EFFECTIVENESS OF VIDEO ASSISTED TEACHING MODULE ON KNOWLEDGE AND ATTITUDE AMONG CARE Givers OF CHILDREN WITH CONGENITAL HEART DISEASE

By

A. Yamunavathy

A DISSERTATION SUBMITTED TO THE TAMILNADU DR.M.G.R MEDICAL UNIVERSITY, CHENNAI, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR DEGREE OF MASTER OF SCIENCE IN NURSING

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DECLARATION

I hereby declare that the present dissertation entitled **EFFECTIVENESS OF VIDEO ASSISTED TEACHING MODULE ON KNOWLEDGE AND ATTITUDE AMONG CARE GIVERS OF CHILDREN WITH CONGENITAL HEART DISEASE** is the outcome of the original research work undertaken and carried out by me, under the guidance of Prof. S. Ani Grace kalaimathi M.Sc (N)., PGDNA., DQA., Ph.D. Principal and HOD Department of Child Health Nursing, MIOT College of Nursing, Chennai. I also declare that the material of this has not formed in any way, the basis for the award of any degree or diploma in this university or other universities.

A.YAMUNAVATHY

II\textsuperscript{nd} Year M.Sc (N)
I lift up my heart in gratitude to God Almighty, for I feel the hand of God on me, leading me through thick and thin to heights of knowledge. It is he who granted me the grace and the physical and mental strength behind all my efforts.

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ABSTRACT

A study to assess the effectiveness of video assisted teaching module on knowledge and attitude among care givers of children with congenital heart disease in a selected hospital at Chennai.

The conceptual frame work of the study was developed on the basis of Ludwig Yon Bertalanffy general system theory. An experimental research approach with pre experimental one group pre and post test design was used to achieve the objectives of the study. The present study was conducted in MIOT Hospitals at Chennai, with a sample size of 30 care givers of children with congenital heart disease through a non–probability convenient sampling technique.

The investigator used a demographic variable Proforma and a structured questionnaire on Atrial Septal Defect to collect the data. The data was collected by using the interview method, after the pre-test video-assisted teaching module was administered to the care givers of children with congenital heart disease and the post test was done after a week.

The demographic characteristics revealed that most of the participants were fathers and mothers in the age group between 20 and 30 years. It was noted that the majority of the participants 15(50%) had inadequate knowledge and 3.3% had low attitude, 43.3% had moderate attitude in pre-test, whereas in the post-test the majority of the care givers gained 19(63.3%) adequate knowledge and high attitude 27(90%) and
none of them had low attitude. It was also noted that there was a significant improvement in the post-test mean score of knowledge and attitude, which were highly significant at P<0.001 level. This indicates the effectiveness of video-teaching programme on ASD.

The correlation score between the post-test knowledge and attitude of $r = 0.556$ which is significant at P<0.001 level. This reveals that improvement in knowledge significantly influences the attitude of caregivers on Atrial Septal Defect. There is no significant association between the selected demographic variables with post-test level of knowledge and attitude score.

The result indicated that the video-assisted teaching method had significantly improved the level of knowledge and attitude on Atrial Septal Defect among the caregivers of children with congenital heart disease.
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CHAPTER I

INTRODUCTION

The moment a child is born the mother is also born, she never existed before, and the women existed, but the mother never. A mother is something absolutely new.

-Rajneesh

A newborn baby depends on its mother for its life, because mothers are the sweetest, most delicate of all and she knows more of paradise than angels can recall. For the child its mother is its world as she cares for her baby by meeting its needs depending on physiological and behavioral changes.

As soon as a child is born the mother dreams about the child and its life. When the child is falls ill or has any abnormal physical or mental disabilities or deviated from the normal characteristics she identifies the problem and meets the need of the child. She is the first care taker of the child. Some children are born with a number of congenital anomalies at birth. Congenital heart disease is common and detected at birth or during their life cycle, because some time it won’t show any manifestation, now through advance technology the parents knows about the congenital heart disease and its effects and management.

Congenital heart defect is a problem with the structure of the heart. It is present at birth. Congenital heart disease is the most common type of major birth defect. It is
otherwise known as heart birth defect & heart defect or septal defects. The defects may affect various structures in the heart, including the valves, the veins leading to the heart, arteries leaving the heart, the connections and inner relationship among these various parts and even location of the heat within the chest.

Atrial is an opening in the atrial septum or dividing wall between the two upper chambers of the heart known as the left and right atria. Atrial septal defect is a congenital heart defect. It is a developmental defect.

Godart, F. (2006) noted that more than twenty years interventional cardiac cauterization has considerably increased in the therapeutic management of simple congenital heart disease in childhood. It is possible to correct pulmonary or aortic valve stenosis to close a persistent shunt as patent arterial duct or ASD, sometimes it can replace surgical repair and can be proposed as a first line treatment. Interventional cardiac catheterization has several advantages for the patient. No thoracotomy, no scar, shorter hospital stay, less painful, lower morbidity and reduced cost.

Upham, M., Medoff copper. (2005) reveals approximately forty thousand infants are born with Congenital Heart Disease each year, a large percentage survive due to technological advances in an increasing number of families who have a child living with a chronic illness. Literature reveals parents are significantly affected by diagnosis of congenital heart disease. The mother’s experience after learning her child’s diagnosis include grief, loss of her healthy child, lack of knowledge of disease, difficulty in care
giving, among other issues. Support and encouragement at the time of diagnosis and throughout each stage of the illness is essential.

Professional guide to disease (2005) reported that atrial septal defect is present in favor of every 100,000 people. Less than 1% of neonates are born with ventricular septal defect, in 80%-90% of neonates who are born with this disorder, the hole is small and will usually close and usually it close spontaneously. In the remaining 10%-20% of neonates, surgery is needed to close the hole.

Khalil, A.et.al. (2003) examined 1964 consecutive live births, weighing more than 500g and more than 28 weeks of gestation were subjected to a thorough clinical examination within 24 hours of birth in India. Those suspected of having congenital heart disease were followed-up every four to six weeks for a period of 6-18 months. Fourty three out of 10,964 infants had congenital heart disease that is 3.9/1000 live birth. 28% of the infant with congenital heart disease had other associated somatic anomalies, Down’s syndrome (9.3%). Patent ductus arteriosus (41.9%) and ventricular septal defects (34.9%), were the commonest lesions with an incidence of 1.6 and 1.4/1,000 live births, respectively.

American Heart Association. (2000) stated that the birth of an infant with congenital heart disease is very stressful for parents. Congenital heart disease is a common clinical entity and occurs in 0.8% of live newborns. Congenital heart disease which is not actually a disease process that refers to anatomic defect present at birth, those are due to an embryonic development defect of the heart and major blood vessels.
Congenital heart disease occurs approximately 1% of live births per year nationally, making heart defects the most commonly occurring birth defect.

Jessie, et.al. (1991) stated an anomaly originating in the developing fetus is often considerably modified physiologically by dramatic circulatory adjustment at birth, physiologic or structural changes continue or conversely, the malformation may and spontaneously correct itself.

