratory infections. Some congenital heart defects require medications, cardiac catheterization or surgery. Surgery is recommended for congenital heart defects that result in a lack of oxygen, a poor quality of life, or when a patient fails to thrive.

Ventricular Septal Defect (VSD), Atrial Septal Defects (ASD), and Tetralogy of Fallot (ToF) are the most common congenital heart defects; less common defects are Truncus arteriosus, and Transposition of the Great Arteries (TGA).

Surgery for congenital heart defects is performed to repair a defect, providing improved blood flow to the pulmonary and systemic circulations and better oxygen delivery to the body. Heart surgery are grouped into two categories; open and closed. Open heart surgery is a surgery in which the surgery is performed on the heart with the use of a Cardio Pulmonary Bypass (CPB) machine. CPB is a technique that temporarily takes over the function of the heart and lungs during surgery, maintaining the circulation of blood and the oxygen content of the body. Closed heart surgery is a minimally invasive procedure in that the CPB machine is not used.

After heart surgery for congenital defects, the patient is shifted to an intensive care unit for continued cardiac monitoring. The patient may also require continued ventilator support. Chest tubes allow blood to be drained from inside the chest as the surgical site heals. Pain medications will be continued, and the patient may remain under general anesthesia. The anesthetist extubate the patient from artificial ventilation when he feels that the patients could breathe themselves. Within two to three days after the surgery, the patient is shifted from ICU to general ward. Nowadays, heart patients are advised to mobilize a bit, in order to prevent complications. Usually, a physical therapist

provides guidance regarding how to move the body, without causing any pain and discomfort.

At the time of discharging the patient from the hospital, the nurses are responsible to educate parents about the home care of their child. If the patient is able to understand, educate them also, because patients with congenital heart disease reported greater perceived stress in comparison to peers (Uzark, 2003). The instructions include, how to care for the incision, how to take shower, how to feed properly, pain relief, what medications can be taken and what activities can be performed. Providing parents with these knowledge and skills to care for their infant requires the concerted effort of a multidisciplinary team who can provide clear, concise, and consistent communication (Pye, 2003). Following these instructions strictly is of utmost importance to ensure quick recovery from the surgery, and avoid all possible complications. Usually, the first phase of heart surgery recovery lasts for about 6 to 8 weeks. During this period, one should be very particular about keeping the incisions dry and clean. For cleaning the area, soap and Luke warm water can be used.

Use of any type of ointments or oils on the incisions, without the permission of physician should be strictly avoided. If the incisions have healed a bit, then quick bathing is allowed. In case of taking a shower, one needs to stand with children back to the shower spray, so as to not soak the sutures in the chest. Avoid extremely hot or cold water for bath. If there is any oozing from the incisions, or the incision look red and feel warm, then inform the health care provider immediately. Itching at the incision site, as well as minor pain in the area, while moving or doing any activity is completely normal during healing process.

The medicines prescribed during discharge helps to prevent complications associated with heart surgery. During the first six to eight weeks, child can perform simple activities like walking slowly or doing simple household works, which do not put much strain on the body. Lifting or pushing heavy objects should be strictly avoided during this period. Climbing steps may be allowed by the physicians, provided one climbs the steps slowly. Activities that require standing for a prolonged time period or those that demand the arms to be held above the shoulder level for a long time should be avoided after heart surgery. The child's diet should include enough carbohydrate,

protein, vitamins and minerals. Feed the child as per need and according to their age. Avoid foods if the doctor restricts them.

The time at which a child can return to normal activity depends upon how the entire recovery process goes. Usually the child needs rest for three months after surgery. At the same time, if any signs of infection appear or the child experiences palpitations, dizziness, fever or chills, shortness of breath and severe pain or pus in the incision site during the heart surgery recovery process, then the physician should be informed immediately.

The outcome of children after congenital heart surgery depends on the child's condition, the type of defect, and the type of surgery performed and how to care the baby in home after discharge. Many children recover completely and lead normal and active lives.

1.2 Background of the study

A congenital heart defect is a structural problem in the heart that is present at birth. A baby's heart begins to develop early and begins beating just 22 days after conception. Between days 22 and 24, the heart begins to bend to the

right and fold itself into a loop. By day 28, the tube has a general heart-shaped form with the structures of the chambers and blood vessels in place. It is during this time of development that structural defects can occur. These defects can affect the different parts of the heart as well as how it functions. These are the most common type of birth defect and these defects can involve:

- The interior walls of the heart
- The valves inside the heart
- The arteries and veins that carry blood to the heart or out to the body

Congenital heart defects change the normal flow of blood through the heart. There are many types of congenital heart defects. They range from simple defects with no symptoms to complex defects with severe, life-threatening symptoms.

Heart defects can be caused by prenatal environmental hazards as well as genetic factors. Most of the time, the actual cause of the heart abnormality is unknown. Environmental factors includes viral Infections like rubella during the first three months of pregnancy, some medications like lithium and anti-seizure medications, consuming alcohol during pregnancy, smoking, use of

cocaine during pregnancy, maternal chronic illnesses – like diabetes, phenylketonuria (PKU) and deficiency of folic acid. Genetic factors include heredity, mutations, children born with down syndrome and chromosomal abnormality like turner syndrome.

Classification of congenital heart disease

According to American Heart Association (AHA) there are three common classifications of congenital heart disease (CHD), these are:

1. Septal defects.
2. Obstructive defects.
3. Cyanotic defects.

Septal defects

Septal defects are of two types Atrial septal defect and Ventricular septal defect.

• Atrial septal defect (ASD)→ In ASD there is an abnormal opening between the two upper chambers of the heart-the right and left atrium- causing an abnormal blood flow through the heart. This causes increased blood volume in the right heart. Increased volume can cause enlargement of the right atrium,

the right ventricle, and the pulmonary artery. There are several types of ASDs, the mid atrial septal defect (secundum) is most common. Many ASDs can be closed using a simple suture technique. Larger defects can be closed with a patch. Catheter closures of ASDs (device closure) are now most often performed.

• Ventricular septal defect(VSD) →In VSD there is an abnormal opening in the ventricular septum, the wall dividing the left and right ventricles of the heart. Small VSDs may be closed by a non-surgical technique during a procedure known as cardiac catheterization and Closing a large VSD by open-heart surgery by using a patch of fabric or pericardium

Obstructive defects

In an obstructive disorder, the blood flow is restricted or completely blocked. This blockage or narrowing can occur in any of the four heart valves or above or below the valve. The blockage (atresia) or narrowing (stenosis) can occur in vessels returning blood to the heart (veins) or in arteries pumping blood out of the heart (arteries). Common types of obstructive defects are Aortic stenosis, pulmonary stenosis, and Coarctation of the aorta.

• Aortic stenosis(AS)→ Aortic stenosis is a narrowing of the aortic valve. The valve is within the heart's left ventricle and is the entrance to the aorta. Depending on the severity of the stenosis, the symptoms at birth can vary. As the PDA closes the symptoms usually become more acute. Non-surgical treatment is the percutaneous balloon valvuloplasty (opening of a valve), it effectively relieve the valve obstruction. This procedure involves a special catheter containing a balloon being passed through the aortic valve. The balloon is inflated to stretch the valve open. The surgical repair is aimed at relieving the obstruction of blood flow through the aortic valve.

• Pulmonary stenosis (PS)→ Pulmonary stenosis is a narrowing of the pulmonary valve. The valve is within the heart's right ventricle and is the entrance to the pulmonary artery. Because of the narrowing of the valve the right ventricle needs to work harder to get blood past the blockage. Non-surgical treatment includes percutaneous balloon valvuloplasty. This procedure involves a special catheter containing a balloon being passed through the pulmonary valve. The balloon is inflated to stretch the valve open and surgical repair is through the open-heart surgery.

• Coarctation of the aorta (CoA)→. Coarctation of the aorta is a narrowing of some portion of the aorta. Some infants will have no symptoms at birth, but

can develop symptoms within the first week of life. Open-heart surgery is required to open the narrowed area of the aorta to allow free blood flow to the body.

Cynotic defects

Cyanosis is a bluish discoloration of the skin due to less than normal amounts of oxygen in the blood. The cyanotic defects include;

• Tetralogy of Fallot(ToF)→It is the most common complex CHD. This condition is characterized by four defects: VSD, pulmonary stenosis, over riding of aorta and right ventricular hypertrophy. Surgical treatment includes Palliative shunt and complete repair. In paliative shunt, Modified Blalock-Taussig operation is performed, which provides blood flow to the pulmonary arteries from the left or right subclavian artery via a tube graft. Complete repair involves closure of VSD and resection of infundibular stenosis with placement of pericardial patch to enlarge the RVOT. The operative mortalityof TOF is less than 3%.

• Total anomalous pulmonary venous connection →Total anomalous pulmonary venous connection (TAPVC) is a rare cyanotic congenital heart defect in which all four pulmonary veins are malpositioned and make

anomalous connections to the systemic venous circulation. A patent foramen ovale or an atrial septal defect must be present, or else the condition is fatal due to a lack of systemic blood flow. The four types of TAPVC are; Supracardiac, Cardiac, Infradiaphragmatic and Mixed. TAPVC needs urgent surgical intervention.

• Hypoplastic left heart syndrome (HLHS) → Hypoplastic left heart syndrome is a rare congenital heart defect in which the left side of the heart is severely underdeveloped. In babies with HLHS, the aorta and left ventricle are very small, and the aortic and mitral valves are either too small to allow sufficient blood flow or are atretic (closed) altogether. As blood returns from the lungs to the left atrium, it must pass through an atrial septal defect to the right side of the heart. The surgical treatment include staged reconstructive surgery Norwood procedure in infancy, Glenn procedure at 3 to 6 months of age, and the Fontan procedure at 3 to 5 years of age.

• Transposition of the great arteries (d-TGA) → Transposition of the great vessels (TGV) is a group of congenital heart defects involving an abnormal spatial arrangement of any of the primary blood vessels superior and/or inferior vena cava, pulmonary artery, pulmonary veins, and aorta. CHDs involving only the primary arteries (pulmonary artery and aorta) belong to a

sub-group called transposition of the great arteries (TGA). The choice of surgery for TGA is Mustard`s operation and closure VSD.

• Truncus arteriosus → Truncus arteriosus is a rare form of congenital heart disease that presents at birth. In this condition, the embryological structure known as the truncus arteriosus never properly divides into the pulmonary artery and aorta. Treatment is with neonatal surgical repair. The ventricular septal defect is closed with a patch. The pulmonary arteries are then detached from the common artery (truncus arteriosus) and connected to the right ventricle using a tube (a conduit or tunnel).

• Tricuspid atresia→ Tricuspid atresia is a form of congenital heart disease whereby there is a complete absence of the tricuspid valve. Therefore, there is an absence of right atrioventricular connection. This leads to a hypoplastic (undersized) or absent right ventricle. Because of the lack of an A-V connection, an atrial septal defect (ASD) must be present to maintain blood flow.

• Pulmonary atresia(PA)→ Pulmonary atresia is a congenital malformation of the pulmonary valve in which the valve orifice fails to develop. The valve is completely closed thereby obstructing the outflow of blood from the heart to the lungs. Surgical correction is needed in case of PA.

• Patent ductus arteriosus→ Patent ductus arteriosus (PDA) is a congenital disorder in heart wherein a neonate's ductus arteriosus fails to close after birth. Early symptoms are uncommon, but in the first year of life include increased work of breathing and poor weight gain. The treatment is PDA ligation.

1.3 Need and significance of the study :-

Congenital malformations are one of the leading causes of infant death in the United States and other developed nations, and critical congenital disease is responsible for more death than any other type of malformation. The moment an infant is diagnosed with a congenital heart defect, parent experience a mixture of shock, disbelief & often a profound sense of sadness. In the midst of these emotions they must learn to provide for the special needs of their infant. Providing parent with the knowledge and skills to care for their infant during this susceptible time requires the concerted effort of a multi-disciplinary team who can provide clear, concise & consistent communication (Pye, 2003).

Parenting an infant after congenital heart surgery requires adaptation and coping, and parents evolve through this process from diagnosis to discharge. The needed contents of parent teaching are; defect specific information, care of incision, feeding and nutrition, understanding and administering medication, signs and symptoms of complication, sub acute bacterial endocarditis protection, activity, supporting ongoing development and genetic counseling.

1.4 Statement of the problem:-

Effect of group teaching on knowledge about home care among mothers of children after congenital heart surgery.

1.5 Objectives:-

→ To assess the effect of knowledge level of mothers about home care of their children after congenital heart surgery.

→ To assess the relationship between knowledge of mother about home care and selected variables.

1.6 Operational definitions:-

Home care

Home care is the health care or supportive care provided in the patient's home by family and friends, health care professionals or the patient himself.

Congenital heart surgery

In this study, congenital heart surgery will refer to open-heart surgery for the correction of congenital cardiac defects with the assistance of cardio pulmonary bypass.

Group teaching

It is the guidelines on home care which are provided to the group ie, mothers of children after congenital heart surgery.

Knowledge

A state of awareness or understanding with conscious mind. In this study knowledge refers to awareness or understanding about home care after congenital heart surgery. In this study the investigator assesses the knowledge by using a validated questionnaire before and after giving health education.

1.7 Methodology:-

Settings : CHICU & CHW, SCTIMST

Sample : Mothers of children undergoing cardiac surgery

Sample size : 40 mothers

Study design :

- One group received health education about home care management of their children after surgery (interventional group) - 20 mothers.
- Other group did not receive health education (control group) -20 mothers.

Sampling technique: Random sampling

1.8 Tool preparation:-

In order to assess effect of health education about the knowledge of mothers about the home care of their children after congenital heart surgery, mothers answered a self prepared validated questionnaire including 10 questions based on various aspect of home care after discharge before and after giving health education.

1.9 Delimitations:-

- Only Malayalam speaking mothers
- Sample size is 40.

1.10 Organization of the report:-

This chapter deals with introduction, back ground of the study, need and significance of the study, statement of the problem, objective, operational definitions, methodology and delimitations. Chapter II deals with review of literature. Chapter III deals with the methodology and Chapter IV present analysis and interpretation of data & Chapter V include summary, discussion,

conclusion, implications and recommendation. Reference and appendices are given towards the end.

CHAPTER II

REVIEW OF LITERATURE

2.1 Introduction

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 these in view an intensive review of literature has been done.

The review of literature relevant to this study is represented in the following sections;

2.2 Studies on the need of group teaching among mothers to care the child at home following cardiac surgery.

2.3 Studies on the effect of systematic discharge plan on knowledge of mothers for caring the child with congenital heart disease at home.

2.4 Studies related to feeding of children with congenital heart diseases.

2.2 Studies on the need of group teaching among mothers to care the child at home following cardiac surgery.

Stingson (1995) conducted a study to examine the information needs of mothers about caring their children after cardiac surgery. Thirty subjects ranked their perception of the importance and their level of understanding of thirty-three items in mother's information needs instruments and completed the comfort scale shortly before and after discharge. All mothers rated most items in the scale are extremely important to know. Because many mothers' pre-discharge ratings of their understanding were low, the investigator ensured that additional teaching was received. Probably related to this unplanned intervention, mothers understanding scores and their care giving comfort levels were significantly higher post-discharge. The result supported the use of standardized teaching and community follow-up for mothers about caring for infants after cardiac surgery at home.