Campell, (1987) reported the congenital heart disease forms a major bulk among the disease which cause growth and developmental retardation between the age group of 1-5 years. The outlook for an infant and child with congenital heart disease is dependent on the nature and severity of the lesion and presence of associated anomalies and availability of prompt treatment. Those children who have congenital heart disease suffered from hypoxia and defective tissue perfusion which have adverse effects on the growth of the child.

Fanarolt, et.al. (1979) states that in the family voyage only one moment brings about a universal response of joy and happiness irrespective of the caste, creed, religion and geographical boundaries is child birth. This smooth process can get disrupted by many stimuli rising from either within or outside the family resulting in a phase of disorganization, confusion, and one such anomaly is the presence of cardiac defect in children occurs as a result of congenital anomaly, either the heart has inadequately developed or the system is unable to adapt to extra uterine life.
Need for the study

Knowledge and attitude of the mother varies according to their educational, economic and social status. In rural or remote areas where the mothers will not know the congenital heart disease as the child get any problem in the birth they believe it is the sin carried from the parents. Atrial septal defect is one of Congenital heart disease which is the birth defect of the child also increase in life expectancy. No hospital are in a position to meet the ever increase in all the health problems of the public, whose seek treatment disease and correction. Cardiac specialized hospitals are playing major roles in treating and managing the child with Congenital Heart Disease.

The parents are discomfort when the child is diagnosed to have Atrial Septal Defect, because the treatment has impact based on their knowledge, attitude, belief, preference, economic status, education, accessibility of hospitals and specialization in cardiac care and so on.

The knowledge and attitude of mothers about Atrial septal defect improves in caring the child more effectively because caring and caressing the baby is the most lovable job in the world by the mother. The perception of Atrial Septal Defect varies in different cultures and race. So the technologies, educative materials, newspaper and articles give information about the disease and management.

Sadowski, S.I. (2009) reveals congenital malformation occurs with review of literature reporting the incidence at 6-8 per 1,000 live birth cyanotic heart disease occurred 56.9% 100,000 lives birth in US in 2005, with high rates of mater age exceed 40
yrs. In premature infants, are 12.5 per 1000 live birth, excluding Patent ductus arteriosus & Atrial septal defect. Congenital Heart disease has account for 3% of all infant death & 46% of death from congenital malformation

American heart association, (2009) reported that 1000 of infant born each year have congenital cardiovascular defect 4-10% of Atrio ventricular septal defect 8-11% of coarctation of aorta 9-14% of Tetrology of Fallot, 10-11% transposition of the great arteries, 14-16%, Ventricular Septal Defect 4*% hypo plastic left heart syndrome.

Kapoor, R., Gupta. (2008) study results given in north India is Prevalence of 26.4% was observed total Congenital Heart Disease, Ventricular Septal Defect is common lesion 21.3%, Atrial Septal Defect 18.9% & Pattern Ductus Arteriosus is 14.6%, Tetrology of Fallot commonest cyanotic disease of the heart 4.6% number of child with heart disease 82.9% was diagnosed between 0-30yrs.

In Tamilnadu the heart line hospital has completed total 500 cardiac congenital surgeries recently in 2009.

Garson. (1992) stated that the birth of an infant is an emotional time for families, endangering positive emotion, such as joys, excitement and elation, as well as increased stress. The moment an infant is diagnosed with congenital heart disease, parents experience a mixture of shock, disbelief, fear, anger and often a profound sense of sadness, in the midst of these emotion they must learn to provide for the special needs of their infant providing parents with the knowledge and skill to care for thus infant during this stressful time requires the concerted effort of a multidisciplinary team who can
provide clear, concise and consistent communication when that infant has congenital heart disease the stress of adopting to this news and learning to care for the infant is super imposed on the normal transition to parenthood.

During clinical experience in pediatric ward the investigator observed that mothers were not aware about the child condition and management of the children with congenital heart disease and surgery. The review of literature and practical experience motivated the researcher to help and equip the mothers with knowledge and attitude to promote speedy recovery during post operative period of the child and ensure survival. So the investigator was intended to conduct as a research study.

**Statement of the problem**

A study to assess the effectiveness of video assisted teaching module on knowledge and attitude among care givers of children with congenital heart disease in a selected hospital at Chennai.

**Objectives**

- To assess the existing knowledge and attitude among care givers of children with congenital heart disease.

- To determine the effectiveness of video assisted teaching module on knowledge and attitude on Congenital Heart Disease among care givers of children with Congenital Heart Disease.
• To correlate the post-test knowledge and attitude among caregivers of children with congenital heart disease.

• To find out the association between selected demographic variable such as age of care giver, religion, type of marriage, education & previous information with the post-test knowledge & attitude.

**Operational definition**

**Effectiveness**

In this study it refers to producing the desired or intended result of video assisted teaching module on Atrial Septal Defect as measured by instrument and shown by the post-test score.

**Video assisted teaching**

In this study it refers to a video visual aid used as a teaching aid with developed instructions and teaching program, designed for a group of care givers of children with Congenital Heart Disease, regarding congenital heart disease, meaning of ASD, causes, pathophysiology, signs and symptoms, diagnostic evaluation, management, complication and follow up care.
Knowledge

In this study it refers to the response given by the study participants to the questions on Anatomy and physiology, Meaning of Atrial Septal Defect, Causes, Signs and Symptoms, Diagnostic measures, Management and complication.

Attitude

In this study it refers to the mother’s way of thinking and feeling about Atrial Septal Defect, This is measured through attitude scale.

Care givers

In this study it refers to the primary care takers of children with Atrial Septal Defect.

Children

In this study it refers to the persons less than 14 years, who is with Atrial Septal Defect.

Congenital heart disease

In this study it refers to Atrial Septal Defect which is type of Congenital Heart Disease in which there is an abnormal opening in the dividing wall between the upper filling chambers of the heart (atria). It will be studied as CHD and ASD.
Hypothesis

Hypothesis was checked in 0.05 level of significance.

H1. There is significant difference between pre-test and post-test knowledge and attitude among care givers of children with Atrial Septal Defect.

H2. There is significant difference between post-test knowledge & attitude.

H3. There is significant association between selected variables such as Age of care giver, religion, type of marriage, education & previous information with post-test knowledge and attitude.

Assumption

- Knowledge level of care givers regarding Atrial Septal Defect varies with selected demographic data.

- Educational status has an impact on the knowledge and attitude of the care givers regarding Atrial Septal Defect.

- Video assisted teaching module will be more effective among care givers of children with Atrial Septal Defect.

Delimitation

The study is delimited to

- Care givers of children with Atrial Septal Defect at MIOT Hospitals.
• Caregivers who could speak and read Tamil or English.

• Data collection period is delimited to 6 weeks.

**Projected Outcome**

• An increased level of knowledge and attitude of caregivers enable them to care for their children with Atrial Septal Defect after video-assisted teaching module.

• Positive attitude will be developed by the caregivers towards the care of children with Atrial Septal Defect.

• Result of the study helps to implement the appropriate teaching programme to the group of people in the hospital or caregivers of children with Atrial Septal Defect.

• Video Assisted teaching module will be more effective.
CHAPTER II

REVIEW OF LITERATURE

Researchers almost never conduct a study in an intellectual vaccums their studies are usually undertaken; within the context of an existing ones.