Driscoll (2000), conducted a study to analyze the patient's and caregiver's perceptions of information received during their stay in hospital. This small-scale study carried out in a Melbourne metropolitan hospital explored patients' perceptions of information, adequacy of information, and their utilization of

information concerning post-discharge care received from health professionals during their stay in hospital. The research design consisted of two stages. Stage one involved a qualitative approach using focused interviews of five pairs of patients and their caregivers, 2 weeks after discharge from hospital. Five main themes emerged from the content analysis of the interview transcripts: information given by health professionals to patients and caregivers, patients and caregivers psychological well-being, activities of daily living, caring tasks of the patients, and community linkages. A quantitative approach was used for stage two involving two sets of questionnaires, one for the patient and one for the caregiver, developed from the themes identified in stage one. The study consisted of a convenient sample of 40 pairs of patients and their caregivers who completed the questionnaires 2 weeks post-discharge. Data analysis of stage two of the study consisted of descriptive statistics and cross-tabulations. The main findings suggested that caregiver received very little information from health professionals concerning their patients' health problems and care at home. The caregiver's health and employment states were often not considered in their patients' discharge plan. Caregiver who were present with their patients when they received information concerning post-discharge care experienced a decrease in anxiety during their patients'

convalescence at home, greater satisfaction with the information they received, and their patients experienced fewer medical problems post-discharge.

Steel (1987), conducted a study to evaluate the effectiveness of cardiac teaching during hospitalization. This evaluation demonstrated that inpatient-teaching programs could be effective for short-term outcomes. In this evaluation, patients readily learned information that prepared them to deal with postoperative experiences, that is, ambulation, exercise, resumption of sexual activity, and symptoms to report indicating lack of tolerance to such activities. Areas of limited knowledge are stress modification and dietary changes. A tightly controlled research study should be conducted using the knowledge acquisition test in clinical settings and accounting for such variables as educational level, years of coronary artery disease, severity of illness, and age. Further study could also be undertaken to validate the finding that hospitalized patients learned priority information necessary for adequate functioning immediately after discharge.

2.3 Studies on the effect of discharge plan on mothers for caring the child with congenital heart disease at home.

Yang (2004), conducted a study to asses the effect of systematic discharge plan on mothers knowledge and confidence in caring for infants with congenital heart disease at home. The mothers who are separated from their infants due to the necessity of surgical treatment for congenital heart disease (CHD) may develop lack of confidence in their ability to care for their infant. A quasi-experimental design was adopted for the study. Subjects were recruited by purposive sampling from mothers who had a hospitalized infant with CHD aged from 0 to 6 months. There were 20 mothers in the control group and 15 mothers in the intervention group. Control group subjects received current nursing instruction and were followed at the outpatient department after discharge of the infant from the hospital whereas the intervention group completed the systematic discharge-nursing plan (SDNP) in addition to current nursing instruction. Evaluations of these two groups based on the mother's knowledge of infant care and confidence to provide adequate care were conducted twice, at 1 week and 1 month after the infant's discharge from the hospital. The results showed that the intervention group had better confidence than the control

group at 1 week and 1 month after the infants' discharge ($p < 0.05$). There was no significant difference of improvement in knowledge of infant care score between the 2 groups. No significant relation was found between knowledge of infant care and maternal confidence. The investigator concluded that SDNP improved maternal confidence in caring for an infant with CHD. Thus, an SDNP may be a valuable part of standard clinical practice in caring for infants with CHD.

Borgsteede (2010), conducted a study to assess the need of information about medication according to patients discharged from a general hospital. The objective of this study was medication regimens change during hospital admission, and this can lead to an increased risk of patient harm after hospital discharge. Information about medication according to the patient's needs may contribute to patient safety by improvement of knowledge and adherence. The goal of this study is to explore the patient's needs on information about medication at hospital discharge. Qualitative, semi-structured interviews were performed with 31 patients from the pulmonology, internal medicine and cardiology departments who were discharged with at least one prescribed drug from the hospital to primary care in the Netherlands. The result showed variable needs concerning information about discharge medication. Most patients wanted to receive basic information about their medication, alternatives for the prescribed medication and side effects. Some

patients did not need basic information and mentioned that information about side effects would negatively influence their attitude towards medication. Patients preferred a combination of oral instructions and written information.

Ozcan and Findik (2010), conducted a study to asses the information level of patients in discharge training given by nurses following open heart surgery. The study revealed that providing discharge information following a surgery is one of the most common nursing approaches and it helped to eliminate or reduce physical and emotional problems. The study aimed to assess the information level of patients in discharge training provided by nurses following open heart surgery.The study was a prospective study including 50 patients who underwent open heart surgery. The information level of patients who received discharge training was assessed before training and 1 month after the training. Data were collected using the personal information form, and pretest and post-test questionnaires. Results indicated that patients were well informed following discharge training ($Z = -6.166$, $P < 0.05$), and that age and marriage variables affected the information level ($P = 0.032$, $P = 0.045$, respectively). Discharge training following open heart surgery increases the knowledge of patients and should be given to patients in a planned manner.

Sohn (2010), conducted a study to asses the risk factors and risk adjustment for surgical site infections in pediatric cardiothoracic surgery patients. The complexity of congenital cardiac defects and the aggressive medical management required supporting patients through their recovery place children at high risk for surgical site infection (SSI). In this study a retrospective review of children undergoing cardio thoracic surgery at a tertiary care referral center between January 1, 2000, and June 30, 2001. Preoperative, intraoperative, and postoperative data were assessed by multivariate analysis. Of 726 surgical procedures performed in 626 patients, SSIs occurred after 46 procedures performed in 46 patients (6.3%). Infections were superficial (n = 22; 47.8%), deep tissue (n = 7; 15.2%), or organ space (n = 17; 37.0%), including 5 episodes of mediastinitis. Median time to SSI was 10 days; 36% of the infections were identified after discharge. On multivariate analysis, children with SSIs were more likely to have been <30 days old (odds ratio [OR], 2.9; 95% confidence interval [CI], 1.2-7.0), to have a perioperative medical device, and to use parenteral nutrition (OR, 3.3; 95% CI, 1.4-7.9). Multiple severities of illness scores, the Risk Adjustment for Congenital Heart Surgery (RACHS-1) category, and longer duration of postoperative antimicrobials were not associated with SSI. The researchers concluded that the use of perioperative medical interventions increases the risk of SSI in

young children after cardiac surgery. Prolonged postoperative courses of antimicrobials should be avoided in the absence of documented infection.

2.4 Studies related to feeding of children with congenital heart diseases.

Feeding an infant is an interactive process that facilitates social, emotional and culturally based skills. Children with congenital or acquired cardiac disease frequently require supportive regimen with regard to feeding so as to maintain weight, resulting in altered experiences for both the child and family.

Christine (2000), conducted a study to asses the impact of feeding young children with congenital or acquired cardiac disease on parents. This study evaluated the practical, emotional and social ramifications for parents, of having a child with cardiac disease who also experienced difficulties with oral feeding. The study sampled three groups of parents who had children less than 3 years of age: those with cardiac disease who had difficulty in feeding, those with cardiac disease and no such difficulty, and those with no medical diagnosis. Parents completed a questionnaire about feeding, a time diary of activities involved in feeding, and Tuck man's Mood Thermometers, which

measure anger and 'poorness-of-mood' associated with feeding the identified child. Parents of children with cardiac disease and a feeding difficulty reported a significantly more negative mood-state, and significantly longer time associated with feeding, than parents of children in the other two groups. Emerging themes from qualitative analysis of the data suggested that having a child with congenital cardiac disease producing difficulty in feeding had a strong negative impact on the whole family.