- Polit Hungler.

Review of literature

Section I : Literature related to study on congenital heart disease.

Section II : Literature related to effectiveness of video assisted teaching

Literature related to study on congenital heart disease

Moon, J.R. (2009) has conducted a quasi experimental study to develop a nutrional programme for the post operative period for infants who had cardiac surgery and to evaluate the effect of the programme. Newly developed nutritional program including a feeding protocol and feeding flow was provided to the study group (n=19) and usual feeding care to the control group (n=19). The effect was analyzed in terms of total feed intake, total calorie intake, gastric residual volume, and frequency of diarrhea. Study revealed significant increased level of calorie intake and feeding amount compared to the control group.
Da Silva lopes, M.V. et, al. (2009) have done a longitudinal study to analyze the sensitivity and specificity of clinical indicators of ineffective airway clearance in children with congenital heart disease and to identify the indicators that have high predictive power. 45 children with less than one year with congenital heart disease were assessed 6 times at 2 day interval. Result reveals that a nursing diagnosis of ineffective airway clearance was made in 3% of patients on the first assessment rising to 71% on the last assessment for 40% increase for a 40% increase.

Cardiol Young, et. Al. (2009) conducted a study on impact of oral health on the quality of life of young patients with congenital cardiac disease, findings indicated that it is of paramount importance that cardiologists and their associated staff educate patients and families about oral health and other issues associated with congenital cardiac disease.

Martins Da, Silva. (2007) has conducted the study to evaluate the correlation between anthropometric measures of children with congenital heart disease with percentiles that represent their growth indicators. Anthropometric evaluations of 135 Hospitalized children with congenital heart disease were performed in specialized Hospital which revealed growth delay.

Lawaoko, S. (2007) conducted a study on factors influencing satisfaction on well being among parents of congenital heart disease. The study revealed parents of children with congenital heart disease experience psycho social morbidity to a higher degree than parents of children with other pediatric conditions and parents of healthy children. A holistic approach to the care of congenital heart disease that acknowledges the role of
parents perception of congenital heart disease, need for psychosocial resources and social vulnerability in the adaptation process is recommended to improve parental satisfaction with the care of congenital heart disease.

Da Silva, V, M. (2007) conducted a descriptive study to assess the factors predictive of growth deficit and nutritional status in children with congenital heart disease. 135 children with less than one year were evaluated preoperatively. The study revealed Nutritional defects were more evident in the case of weight-for-age index. Boys had greater deterioration in the weight-for-age index, possibly indicating acute malnutrition, and girls had worse values for the height-for-age index, indicating a risk of chronic malnutrition.

Clin, J. (2007) conducted a phenomenology study to assess the maternal experiences making a decision about heart surgery for their young children with congenital heart disease. Nine mothers were interviewed in their homes. They were invited to share their experience of family interactions and relationships while facing a decision about their child's heart surgery. The whole family is living through a stressful decision-making process. According to the results of this study, it is obvious that the caregivers and their whole families experience psychological distress, role reorganization and remodeling of family functioning.

Champsaur, G. et. al. (2006) performed complete corrections of complete atroventricular canal in children aged from four months to eight years. In 35 patients the “Composite Double Patch” technique was used, consisting of closure of true
interventricular septal defect with a Dacron patch, followed by closure of the ostium primum with a pericardial patch the mitral cleft was left intact in the last six operation only one early death was recorded among the last 15 children operated upon. Two reoperation were performed: are within one month of the first operation.

Mein, J.et.al.(2002) revealed that atriovertricular septal defect and Tetralogy of Fallot can be corrected using the two-patch technique and closure of the ventricular septal defect through a combined approach using a right ventriculotomy and right atriotomy, Routine closure of the commissure of the left portion of the atriovertricular valve results in low incidence of regurgitation

Yildiz, et, al. (2001) conducted descriptive study to determine the internal behaviors of children with congenital heart disease were handled by their mothers. 96 mothers were randomly selected. The result showed that factors influencing withdrawn aggressive behavior were low parent education (p=.000), poor economic status of the family (p=.02), aggravation of the hemodynamic status of the disease (p=.003). The factors that influence the somatic complaints were low parent education (p=.000) and severity of the hemodynamic status of the disease (p=.02). An increased in the number of children in the family seemed to have an effect on anxiety depression levels (p=.009).

Uzark, K. et. al. (1998) conducted a study by using clinical pathway approach on changing practice patterns and patient care outcomes in infants and children hospitalized for cardiac surgery. In consecutive patients admitted for selected cardiac surgical procedures before (n=69) & after (n=173) implementation of clinical pathways, outcomes
including hospital length of stay, days in the ICU, time to extubation, ordering of blood studies, costs and readmissions were compared. This revealed a significant reduction in length of hospital stay, including the days in the Intensive care unit, reduce the use of resource and improve the cost-effectiveness with beneficial outcomes for patients.

Zhonghua lizazhi, (1996) has conducted a study to assess the effectiveness of seven stages rehabilitation exercise among post-operative congenital heart disease children. This was set up according to the training principles. The 83 post-operative congenital heart disease children whose age ranging from 4 approximately 12 years was divided into two groups. The recovery of children with suggested rehabilitation training has a good effect on post operative children with congenital heart disease.

Pinaltu, (1981) has conducted a study to identify mothers perception of the importance of caring their children and their level of understanding of the basic care needs are selected information items related to caring for infants recovering from cardiac surgery, mother level of comfort or readiness to care for the infant at home. He interviewed 10 mothers of infant with congenital heart disease about their care giving concern before and one month after hospital discharge. Mother’s concern increased from the first to second interview and focused the difficulties they had learning how to anticipate and recognize the needs of their infants. They had concern about feeding, nutrient, weight gain, surgery, normal infant care, medication, crying and understanding of the disease. He postulated that a formal teaching program based on these concerns would raise the mother’s confidence.
Westman, J.et. al. (1972) has conducted an experimental study which was designed to help parents cope with the implication of diagnosis of congenital heart disease. Intervention strategy involving classification of medical information, discussion of psychological issues and a combination of two were more effective than no intervention in helping parents to gain an accurate understanding of the diagnosis and other medical information. Regardless of the intervention strategy used, satisfaction was generally high and parents anxiety decreased appear to fluctuate during the course of the visit.

**Literature related to effectiveness of video assisted teaching**

Isarabkura-Na-Ayudhyac, et, al (2010) conducted a study to examine the knowledge capacity of villagers in the Klongmai, regarding diabetes by way of action research. A health status assessment and a survey of the community were carried out and used as the basis for designing an educational video on diabetes that is accessible regardless of age and educational background. The results indicated that the devised educational materials were effective in encouraging the community's self-awareness and perception of diabetes at the significance level of 0.05.

A pre-experimental study conducted at Apollo College of Nursing in Chennai, (2008) to assess effectiveness of video programme on road safety among school children for 60 students, which revealed that the video program on road safety was effective in bringing out the positive changes in the knowledge and attitude of school children who took part in the programme. In the pre-test there was a low moderate positive correlation
(r=0.032) between knowledge and attitude where as in the post-test moderately positive correlation (r= 0.42) between the knowledge and the attitude.