Lobo (1992), conducted a study to asses the parent infant interaction during feeding when the infant has congenital heart disease. The study examined parent-infant interaction during feeding when the infant has congenital heart disease (CHD) using the Nursing Child Assessment Feeding Scale (NCAFS) and compares the NCAFS scores of the infants with CHD with those of healthy controls. Twenty mother-infant, 10 with CHD and 10 controls, were studied. Infants with CHD scored significantly lower than controls on both infant subscales. Mothers of CHD infants scored significantly lower on the social emotional growth fostering subscale. These findings suggested specific behavioral differences in infants with CHD during feeding and supported the need for more information about feeding interactions in infants

with CHD.

Harrison (2009), conducted a study to assess the effect of maternal behavior on regulation during feeding in healthy infants and infants with transposition. The samples of the study were 15 infants with TGA and 16 healthy infants. The study assessed the measures of physiologic regulation before, during, and after feeding and quality of maternal affect and behavior during feeding were collected post-operatively at two weeks and two months of age. The result showed that infants with TGA demonstrated impaired physiologic regulation with feedings when compared with healthy infants. Healthy infants of more sensitive mothers were more likely to demonstrate a physiologically adaptive response during feeding. Maternal effect on physiologic regulation was not observed in infants with TGA. No differences between groups were found at two months.

Michel (1995), conducted a study to asses the behavioral and physiological response during feeding in infants with congenital heart disease. Twenty mother-infant sample, ten with congenital heart disease (CHD) and ten controls, were studied during a naturally occurring feeding episode. Heart and respiratory rate data were recorded on a computer while the feeding was

videotaped for later scoring. No significant relationship was found between potent disengagement and changes in either heart or respiratory rate during feeding. However, the presentation of disengagement was observed to be significantly more frequent among infants with CHD. A wide range of individual differences was noted in presentation of disengagement of heart and respiratory rates in both groups.

2.5 Summary

The review of literature will give a brief idea about the importance of education of mothers about the home care of their children after congenital heart surgery.

Table 2.1
Key words

Key words	**No: of articles**
Need of group teaching among mothers to care the child at home after cardiac surgery.	98
Effect of discharge plan on mothers for caring the child	81
Feeding of children with congenital heart diseases.	103

CHAPTER III

METHODOLOGY

3.1 Introduction

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

The aim of the study was:-

- To assess the knowledge level of mothers about home care of their children after congenital heart surgery.
- To assess the relationship between knowledge of mother about home care and related variables.

3.2 Research approach :-

Experimental study method was used as research approach for this study.

3.3 Research design :-

To accomplish the objective of the study the investigator recruited mothers of children undergoing cardiac surgery consecutively. These mothers were

randomly assigned to experimental and control group. The investigator selected first 20 mothers in experimental group and next 20 mothers are in control group. The first group received health education about home care (experimental group) and the next group (control group) did not receive health education. In order to assess the effect of group teaching about home care among mothers of children after congenital heart surgery by a self prepared validated questionnaire including 10 question based on various aspects of heath care at home after discharge.

3.4 Setting of study:-

The study was conducted in the CHICU & CHW at SCTIMST, Trivandrum. The rationale for selecting this hospital was that this is one of the super speciality hospitals in India for cardiac patients. Various 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 theater and congenital heart intensive care unit. Minimums of 2 congenital heart operations are done per day.

3.5 Population: -

The population of the study was those mothers of children who are under going cardiac surgery in congenital heart ward.

3.6 sample and sampling technique: -

The consecutively recruited mothers were randomized into experimental and control group. The investigator selected first 20 mothers in experimental group and next 20 mothers are in control group. The entire mothers during the study period and who met inclusion criteria were selected. The sample size was 40.

3.7 Inclusion criteria: -

- Mothers who are willing to participate.
- Those who know Malayalam.

3.8 Development of data collection tool: -

Data collection tool refers to the instrument, which was constructed by the investigator to get information from the control group and experimental

group. An extensive study and review of literature helped in the preparation of tool.

A questionnaire containing 10 multiple-choice questions about the various aspects of health care at home after congenital heart surgery. The tool was scrutinized and the experts of SCTIMST tested content validity. The investigator assessed the knowledge of mothers about the home care of their children after congenital heart surgery on the day of admission and reassessed the knowledge of these selected mothers on the day of discharge, from the experimental group (after giving health education) and from the control group (with out health education).

3.9 Description of tool:-

The questionnaire consisted of mainly two parts;

Part I: - This part contains items such as parent's name, age, educational status, name of child, age, type of surgery and category.

Part II: - This part contains 10 multiple-choice questions, which about the various aspects of health care at home after congenital heart surgery.

3.10 Ethical clearance: -

- ► Formal permission from head of the department.
- ► consent from mothers.

3.11 Pilot study: -

After obtaining consent from authorities a pilot study was conducted on 5 mothers, to test the feasibility & practicability of whole research design.

3.12 Data collection:-

The data was collected from the mothers of children in Congenital Heart Surgery Ward (CHW) of Sree Chitra Tirunal Institute for Medical Sciences and Technology, with the help of a questionnaire. The first 20 mothers were randomly selected and included in experimental group. Health education were conducted to this group in Congenital Heart Surgery Ward and explained about the home care of their children after congenital heart surgery. The contents of topic include care of wound, signs and symptoms of infection,

activities and rest, clothing, importance of personal hygiene both mother and baby, diet, medications and follow up. The next 20 mothers were randomly selected and included in the control group and repeated the study without giving health education. The pretest and post-test were conducted to both group on the day of admission and on the day of discharge respectively. The duration of the study was from August 2010 to November 2010.

3.13 Plan of analysis: -

The investigator analyses the data after the study by using descriptive and inferential statistics.

3.14 Summary: -

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

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

4.1 Introduction

This chapter deals with the analysis and interpretation of data collected from the mothers of children who had undergone congenital cardiac surgery in SCTIMST, Trivandrum.

Analysis is the process of organizing and synthesizing of data in such a way that project question can be answered. The overall analysis is to organize structure and to elicit meaning from collected data (Polit & Beck 2006).

Interpretation is the process of making sense of the result and examining of the implication of finding of the study. The findings of the study were arranged and analyzed under the following sections.

4.2 Distribution of sample according to demographic data.

Table 4.1 **Distribution of sample according to age.**

Age in years	Experimental group N (%)	Control group N (%)
20 - 29	15 (75%)	11 (55%)
30 - 39	2 (10%)	5 (25%)
40 - 49	3 (15%)	4 (20%)
Total	20 (100%)	20 (100%)

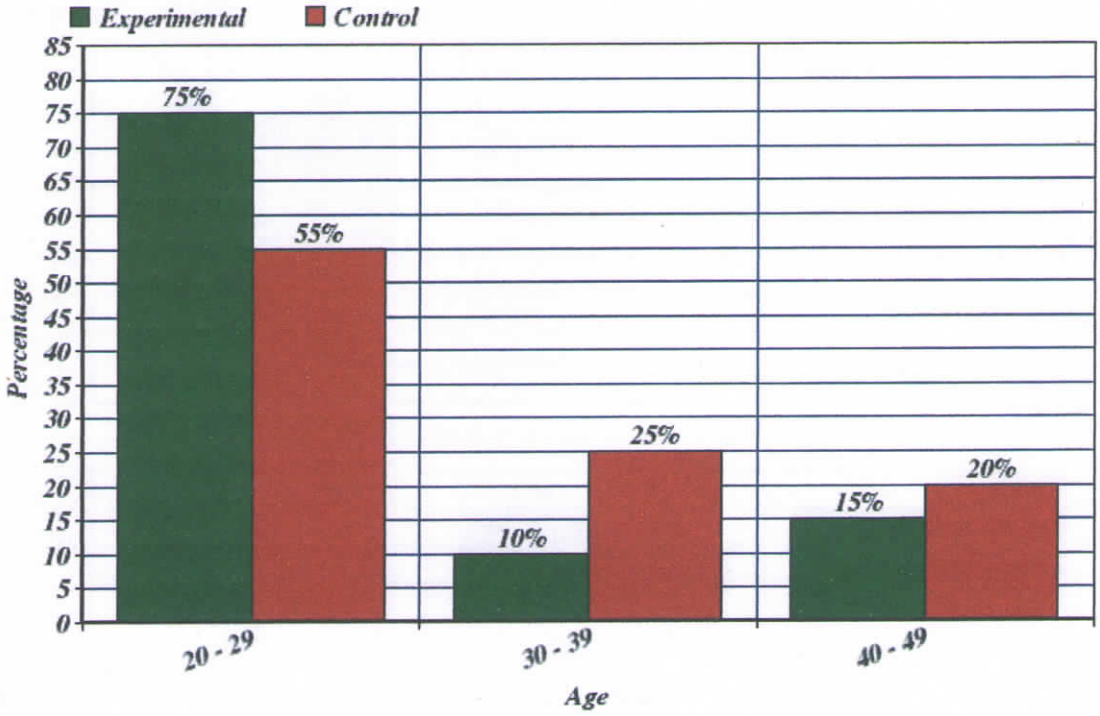

Figure 4.1 **Distribution of sample according to age.**

Table 4.2 **Distribution of sample according to educational status.**

Education	Experimental group N (%)	Control group N (%)
School	14(70%)	14(70%)
PDC	3(15%)	2(10%)
Degree	3(15%)	4(20%)
Total	20 (100%)	20 (100%)

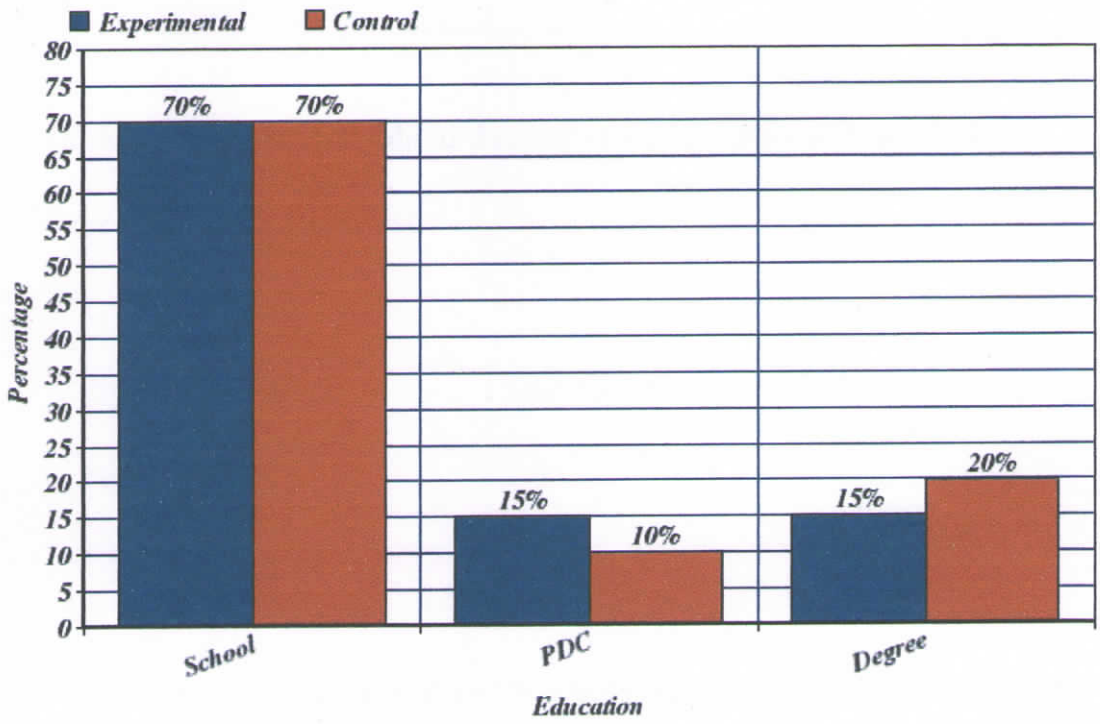

Figure 4.2 **Distribution of sample according to educational status.**

4.3 Relationship between parent's knowledge regarding home care of their children after congenital heart surgery and selected variables.

Table 4.3 **Mean, Standard deviation and p value of knowledge score by age in Pre-test.**

Age	Mean	Standard deviation	P value
<27	5.65	0.99	0.00
>27	3.7	1.3	

Table 4.4 **Mean, Standard deviation and p value of knowledge score by age in post-test.**

Age	Mean	Standard deviation	P value
<27	8.55	2.06	0.002
>27	5.85	3.05	

The data shows the p value of pre-test is 0.00 and p value of post-test is 0.002, there was a statistically significant difference between the age and knowledge level of the patient in both pretest and post test. Samples in age below 27 are having more knowledge than those with age above 27.

4.3 Relationship between parent's knowledge regarding home care of their children after congenital heart surgery and selected variables.

Table 4.3 **Mean, Standard deviation and p value of knowledge score by age in Pre-test.**

Age	Mean	Standard deviation	P value
<27	5.65	0.99	0.00
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<27	8.55	2.06	0.002
>27	5.85	3.05	

The data shows the p value of pre-test is 0.00 and p value of post-test is 0.002, there was a statistically significant difference between the age and knowledge level of the patient in both pretest and post test. Samples in age below 27 are having more knowledge than those with age above 27.

Table 4.5 **Mean, Standard deviation and p value of knowledge score by educational qualification in pre-test.**

Education	mean	Standard deviation	P value
School	4.11	1.37	0.0001
Higher	6	1.05	

Table 4.6 **Mean, Standard deviation and p value of knowledge score by educational qualification in post-test.**

Education	mean	Standard deviation	P value
School	6.58	3.15	0.26
Higher	8	2.13	

The data given in Table 4.5 and 4.6 shows that there was a statistically significant difference between the educational status of the sample and the knowledge level in pre-test. However there was no statistically significant difference between the mean knowledge of low education group and high education group in the post-test.

4.4 Mean, Standard deviation and p value of each group based on Knowledge score.

Table 4.7 **Mean, Standard deviation and p value of each group based on Knowledge score in pre-test.**

Group	Mean	Standard deviation	P value
Experimental	5.25	1.58	0.016
Control	4.1	1.29	

The data shows the knowledge score of patients in pretest of both experimental and control group. The p value is 0.016, there was a statistically significant difference existed in the knowledge of samples in the pre-test of both groups.

Table 4.8 **Mean, Standard deviation and p value of each group based on Knowledge score in Post-test.**

Group	Mean	Standard deviation	P value
Experimental	9.85	0.37	0.000
Control	4.55	1.57	

The data shows the knowledge score of mothers in posttest of both experimental and control group .The p value is 0.000, there was a statistically significant difference existed in the knowledge score of sample in the post-test of both groups.