Babu. (2003) indicated the effectiveness of video assisted teaching on knowledge, attitude and practice of self insulin injection procedure and the result was more significant at p<0.001 level.

Wong, V. (2003) stated that culturally sensitive educational video material using familiar metaphors can be shown to have a statistically significant effect on patient’s knowledge of medication taking concepts. The success of the video has resulted in its wide spread use in ARV roll out in South Africa.

Munikumar, (2002) found out that video modeling instruction holds good promise for application to clinical practice in facilitating knowledge acquitting reducing anxiety and improving self care behavior.

Bowering, et.al. (2000) conducted the study to attempt to video tape preparation of patients before hip replacement surgery with the aim of reducing stress and anxiety that the use of video tape decreased anxiety and stress measured in terms video of urinary cortical excretion and intra operative systemic blood pressure in patients undergoing hip replacement surgery and prepared them to cope better with the post operative pain.

Becker, et.al. (1999) supplemented by their descriptive study to compare patient recall information which nurses taught through video supplement in patients receiving
chemotherapy that this study interesting issue about the feasibility of developing patients education strategies.

Giocoma, et.al. (1999) investigated the effect of video teaching on renal transplant recipient outcomes among 59 adults undergoing renal transplantation, the quasi experimental study concluded the experimental group which received the use of video teaching had significantly greater improvement in knowledge scores in post teaching.

San Guipetti and Catanzares, (1998) study results indicated that patient and family care givers who received a discharge teaching video tape on cognitive dysfunction were more informed and better prepared to help loved compensate for cognitive dysfunction.

Weston, et.al. (1997) conducted a study to assess the effectiveness of video combined programme on knowledge and participation in research trials among prenatal women about health problems. The 90 prenatal women suggested that a patient information video combined with an information street may result in greater participation in a research trails and may increase women’s knowledge of a specific health problem and related research trail.

Sko. (1995) reemphasizes the need for development and use of pre operated videotaped patient education with over self care deficit theory used as a nursing theory frame work the intervention was piloted on four subjects who expressed positive evaluation of the alternative educational strategy.
Robertson, et. al. (1991) suggested that video tapped behavioral treatment programme have the positive behavioral treatment programme have the positive effect in reducing dental anxiety in the surgery. Patient and the sex of the subject may be an improvement variable to be incorporated in evaluating the effectiveness of this type of treatment programme.
CONCEPTUAL FRAME WORK

General system theory was developed by **Ludwig Youbertanffy (1968)** offers a perspective looking at man and nature of interacting wholes with integrates sets of properties and relationship. All living system is spent to the exchange of matter and information. A system made up of separate components. The parts rely on one another are interrelated, share for common purpose and together to form a whole.

In system model there is input, throughput, output and feedback. The aims of the study were to increase the knowledge and attitude of care givers regarding Atrial Septal Defect.

**Input**

In this study after assessing the knowledge and attitude of ASD, investigator will give video assisted teaching module regarding introduction of CHD, ASD, causes, pathophysiology, signs and symptoms, diagnosis, management, complication and follow up care.

**Throughput**

A system transforms and creates and organizers the process known as throughput, which result in a reorganization of the input. This is after video teaching programme a change takes place in the subjects regarding knowledge and attitude on Atrial Septal Defect.
Output

System expert’s products in a process known as output. In this study output encompasses the improved knowledge and attitude aspects as adequate knowledge and high attitude, moderate and inadequate knowledge, moderate and low attitude on Atrial Septal Defect among the care givers.

Feedback

Feedback is evaluation of teaching programme by using the same pre-test questionnaire after the teaching programme. It emphasizes to strengthen the input and throughput, if there is inadequacy in output. In this study feedback is needed for moderate and inadequate knowledge and moderate and low attitude on Atrial Septal Defect among the care givers.
Conceptual framework based on General System Theory
CHAPTER III

METHODOLOGY

This chapter deals with the description of research methodology adopted by the researcher to assess the effectiveness of video assisted teaching module on knowledge and attitude of caregivers of children with congenital heart disease.

Research approach

In this study quantitative study approach was used.

Research design

The research design used for the study was pre-experimental study design (one group pre-test and post-test design)

\[ 0_1 \times 0_2 \]

\(0_1\) = pre-test assessment of knowledge and attitude of caregivers of children with ASD.

\(X\) = Administration of video assisted teaching module about congenital heart disease, meaning of ASD, causes, pathophysiology, signs and symptoms, diagnostic evaluation, complication, management, and follow-up care for 20 minutes individually.

\(0_2\) = Post-test assessment of knowledge and attitude of caregivers of children with ASD.
Setting

The setting of the study was at MIOT Hospitals in cardiac pediatric ward and in outpatient department.

Population

The study population comprised of all care givers of children with Atrial Septal Defect.

Sample

In this study the samples were care givers of children with Atrial Septal Defect at MIOT Hospitals, Chennai (outpatient department, cardiac ward).

Sample size

In this study the samples were 30 care givers of children with atrial septal defect.

Sampling technique

The sampling technique used for this study was non probability convenient sampling.

Criteria for sample selection

Inclusion criteria

- Care givers of children with Atrial Septal Defect who were present in the OPD or ward.

- Care givers who were able to speak and understand Tamil or English.

- Those who were willing to participate
Exclusion criteria

- Care takers who were not willing to participate.

Data collection tool

Description of the stool

The tool consist of two parts

Section I- Part- A of the instrument, the demographic and baseline data interview guide consist of items related to demographic and other baseline data.

Section I- Part- B. The knowledge related questionnaire to care givers of children with ASD. It contained 20 questions related to Anatomy, physiology, meaning of Atrial Septal Defect, causes, signs and symptoms, diagnostic measures, management and complication.
<table>
<thead>
<tr>
<th>Content</th>
<th>Knowledge</th>
<th>No. of items</th>
<th>No. of comprehension</th>
<th>No. of item</th>
<th>Skill</th>
<th>No. of items</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>1,2</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Physiology</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Meaning of ASD</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Causes</td>
<td>5</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Signs &amp; symptoms</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>8</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Management</td>
<td>9,13,15</td>
<td>3</td>
<td>10,11</td>
<td>2</td>
<td>12,14</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Complication</td>
<td>17,19</td>
<td>2</td>
<td>18,20</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>4</td>
</tr>
</tbody>
</table>

**Attitude**

The questionnaire related to attitude was 10 questions measured by using likert 3 point scale. It contained 5 positive and 5 negative questions.
Scoring procedure

Knowledge

The questionnaire consisted of 20 questions and a score 1 was given for correct response and 0 was given for each incorrect response. The total possible score of the knowledge questionnaire was 20. The score was interpreted in percentage as follows.

Adequate knowledge  76-100%,
Moderate knowledge 51-75%,
Inadequate knowledge 0-50%

Scoring for attitude

The attitude questionnaire consisted of 10 questions, for the positive questions, the score was given for Agree 2, Disagree 1, and don’t know 0 and for the negative questions the score was given for Disagree 2, Agree 1 and don’t know 0. The total possible score of the attitude questionnaire was 20. The score was interpreted in percentage as follows,

High attitude 76-100%,
Moderate attitude 51%-75%,
Low attitude 0-50%

Section II

Video assisted teaching module consist of structured information about the congenital heart disease, meaning of ASD, causes, pathophysiology, signs and symptoms, diagnostic evaluation, management, complication and follow-up care with illustrations.
Validity and Reliability

Validity

The tool was developed through a review of literature. For content validity, the instrument was reviewed by experts in the area of study.