Table 4.9 **Mean, standard deviation and p value of experimental group in the pretest and post-test**

Experimental Group	Mean	Standard deviation	P value
Pretest	5.25	1.58	0.000
Post-test	9.85	0.37	

The data shows the knowledge score of experimental group in the pretest and post-test. Paired 't' test was done, the result shows there is statistically significant difference exists in the knowledge score of sample in both pretest and post-test (p value 0.000).

4.5 Summary

This chapter deals with analysis and interpretation of data collected from 40 mothers of children undergone congenital heart surgery. Descriptive statistics

was used for the analysis. Bar graphs are used to describe the demographic characteristics of the sample.

CHAPTER V

SUMMARY, CONCLUSION, LIMITATIONS, INTERPRETATIONS AND RECOMMENDATIONS.

5.1 Introduction

This chapter gives a brief account of the present 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.

5.2 The major findings of the study

The distribution of samples according to demographic data showed that majority of the sample in the experimental and control group were young <29 yrs old and had only school education. Analysis and interpretation include relationship between mother's knowledge regarding home care of their children after congenital heart surgery and selected variables.

According to the age of the sample the investigator divided the group as <27 yrs and >27 yrs. The data showed that there was a statistically significant difference between the age and knowledge level of the patient in both pretest and post test. Samples in age below 27 are having more knowledge than those with age above 27.

According to the educational qualification of sample, investigator divided the group as school education and higher education. The data shows there was a statistically significant difference between the educational status of the sample and the knowledge level in pre-test. However there was no statistically significant difference between the mean knowledge of low education group and high education group in the post-test.

The pretest knowledge score of both experimental and control group, the data shows there was a statistically significant difference existed in the knowledge of samples in the pretest of both groups. The post-test knowledge score of both experimental and control group, the data shows there was a statistically significant difference existed in the knowledge score of sample in the post-test of both groups.

5.3 Limitations

► Study was limited to SCTIMST, Trivandrum.

► Mothers who were not willing to participate in this study were excluded.

► Only Malayalam speaking mothers were included in this study.

► The sample size was limited to 20 in each group.

5.4 Recommendations

► Health education of mothers about the home care of their children after congenital heart surgery should become a routine practice to congenital heart surgery ward.

► Using a large sample size the same study, can be repeated.

► Same study can be conducted in other health care institutions.

► Other educational methods may be used and the study can be repeated.

5.4 Conclusion

Education of mothers about home care of their children will helps to prevent complications and ensure quick recovery after congenital heart surgery. Based

on the findings, the study concluded that health education helps to improve the knowledge level of mothers and this will play an important role to care the child after discharge. Further research using a large sample is needed to evaluate and validate the study.

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ANEXURE I

INFORMED CONSENT

I,..... hereby agree to participate in the research study, to assess the effect of knowledge of mothers regarding home care of their children after congenital heart surgery, conducted by Mrs. Remya R.S, I`st year Diploma in Cardiovascular and Thoracic Nursing, of SCTIMST, Trivandrum. I understand that there will not be any change in the nature of care I receive and the data's given by me will be kept confidential, and will be used only for research purpose.

Name and Signature of the participant

.....

Date:

Place:

ANEXURE II

A QUESTIONNAIRE TO ASSESS THE KNOWLEDGE OF MOTHERS REGARDING HOME CARE OF THEIR CHILDREN AFTER CONGENITAL HEART SURGERY OF THEIR CHILDREN.

DEMOGRAPHIC DATA

Name of participant:

Age :

Educational status :

Name of child :

Age :

Name of surgery :

Category :

1. What are the measures to prevent wound infection?

a) Wash wound with soap and keep dry

b) Apply powder

c) Never wash wound

d) I don't know

2.Which of the following activity is to be avoided after surgery?

a) Drawing

b) Watching T V

c) Running

d) I don't know

3.Which type of dresses are to be preferred after surgery?

a) Tight dresses

b) Woolen cloths

c) Loose cotton dresses

d) No need to use dress

4.How many months does the child need to take rest after operation?

a) 1 Month

b) 2 Months

c) 3 Months

d) More than 3 months

5.What should be monitored after giving Tab.Lasix?

a) Heart rate

b) Urine output

c) Respiratory rate

d) I don't know

6.Which person should avoid close contact with the child?

a) Person with diabetes mellitus

b) Persons with cough & cold

c) Person who have under gone another surgery

d) I don't know

7.What are the measures to be taken by mothers who care the baby?

a) Take two-times bath/ day

b) Wash hand thoroughly before caring the child

c) Wear clean dresses

d) All of the above

8.How will you assess whether the child's wound is infected?

a) Vomiting and loss of appetite

b) Color change or pus from wound

c) Itching around the wound

d) I don't know

9. Which of the following food can be taken after surgery?

a) Too much of oily foods

b) Liquid diet only

c) Foods according to likes & age of the child

d) I don't know

10. When should you bring the child for first visit to the doctor after discharge?

a) 3rd day

b) 4th day

c) After 1 week

d) I don't know

ANSWER KEY

1) a	6) b
2) c	7) d
3) c	8) b
4) c	9) c
5) b	10) a

അറിവ് പരിശോധിക്കുന്നതിനുള്ള ചോദ്യാവലി.

താങ്കളുടെ പേര് :

വയസ്സ് :

വിദ്യാഭ്യാസ യോഗ്യത :

കുഞ്ഞിന്റെ പേര് :

വയസ്സ് :

കുഞ്ഞിന് ചെയ്ത ശസ്ത്രക്രിയ :

വരുമാന കാറ്റഗറി :

താഴെപറയുന്നവയിൽ ശരിയായ ഉത്തരത്തിന് നേരെ ശരി (√) അടയാളപ്പെടുത്തുക

1. കുഞ്ഞിന്റെ മുറിവ് പഴുക്കാതിരിക്കാൻ എന്താണു ചെയ്യേണ്ടത് ?
   - മുറിവ് സോപ്പുപയോഗിച്ച് കഴുകി ഉണക്കി സൂക്ഷിക്കണം.
   - മുറിവിൽ പൗഡറിട്ടു സൂക്ഷിക്കണം
   - മുറിവ് കഴുകരുത്
   - അറിയില്ല
2. താഴെപറയുന്നവയിൽ ഓപ്പറേഷൻ കഴിഞ്ഞ കുഞ്ഞുങ്ങൾ ഒഴിവാക്കേണ്ടത് ഏത്?
   - പടം വരയ്ക്കുക
   - ടി വി കാണുക
   - ഓടികളിക്കുക
   - അറിയില്ല
3. ഏതുതരം ഉടുപ്പുകളാണ് കുഞ്ഞുങ്ങൾ ധരിക്കേണ്ടത് ?
   - ഇറുകിയ വസ്ത്രങ്ങൾ
   - കമ്പിളിയുടുപ്പുകൾ
   - അയഞ്ഞകോട്ടൺ വസ്ത്രങ്ങൾ
   - ഉടുപ്പുധരിക്കുവാൻ പാടില്ല

- 1 – മാസം
- 2 – മാസം
- 3 – മാസം
- 3 – മാസത്തിൽ കൂടുതൽ

5. ലാസിക്സ് ഗുളിക കൊടുത്തുകഴിഞ്ഞാൽ പ്രധാനമായും ശ്രദ്ധിക്കേണ്ടത് എന്താണ് ?

- ഹൃദയമിടിപ്പ്
- മൂത്രത്തിന്റെ അളവ്
- ശ്വാസോച്ഛ്വാസക്രമം
- അറിയില്ല.

6. എങ്ങനെയുള്ള ആൾക്കാരുമായുള്ള സമ്പർക്കമാണ് കുഞ്ഞുങ്ങൾ ഒഴിവാക്കേണ്ടത് ?

- പ്രമേഹരോഗമുള്ളവർ
- പനി, ചുമ എന്നിവ ഉള്ളവർ
- മറ്റ് ശസ്ത്രക്രിയ കഴിഞ്ഞവർ
- അറിയില്ല

7. കുഞ്ഞിനെ പരിചരിക്കുന്ന അമ്മമാർ ശ്രദ്ധിക്കേണ്ടത് എന്തൊക്കെയാണ്. ?

- ദിവസവും രണ്ടുനേരം കുളിക്കുക
- കുഞ്ഞിനെ പരിചരിക്കുന്നതിനുമുമ്പ് കൈകൾ നന്നായി കഴുകുക.
- വൃത്തിയുള്ള വസ്ത്രങ്ങൾ ധരിക്കുക
- മുകളിൽ പറഞ്ഞവയെല്ലാം ശ്രദ്ധിക്കണം

8. കുഞ്ഞിന്റെ മുറിവിൽ അണുബാധയുണ്ടെന്ന് എങ്ങനെ മനസ്സിലാക്കാം ?

- ചർദ്ദിൽ, വിശപ്പില്ലായ്മ എന്നിവയുള്ളപ്പോൾ
- മുറിവിൽ നിറവ്യത്യാസമോ പഴുപ്പോ കാണുമ്പോൾ
- മുറിവിനുചുറ്റും ചൊറിച്ചിലുള്ളപ്പോൾ
- അറിയില്ല

9. ഏത് രീതിയിലുള്ള ആഹാരമാണ് കുഞ്ഞിന് കൊടുക്കേണ്ടത് ?

- എണ്ണ കൂടുതലുള്ള ആഹാരം
- ദ്രാവകരൂപത്തിലുള്ള ആഹാരം മാത്രം
- പ്രായത്തിനനുസരിച്ച് കുഞ്ഞിന് ഇഷ്ടമുള്ള ആഹാരം
- അറിയില്ല.

10. ഡിസ്ചാർജ് ചെയ്ത് കഴിഞ്ഞ് സാധാരണയായി എത്രദിവസം കഴിഞ്ഞാണ് കുഞ്ഞിനെ ഡോക്ടറെ കാണിക്കാൻ കൊണ്ടുവരേണ്ടത് ?

- 3-ാം ദിവസം
- 4-ാം ദിവസം
- ഒരാഴ്ച കഴിഞ്ഞ്
- അറിയില്ല

ഹൃദയശസ്ത്രക്രിയ കഴിഞ്ഞ കുഞ്ഞുങ്ങളുടെ ശുശ്രൂഷയെകുറിച്ച് അമ്മമാർ അറിഞ്ഞിരിക്കേണ്ട വസ്തുതകളെപ്പറ്റിയുള്ള പഠനാവലി.

മനുഷ്യശരീരത്തിൽ വളരെ പ്രാധാന്യമർഹിക്കുന്ന ഒരു അവയവമാണ് ഹൃദയം. കുഞ്ഞിന്റെ ശരീരത്തിനാവശ്യമായ ഓക്സിജനും, വളർച്ചയ്ക്ക് ആവശ്യമായ ഘടകങ്ങളും രക്തംവഴി വിവിധ ഭാഗങ്ങളിലേയ്ക്ക് എത്തിക്കുക എന്നതാണ് ഹൃദയത്തിന്റെ ധർമ്മം. അതുകൊണ്ടുതന്നെ ഹൃദയത്തിന്റെ ഓപ്പറേഷൻ കഴിഞ്ഞ കുഞ്ഞുങ്ങൾക്ക് അതീവ ശ്രദ്ധയോടുകൂടിയ പരിചരണം ആവശ്യമാണ്.

1. മുറിവിന്റെ പരിചരണം

കുഞ്ഞിന്റെ മുറിവ് വളരെ വേഗം ഉണങ്ങുന്നതിന് നല്ലരീതിയിലുള്ള സംരക്ഷണം ആവശ്യമാണ്.

→ മുറിവ് നന്നായി സോപ്പും, തിളപ്പിച്ചാറിയ വെള്ളവുമുപയോഗിച്ച് കഴുകിയതിനുശേഷം അലക്കി തേയ്ച്ചതോ, വെയിലിൽ ഉണക്കിയതോ ആയ വൃത്തിയുള്ള തുണികൊണ്ട് ഒപ്പിയെടുത്ത് നനവില്ലാതെ സൂക്ഷിക്കണം. മുറിവ് ഡ്രസിംഗ് ചെയ്യേണ്ട ആവശ്യമില്ല.

→ തീർച്ചയായും കുഞ്ഞിനെ എന്നും കുളിപ്പിക്കണം.

→ മുറിവിൽ എണ്ണയോ, ക്രീമോ, പൗഡറോ ഒന്നും ഉപയോഗിക്കേണ്ട ആവശ്യമില്ല.

→ കുഞ്ഞിന് ആഹാരം കൊടുക്കുമ്പോൾ മുറിവിനുമുകളിൽ ഒരു ടൗവ്വൽ ഇടണം. ഇത് മുറിവിൽ ആഹാരവശിഷ്ടങ്ങൾ വീഴാതിരിക്കാൻ സഹായിക്കും.

→ മുറിവിൽ ചൊറിയാനോ, തിരുമ്മാനോ അനുവദിക്കരുത്. അതിനാൽ കുഞ്ഞിന്റെ നഖം വെട്ടിവൃത്തിയാക്കുകയും, കൈകൾ ശുചിത്വത്തോടെ സൂക്ഷിക്കുകയും വേണം.

→ അലക്കിത്തേച്ച അയഞ്ഞ കോട്ടൺ വസ്ത്രങ്ങളാണ് കുഞ്ഞിനെ ധരിപ്പിക്കേണ്ടത്. ഇത് മുറിവിൽ ഉരസാതിരിക്കാൻ സഹായിക്കും.

→ മുറിവിന് നിറവ്യത്യാസമോ, നീർ വീക്കമോ, നീരൊലിപ്പോ, കുഞ്ഞിന് പനിയോ, അസഹ്യമായ വേദനയോ ഉണ്ടാകുന്നുണ്ടോ എന്ന് ദിവസവും നിരീ

ഉടൻ തന്നെ അടുത്തുള്ള ഡോക്ടറെ കാണിക്കുക. മുറിവിനുണ്ടാകുന്ന ചെറിയ ചൊറിച്ചിലോ, വലിച്ചിലോ അണുബാധയുടെ ലക്ഷണങ്ങളല്ല.

→ ഏതെങ്കിലും തരത്തിലുള്ള അണുബാധയുള്ളവരുമായുള്ള സമ്പർക്കം കുഞ്ഞുങ്ങൾ ഒഴിവാക്കണം. (ഉദാ: പനി, ചുമ, തുമ്മൽ തുടങ്ങിയവ)

→ കുഞ്ഞിനെ പരിചരിക്കുന്ന അമ്മമാർ ദിവസവും രണ്ടുനേരം കുളിക്കുകയും, വൃത്തിയുള്ള വസ്ത്രങ്ങൾ ധരിക്കുകയും വേണം. കുഞ്ഞിനെ പരിചരിക്കുന്നതിനുമുമ്പ് കൈകൾ നന്നായി സോപ്പുപയോഗിച്ച് കഴുകണം.

2. വിശ്രമം

→ സാധാരണയായി 3 മാസത്തെ വിശ്രമമാണ് കുഞ്ഞിന് വേണ്ടത്.
3 മാസങ്ങൾക്കുശേഷം കുഞ്ഞിനെ പുറത്തേയ്ക്ക് കൊണ്ടുപോകാവുന്നതാണ്.