Reliability

Reliability of the tool was established by conducting pilot study. The reliability was calculated by Pearson’s method. The value of $r=0.99$ which shows the high correlation.

Pilot study

The pilot study was conducted on a sample of 3 care givers of children with ASD. These care givers were then excluded from the main study. The results proved that the instrument is valid and reliable and study was feasible.

Data collection procedure

A formal permission was obtained from the management, chief cardiologist, in charges of outpatient department, cardiac ward and the nursing superintendent for conducting the study. The data collection was proceeded for six weeks. As per inclusion criteria the care givers who came to outpatient department and admitted in pediatric cardiac ward were selected. 30 care givers were selected after confirming the diagnosis and treatment method. The written informed consent was obtained from the care givers after briefly explaining the study. Baseline demographic variables of care givers were gathered. The pre-test regarding structured questionnaire on knowledge and attitude
about Atrial Septal Defect was assessed and same day the video assisted teaching module regarding Atrial Septal Defect was shown for 20 minutes. For the same individual after a week the post-test knowledge and attitude was assessed through the same questionnaire by using the interview method.

**Human Rights Protection**

The pilot and main study were conducted only after approval of the research proposal by the College of Nursing and the researcher’s Institutional ethical committee. Also permission was obtained from the concerned Head of the Departments to conduct the study. Consent was obtained from all the subjects who participated in the study.
CHAPTER IV
ANALYSIS AND INTERPRETATION

This chapter will present the quantitative results of the study to assess the effectiveness of video assisted teaching module and knowledge and attitude among caregivers of children with congenital heart disease in a selected hospital at Chennai.

The findings based on the descriptive and inferential statistical analysis are presented under the following headings.

Section I: Distribution of samples according to demographic variables.

Section II: Percentage distribution of knowledge and attitude score in pre-test.

Section III: Percentage distribution of knowledge and attitude score in post-test.

Section IV: Distribution of effectiveness of knowledge and attitude score.

Section V: Correlation between post-test knowledge and attitude among caregivers of children with congenital heart disease.

Section VI: Association between the levels of post-test knowledge and attitude with demographic variables among caregivers of children with congenital heart disease.
### Table 1: Distribution of samples according to demographic variables.

N=30

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Care Giver</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Father</td>
<td>13</td>
<td>43.3</td>
</tr>
<tr>
<td>b) Mother</td>
<td>16</td>
<td>53.3</td>
</tr>
<tr>
<td>c) Others</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td><strong>2. Age of the Care Givers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) 20-30 yrs</td>
<td>14</td>
<td>46.7</td>
</tr>
<tr>
<td>b) 31-40 yrs</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td>c) 41-50 yrs</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>d) &gt; 50 yrs</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td><strong>3. Religion</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Hindu</td>
<td>22</td>
<td>73.3</td>
</tr>
<tr>
<td>b) Christian</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>c) Muslim</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>d) Others</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td><strong>4. Type of Marriage of the Parents</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Consanguinuous</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td>b) Non Consanguinuous</td>
<td>18</td>
<td>60.0</td>
</tr>
<tr>
<td><strong>5. Education of caregiver</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Illiterate</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>b) Primary</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>c) High school (6 to 10th standard).</td>
<td>12</td>
<td>40.0</td>
</tr>
<tr>
<td>d) Higher Secondary</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>e) Diploma</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>f) Graduate</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td>g) Post graduate</td>
<td>4</td>
<td>13.3</td>
</tr>
<tr>
<td><strong>6. Family income</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Rs. 1000 – 5000</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td>b) Rs. 5001 – 10000</td>
<td>8</td>
<td>26.7</td>
</tr>
<tr>
<td>c) More than Rs. 10000</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td><strong>7. Nationality</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Indian</td>
<td>27</td>
<td>90.0</td>
</tr>
<tr>
<td>b) Foreign</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>c) Non resident of India</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 1 reveals that the participants most of them were fathers and mothers, among them most of the care givers age was 14(46.7%) from 20-30 years. Out of 30 care givers 12(40%) were consanguinously married, which is one of the cause for development of CHD, and only 2(6.7%) had family history of congenital heart disease. This is a Genetic factor for occurrence of CHD. Most of them 20(66.7%) did not get previous information about ASD. Which lead to inadequate knowledge and less attitude about ASD. 12(40%) of the care givers have completed only High School and may not have proper understanding about ASD.

<table>
<thead>
<tr>
<th>8. Duration of Awareness about the illness.</th>
<th>9</th>
<th>30.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Less than one year</td>
<td>9</td>
<td>30.0</td>
</tr>
<tr>
<td>b) More than one year</td>
<td>21</td>
<td>70.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9. Family History of congenital heart disease.</th>
<th>2</th>
<th>6.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Yes</td>
<td>28</td>
<td>93.3</td>
</tr>
<tr>
<td>b) No</td>
<td>2</td>
<td>6.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10. Previous information about ASD</th>
<th>2</th>
<th>6.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Yes</td>
<td>10</td>
<td>33.3</td>
</tr>
<tr>
<td>b) No</td>
<td>20</td>
<td>66.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10a. If yes source of information</th>
<th>2</th>
<th>6.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Friends &amp; relatives</td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td>b) Health Professional</td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td>c) Mass Media</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>d) Others</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10.b. If no source of information</th>
<th>2</th>
<th>6.7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>23.3</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>6.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>11. Place of Residence</th>
<th>11</th>
<th>36.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Urban</td>
<td>11</td>
<td>36.7</td>
</tr>
<tr>
<td>b) Suburban</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td>c) Rural</td>
<td>16</td>
<td>53.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12. Mother Tongue</th>
<th>25</th>
<th>83.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Tamil</td>
<td>25</td>
<td>83.3</td>
</tr>
<tr>
<td>b) Colombo</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>c) Nigeria</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>d) Malayalam</td>
<td>1</td>
<td>3.3</td>
</tr>
<tr>
<td>e) Others</td>
<td>2</td>
<td>6.7</td>
</tr>
</tbody>
</table>
**SECTION II**

**Table 2: Mean Knowledge score on Congenital Heart Disease among Care givers in Pre-test**

<table>
<thead>
<tr>
<th>Knowledge Aspects</th>
<th>Descriptive Statistics</th>
<th>Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Anatomy</td>
<td>50.0</td>
<td>32.16</td>
</tr>
<tr>
<td>Physiology</td>
<td>80.0</td>
<td>40.68</td>
</tr>
<tr>
<td>Meaning</td>
<td>23.33</td>
<td>43.01</td>
</tr>
<tr>
<td>Causes</td>
<td>80.0</td>
<td>40.68</td>
</tr>
<tr>
<td>Signs &amp; Symptoms</td>
<td>56.67</td>
<td>43.02</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>86.67</td>
<td>34.57</td>
</tr>
<tr>
<td>Management</td>
<td>55.00</td>
<td>14.90</td>
</tr>
<tr>
<td>Complication</td>
<td>44.17</td>
<td>24.28</td>
</tr>
<tr>
<td>Over all knowledge</td>
<td>55.00</td>
<td>14.62</td>
</tr>
</tbody>
</table>

Table 2 shows that the high knowledge mean score was found in diagnosis of congenital heart disease with the mean score M=86.67 in pre-test, which indicates most of the care givers may got an exposure to diagnosis of their children for congenital heart disease.
Figure 1: Distribution of Level of Knowledge on Congenital Heart Disease among Care givers in Pre-test

Figure 1 Shows that most of them 50% had inadequate knowledge on atrial septal defect. So, this gives an important result that they need education on ASD.
Table 3: Mean Attitude Score on Congenital Heart Disease among Caregivers in Pre-test

<table>
<thead>
<tr>
<th>Attitude Score</th>
<th>Descriptive Statistics</th>
<th>Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Pre Test</td>
<td>80.33</td>
<td>14.38</td>
</tr>
</tbody>
</table>

Table 3 shows that the mean attitude score of caregivers on congenital heart disease was 80.33 with standard deviation of 14.38.
Figure 2: Distribution of Level of Attitude on Congenital Heart Disease among Caregivers in Pre-test

Figure 2 reveals that very less number 1 (3.3%) of caregivers had low attitude and 13(43.3%) were moderate attitude towards the management and follow up care of ASD, which implied that they need education on ASD.
Table 4: Mean Knowledge on Congenital Heart Disease among care givers in post-test

<table>
<thead>
<tr>
<th>Knowledge Aspects</th>
<th>Descriptive Statistics</th>
<th>Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Anatomy</td>
<td>88.33</td>
<td>25.20</td>
</tr>
<tr>
<td>Physiology</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>Meaning</td>
<td>73.33</td>
<td>44.98</td>
</tr>
<tr>
<td>Causes</td>
<td>90.33</td>
<td>30.51</td>
</tr>
<tr>
<td>Signs &amp; Symptoms</td>
<td>73.33</td>
<td>36.51</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>100.0</td>
<td>0.00</td>
</tr>
<tr>
<td>Management</td>
<td>80.42</td>
<td>14.93</td>
</tr>
<tr>
<td>Complication</td>
<td>65.83</td>
<td>25.93</td>
</tr>
<tr>
<td>Overall Knowledge</td>
<td>79.67</td>
<td>13.58</td>
</tr>
</tbody>
</table>

Table 4 shows that the caregivers had complete 100% knowledge on physiology and diagnosis on congenital heart disease in post-test score. The overall mean score is 79.67% which indicates that the video teaching on ASD is more effective.
Figure 3: Distribution of Level of Knowledge on Congenital Heart Disease among care givers in post-test

Figure 3 show that 63.3% of care givers had adequate knowledge in post-test. It implies that the video teaching on ASD is more comprehensive.
Table 5: Mean Attitude score on Congenital Heart Disease among care givers in post-test

<table>
<thead>
<tr>
<th>Attitude Score</th>
<th>Descriptive Statistics</th>
<th>Ranges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Post Test</td>
<td>93.67</td>
<td>9.64</td>
</tr>
</tbody>
</table>

Table 5 reveals that the caregivers had mean attitude score of 93.67 with standard deviation 9.64 on congenital heart disease in post-test. The video teaching is improved the care giver’s attitude about ASD and its management.
Figure 4: Distribution of Level of Attitude on Congenital Heart Disease among Caregivers in post-test

Figure 4 shows that most of the caregivers 90% have gained high attitude score in post-test and none of them have low attitude towards ASD. This implies that the video teaching has improved the attitude of the care givers about ASD.
Table 6: Effectiveness of Knowledge on Congenital Heart Disease among Caregivers

<table>
<thead>
<tr>
<th>Knowledge Aspects</th>
<th>Improvement Knowledge (n=50)</th>
<th>Paired t test and P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>Anatomy</td>
<td>38.33</td>
<td>31.30</td>
</tr>
<tr>
<td>Physiology</td>
<td>20.00</td>
<td>40.68</td>
</tr>
<tr>
<td>Meaning</td>
<td>71.86</td>
<td>44.69</td>
</tr>
<tr>
<td>Causes</td>
<td>10.0</td>
<td>30.51</td>
</tr>
<tr>
<td>Signs &amp; Symptoms</td>
<td>16.67</td>
<td>40.11</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>13.33</td>
<td>34.57</td>
</tr>
<tr>
<td>Management</td>
<td>25.41</td>
<td>16.57</td>
</tr>
<tr>
<td>Complication</td>
<td>21.67</td>
<td>26.85</td>
</tr>
<tr>
<td>Overall Knowledge</td>
<td>24.67</td>
<td>9.99</td>
</tr>
</tbody>
</table>

N.S. Not significant, L.O.S * P<0.05, ***P<0.001 Level.

Table 6 interprets that the overall improvement knowledge mean score was 24.67 with standard deviation of 9.99. The t value 13.518 and which is highly significant at P < 0.001. Hence the research hypothesis H1 is accepted.
Table 7: Effectiveness of Attitude Score on Congenital Heart Disease among Caregivers

<table>
<thead>
<tr>
<th>Effective Attitude Score</th>
<th>Descriptive Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Mean</td>
<td>13.33</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>10.45</td>
</tr>
<tr>
<td>Paired t value</td>
<td>$t = 6.989$</td>
</tr>
<tr>
<td>Significant P value</td>
<td>$P = 0.000$ Significant at $\text{P}&lt;0.001$</td>
</tr>
</tbody>
</table>

Table 7 shows that the effective mean attitude score was 13.33 with standard deviation 10.45, the paired t value of 6.989, which is significant at $P < 0.001$. Hence the research hypothesis H1 is accepted.
Figure 5: Distribution of overall pre and post test mean knowledge and attitude score.

Figure 5 shows that the mean post-test knowledge score was 79.67% and the attitude score was 93.67%. This implies that the video assisted teaching module on ASD is more effective in teaching method.
Table 8: Correlation between post-test knowledge and attitude among care givers of children with congenital heart disease.

<table>
<thead>
<tr>
<th>Knowledge Score</th>
<th>Attitude Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Test</td>
<td>Post Test</td>
</tr>
<tr>
<td>r – value &amp;</td>
<td>r – value &amp;</td>
</tr>
<tr>
<td>P value</td>
<td>P value</td>
</tr>
<tr>
<td>Pre Test</td>
<td>r = 0.262</td>
</tr>
<tr>
<td></td>
<td>P = 161 (N.S)</td>
</tr>
<tr>
<td>Post Test</td>
<td>r = 0.556, P = 0.001</td>
</tr>
<tr>
<td></td>
<td>(Significant at P&lt;0.001)</td>
</tr>
</tbody>
</table>

Table 8 reveals that the r value of post-test knowledge and the attitude correlation is significant at P < 0.001. Hence the research hypothesis H2 is accepted.
### Table 9: Association between Level of Knowledge on Congenital Heart Disease and Demographic variables among care givers in post-test.