→ ഓപ്പറേഷനുമുമ്പ് കുഞ്ഞ് ഉറങ്ങിയിരുന്നതുപോലെ സാധാരണയായി കുഞ്ഞിനെ ഉറങ്ങാൻ അനുവദിക്കണം.

→ കിടക്കയിൽ നിന്നും കുഞ്ഞിനെ എടുക്കുമ്പോൾ ഒരു കൈകൊണ്ടുപിൻകഴുത്തും തലയും, മറ്റേ കൈകൊണ്ട് നടുവിനും താങ്ങേണ്ടതാണ്. കുഞ്ഞിന്റെ കൈകളിൽ പിടിച്ചുപൊക്കാൻ പാടില്ല.

→ നെഞ്ചും, തോളും വലിയത്തക്കവിധം ഞെളിയാനോ, തൂങ്ങിക്കളിക്കാനോ അനുവദിക്കരുത്.

→ നിർബന്ധം പിടിച്ച് ഒരുപാടുനേരം കരയാൻ കുഞ്ഞിനെ അനുവദിക്കരുത്. കുഞ്ഞിന്റെ അടുത്തിരുന്ന് സാവധാനം സാന്ത്വനിപ്പിച്ച് കരച്ചിൽ നിർത്തണം.

3. കളികൾ

→ ആയാസം കുറഞ്ഞ കളികളാണ് ഉത്തമം (ഉദാ: പടം വരയ്ക്കുക, ചായമടിക്കുക, കാർഡ് കളിക്കുക, പാട്ടുകേൾക്കുക, ടി.വി.കാണുക തുടങ്ങിയവ.)

→ മുതിർന്നവരുടെ ശ്രദ്ധ കുഞ്ഞ് കളിക്കുമ്പോൾ എപ്പോഴും ഉണ്ടാകണം. ഏതുതരം കളിയായാലും ക്ഷീണം തോന്നിയാൽ വീണ്ടും കളിക്കാൻ അനുവദിക്കരുത്.

→ മറ്റുകുട്ടികൾ കളിക്കുന്നതിനിടയ്ക്ക് പോകാതിരിക്കാൻ പ്രത്യേകം ശ്രദ്ധിക്ക

കയും വേണം. കാരണം കാൽ തെന്നി വീണാൽ നെഞ്ചിന് ക്ഷതമേൽക്കാൻ സാധ്യതയുണ്ട്.

4. ഭക്ഷണക്രമം

കുഞ്ഞിന്റെ മുറിവ് വളരെ വേഗം ഉണങ്ങിക്കിട്ടുന്നതിനും, ആരോഗ്യപൂർണ്ണമായ വളർച്ചയ്ക്കും സമീകൃതാഹാരം വളരെ ആവശ്യമാണ്.

→ കുഞ്ഞിന്റെ ഇഷ്ടത്തിനനുസരിച്ചും, പ്രായത്തിനനുസരിച്ചും ഉള്ള ഏത് ഭക്ഷണവും കുഞ്ഞിന് നൽകാവുന്നതാണ്.

→ ധാരാളം പച്ചക്കറികളും, പഴവർഗ്ഗങ്ങളും, പയറുവർഗ്ഗങ്ങളും ഭക്ഷണത്തിൽ ഉൾപ്പെടുത്തണം.

→ ഒരുപാട് എണ്ണയും, കൊഴുപ്പും അടങ്ങിയ ഭക്ഷണം ഒഴിവാക്കുന്നതാണ് ഉത്തമം.

→ ഉപ്പ് കുറയ്ക്കാനോ, വെള്ളം കുടിക്കുന്നതിൽ നിശ്ചിത അളവ് വേണമെന്നോ ഡോക്ടർ നിർദ്ദേശിച്ചിട്ടുണ്ടെങ്കിൽ അപ്രകാരം ചെയ്യണം.

5. മരുന്നുകളുടെ ഉപയോഗം

→ ഡോക്ടറുടെ നിർദ്ദേശപ്രകാരം മരുന്ന് കൃത്യമായ അളവിലും, സമയത്തും നൽകേണ്ടതാണ്.

→ ലാസിക്സ് ഗുളിക കുഞ്ഞിന്റെ മൂത്രത്തിന്റെ അളവ് വർദ്ധിപ്പിക്കുന്നതിനാണ്. ആയതിനാൽ ഗുളിക നൽകികഴിഞ്ഞ് മൂത്രത്തിന്റെ അളവ് ശ്രദ്ധിക്കണം. ഈ ഗുളിക രാത്രി നൽകാതിരിക്കുന്നതാണ് ഉത്തമം. 2-നേരം കഴിക്കാൻ നിർദ്ദേശിച്ചിട്ടുണ്ടെങ്കിൽ രാവിലേയും, വൈകുന്നേരവും നൽകണം.

→ ഡിജോക്സിൻ എന്ന ഗുളിക ഹൃദയത്തിന്റെ താളം നിയന്ത്രിക്കുന്നതിനു വേണ്ടിയുള്ളതാണ്. ആയതിനാൽ ഈ ഗുളിക നൽകുന്നതിനുമുമ്പും, ശേഷവും ഹൃദയമിടിപ്പ് പരിശോധിക്കണം.

→ ഡോക്ടറുടെ നിർദ്ദേശപ്രകാരമല്ലാതെ മരുന്നുകൾ നിർത്തുവാനോ, മാറ്റിക്കഴിക്കുവാനോ പാടില്ല.

→ ഗുളികകൾ കഴിക്കാൻ വിഷമമുള്ള കുഞ്ഞുങ്ങൾക്ക് അല്പം വെള്ളത്തിൽ കലക്കി മധുരം ചേർത്ത് നൽകാം.

→ ഗുളിക കഴിച്ചതിനുശേഷം കുഞ്ഞ് ഛർദ്ദിക്കുകയാണെങ്കിൽ അവ രണ്ടാമത് നൽകേണ്ടതില്ല.

6. പൊതുവായിട്ടുള്ള നിർദ്ദേശങ്ങൾ

→ കുഞ്ഞിന്റെ മുറി വൃത്തിയുള്ളതും, വായുസഞ്ചാരമുള്ളതും ആയിരിക്കണം.

→ ഓപ്പറേഷൻ കഴിഞ്ഞ് ഡിസ്ചാർജ് ചെയ്തശേഷം സാധാരണയായി 3-ാം ദിവസവും, 3-ാം മാസവുമാണ് പുന: പരിശോധന നടത്താറുള്ളത്. അന്നേദിവസങ്ങളിൽ കൃത്യമായും കുഞ്ഞിനെ ആശുപത്രിയിൽ കൊണ്ടുവരേണ്ടതാണ്.

→ കുഞ്ഞിന്റെ ചുണ്ട്, ചെവി, കൈകാൽ വിരലുകൾ എന്നിവിടങ്ങളിൽ നീല നിറം വരുകയോ, നേരത്തേ ഉള്ളതിനേക്കാൾ അധികമാവുകയോ ചെയ്താൽ പെട്ടെന്നു തന്നെ ഡോക്ടറെ കാണിക്കണം.

→ നിസ്സാര പ്രശ്നങ്ങൾ ഏതെങ്കിലും ഉണ്ടെങ്കിൽ കുഞ്ഞിനെ അടുത്തുള്ള ഡോക്ടറെ , ഡിസ്ചാർജ് സമ്മറിയും, മരുന്നിന്റെ കുറിപ്പുമായി കാണിക്കുക. അദ്ദേഹം നിർദ്ദേശിക്കുകയാണെങ്കിൽ മാത്രം അപ്പോയിന്റ്മെന്റ് ഇല്ലാതെയും ഇവിടേയ്ക്ക് വരാം.