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Moderately Knowledge (51-75%)</th>
<th>Adequate Knowledge (75-100%)</th>
<th>Chi Square value &amp; P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. %</td>
<td>No. %</td>
<td></td>
</tr>
<tr>
<td>1. Care Givers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Father</td>
<td>2 15.4</td>
<td>11 84.6</td>
<td>$\chi^2 = 5.488$, d.f = 2</td>
</tr>
<tr>
<td>b) Mother</td>
<td>8 50.0</td>
<td>8 50.0</td>
<td>$P = 0.064$</td>
</tr>
<tr>
<td>c) Others</td>
<td>1 100.0</td>
<td>0 0.0</td>
<td>N.S)</td>
</tr>
<tr>
<td>2. Age of the Care Givers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) 20-30 yrs</td>
<td>7 50.0</td>
<td>7 50.0</td>
<td>$\chi^2 = 5.011$, d.f = 3</td>
</tr>
<tr>
<td>b) 31-40 yrs</td>
<td>2 18.2</td>
<td>9 81.8</td>
<td>P = 0.171</td>
</tr>
<tr>
<td>c) 41-50 yrs</td>
<td>2 66.7</td>
<td>1 33.3 (N.S)</td>
<td></td>
</tr>
<tr>
<td>d) &gt; 50 yrs</td>
<td>0 0.0</td>
<td>2 100.0</td>
<td></td>
</tr>
<tr>
<td>3. Religion</td>
<td></td>
<td></td>
<td>$\chi^2 = 4.358$, d.f = 3</td>
</tr>
<tr>
<td>a) Hindu</td>
<td>10 45.5</td>
<td>12 54.5</td>
<td>P = 0.225</td>
</tr>
<tr>
<td>b) Christian</td>
<td>0 0.0</td>
<td>1 100.0</td>
<td></td>
</tr>
<tr>
<td>c) Muslim</td>
<td>0 0.0</td>
<td>5 100.0 (N.S)</td>
<td></td>
</tr>
<tr>
<td>d) Others</td>
<td>1 50.0</td>
<td>1 50.0</td>
<td></td>
</tr>
<tr>
<td>4. Type of Marriage of Parents</td>
<td></td>
<td></td>
<td>$\chi^2 = 0.096$, d.f = 1</td>
</tr>
<tr>
<td>a) Consanguinuous</td>
<td>4 33.3</td>
<td>8 66.7</td>
<td>P = 0.757 (N.S)</td>
</tr>
<tr>
<td>b) Non Consanguinuous</td>
<td>7 38.9</td>
<td>11 61.1</td>
<td></td>
</tr>
<tr>
<td>5. Educational Status</td>
<td></td>
<td></td>
<td>$\chi^2 = 6.675$, d.f = 6</td>
</tr>
<tr>
<td>a) Illiterate</td>
<td>1 50.0</td>
<td>1 50.0</td>
<td>P = 0.352</td>
</tr>
<tr>
<td>b) Primary</td>
<td>1 50.0</td>
<td>1 50.0</td>
<td></td>
</tr>
<tr>
<td>c) High school</td>
<td>7 58.3</td>
<td>5 41.7 (N.S)</td>
<td></td>
</tr>
<tr>
<td>d) Hr. Sec.</td>
<td>0 0.0</td>
<td>2 100.0</td>
<td></td>
</tr>
<tr>
<td>e) Diploma</td>
<td>1 25.0</td>
<td>3 75.0</td>
<td></td>
</tr>
<tr>
<td>f) Graduate</td>
<td>1 25.0</td>
<td>3 75.0</td>
<td></td>
</tr>
<tr>
<td>g) Post graduate</td>
<td>0 0.0</td>
<td>4 100.0</td>
<td></td>
</tr>
<tr>
<td>6. Family income</td>
<td></td>
<td></td>
<td>$\chi^2 = 3.135$, d.f = 2</td>
</tr>
<tr>
<td>a) Rs. 1000 – 5000</td>
<td>6 54.5</td>
<td>5 45.5</td>
<td>P = 0.209</td>
</tr>
<tr>
<td>b) Rs. 5001 – 10000</td>
<td>3 37.5</td>
<td>5 62.5</td>
<td></td>
</tr>
<tr>
<td>c) More than Rs. 10000</td>
<td>2 18.2</td>
<td>9 81.8 (N.S)</td>
<td></td>
</tr>
</tbody>
</table>
Table 9 shows that the demographic variables have no significant association with post-test knowledge of caregivers on congenital heart disease. So the hypothesis H3 is rejected.
Table 10: Association between Level of Attitude on Congenital Heart Disease and Demographic variables among care givers in post-test

N=30

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Moderate Attitude (51-75%)</th>
<th>High Attitude (75-100%)</th>
<th>Chi Square value &amp; P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>1. Care Givers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Father</td>
<td>0</td>
<td>0.0</td>
<td>13</td>
</tr>
<tr>
<td>b) Mother</td>
<td>3</td>
<td>18.8</td>
<td>13</td>
</tr>
<tr>
<td>c) Others</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>2. Age of the Care Givers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) 20-30 yrs</td>
<td>2</td>
<td>14.3</td>
<td>12</td>
</tr>
<tr>
<td>b) 31-40 yrs</td>
<td>1</td>
<td>9.1</td>
<td>10</td>
</tr>
<tr>
<td>c) 41-50 yrs</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
</tr>
<tr>
<td>d) &gt;50 yrs</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
<tr>
<td>3. Religion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Hindu</td>
<td>3</td>
<td>13.6</td>
<td>19</td>
</tr>
<tr>
<td>b) Christian</td>
<td>0</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>c) Muslim</td>
<td>0</td>
<td>0.0</td>
<td>5</td>
</tr>
<tr>
<td>d) Others</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
<tr>
<td>4. Type of Marriage of Parents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Consanguinous</td>
<td>1</td>
<td>8.3</td>
<td>11</td>
</tr>
<tr>
<td>b) Non Consanguinous</td>
<td>2</td>
<td>11.1</td>
<td>16</td>
</tr>
<tr>
<td>5. Educational of Care giver</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Illiterate</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
<tr>
<td>b) Primary</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
<tr>
<td>c) High school</td>
<td>2</td>
<td>16.7</td>
<td>10</td>
</tr>
<tr>
<td>d) Hr. Sec.</td>
<td>0</td>
<td>0.0</td>
<td>2</td>
</tr>
<tr>
<td>e) Diploma</td>
<td>1</td>
<td>25.0</td>
<td>3</td>
</tr>
<tr>
<td>f) Graduate</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
</tr>
<tr>
<td>g) Post graduate</td>
<td>0</td>
<td>0.0</td>
<td>4</td>
</tr>
<tr>
<td>6. Family income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Rs. 1000 – 5000</td>
<td>2</td>
<td>18.2</td>
<td>9</td>
</tr>
<tr>
<td>b) Rs. 5001 – 10000</td>
<td>1</td>
<td>12.5</td>
<td>7</td>
</tr>
</tbody>
</table>
Table 10 shows that the demographic variables have no significant association with post-test attitude of caregivers on congenital heart disease. So the research hypothesis H3 is rejected. Only the mother tongue has the significant association with post-test attitude.
CHAPTER V

DISCUSSION

The present study was aimed at teaching care givers who takes care for children with Congenital Heart Disease in order to make them aware of children’s behaviors and to manage it and take care of them at home.

This is a one group pre-test and post-test experimental study intended to assess the effectiveness of video assisted teaching module on knowledge and attitude among care givers of children with congenital heart disease in a selected hospital at Chennai.

Table 1 reveals that the participants most of them were 13(43.3%) fathers and 16(53.3%) mothers, among them most of the care givers age was 14(46.7%) between 20 and 30 years. Out of 30 care givers 12(40%) were consanguinously married, which is one of the cause for development of CHD, and only 2(6.7%) had family history of congenital heart disease. Most of them 20(66.7%) did not get previous information about ASD. Which lead to inadequate knowledge and less attitude about ASD. 12(40%) of the care givers have completed only High School and may not have proper understanding about ASD. Most of the care givers 11(36.7%) income was Rs.1,000 to Rs.5,000 per month, which they can’t take the child for medical follow up. According to the duration of awareness on CHD 9(30%) had known the information for less than one year.

The first objective of the study was to assess the existing knowledge and attitude among care givers of children with congenital heart disease.
As per figure (1) most of the care givers 15 (50%) had inadequate knowledge and 13 (43.3%) had moderate knowledge. Table (2) shows that the overall mean knowledge score was 55.00 with standard deviation 14.62. Attitude was assessed through likert scale. Figure (2) shows that in pre-test the care givers 1(3.3%) had low attitude and 16 (53.3%) had moderate attitude. The mean pre-test attitude score was 80.33 with standard deviation 14.38 as given in table (3).

So the investigator found that the most of the care givers had inadequate knowledge and moderate attitude. So the results strongly reveal they need a video teaching on ASD.

The second objective was to assess the effectiveness of video assisted teaching module on knowledge and attitude on congenital heart disease among care givers of children with congenital heart disease. The corresponding research hypothesis H1 stated that there is significant difference between pre-test and post-test knowledge and attitude among care givers of children with Atrial Septal Defect.

Measures were provided to improve the knowledge and attitude through video teaching regarding atrial septal defect and its management was given. As per table (6) the obtained t value in knowledge was 13.518 at the level of P= 0.000, in attitude the t value was 6.989 at the level of P= 0.000 as given in table (7). Table (4) shows that the mean post-test knowledge score was 79.67 and post-test mean attitude score was 93.67 as given in table (5), the mean score of post-test knowledge and attitude was higher than the pre-test knowledge and attitude.
The investigator found that there is an improvement in knowledge and attitude of caregivers on congenital heart disease after the video teaching programme. The obtained t value for post-test knowledge and attitude was significant at P<0.001 level. So the research hypothesis H1 is accepted.

Similarly many studies show that the video teaching is an effective method of teaching. Wong, (2003) who stated that the culturally sensitive educational video material using familiar metaphors can be shown to have a statistically significant effect on patient’s knowledge of medication taking concepts.

Pinalti, (1981) conducted a study to assess the mother’s perception of the importance of carrying the children and their level of understanding of basic care needs, preselected information items related to carrying for infants recovering from cardiac surgery, mother’s level of comfort or readiness to care for the infant at home. He interviewed ten mothers of infants with congenital heart disease about their care giving concerns before and the month after hospital discharge. Mother’s concerns increased from the first to second interview and focused the difficulties they had learning how to anticipate and recognize the needs of their infants. They had concerns about feeding, nutrition, weight gain, surgery, normal infants care, medication, crying and understanding of the disease. He postulated that a formal teaching program based on these concerns would raise the mother’s confidence. Majority of the participant had gained knowledge and attitude in post-test, mainly due to the education given through the video on ASD.
So the investigator found that the knowledge and attitude of the care giver is increased in post-test. This increase in knowledge and attitude is due to video teaching programme.

The third objective was to assess the correlation between the post-test knowledge and attitude among caregivers of children with congenital heart disease. The corresponding research hypothesis H2, it was stated that there is significant difference between post-test knowledge and attitude.

The correlation score between the post-test knowledge and attitude of table (8) shows that the r value was 0.556. This reveals that improvement in knowledge significantly influences the attitude of caregivers on congenital heart disease. So this improvement shows that the obtained r value was significant at P = 0.001. It shows high correlation of knowledge and attitude. Hence the research hypothesis H2 is accepted.

These findings supported by similar study conducted at Apollo College of Nursing in Chennai, (2008) and revealed that the video program on road safety was effective in bringing out the positive changes in the knowledge and attitude of school children who took part in the programme. In the pre-test there was a low moderate positive correlation r = 0.032 between knowledge and attitude where as in the post-test moderately positive correlation r = 0.42 between the knowledge and the attitude.

The fourth objective was to associate between selected demographic variables such as age of care giver, religion, type of marriage, education & previous information with the post-test knowledge & attitude. The corresponding research
hypothesis H3, it was stated that there is significant association between selected variables with post-test knowledge and attitude.

Table (9) shows that the demographic variables, caregiver, age of the caregiver, religion, type of marriage, educational status, family income, nationality, duration of awareness of congenital heart disease, and the family history of congenital heart disease, previous information and the place of residence and the mother tongue were not associated with post-test knowledge. But as per table (10) the post-test attitude of the caregivers has association only with mother tongue. The other variables have no association. So it reveals that there is no significant association between post-test knowledge and attitude score at P < 0.05 level, so the hypothesis H3 is rejected.

Robertson, et.al (1991) suggested that video tapped behavioral treatment programme have the positive behavioral treatment programme, have the positive effect in reducing dental anxiety in the surgery. Patient and the sex of the subject may be an improvement variable to be incorporated in evaluating the effectiveness of this type of treatment programme. So the investigator found that the video teaching is more effective in improving the knowledge and attitude of the caregivers.
CHAPTER VI

SUMMARY, CONCLUSION, LIMITATIONS, IMPLICATIONS AND RECOMMENDATIONS

Summary

A study was conducted to assess the effectiveness of video assisted teaching module on knowledge and attitude among care givers of children with congenital heart disease in a selected hospital at Chennai.

The following objectives were set for the study

- To assess the existing knowledge and attitude among care givers of children with congenital heart disease.

- To determine the effectiveness of video assisted teaching module on knowledge and attitude on congenital heart disease among care givers of children with congenital heart disease.

- To correlate the post-test knowledge and attitude among care givers of children with congenital heart disease.

- To find out the association between selected demographic variable such as age of care giver, religion, type of marriage, education & previous information with the post-test knowledge & attitude.
The conceptual framework was adapted for this study was general system theory and the methodology used was the quantitative approach to assess the effectiveness of video assisted teaching module, the research design used for the study was pre-experimental study design and setting was at MIOT Hospitals cardiac pediatric ward and the outpatient department. The study population comprised of all caregivers of children with Atrial Septal Disease. The technique used was non probability convenient sampling technique and 30 caregivers were interviewed.

The study results proved that the hypothesis was tested at 0.05 levels. That there was a gain in knowledge and attitude of caregiver regarding congenital heart disease and management. As a nursing intervention video teaching on congenital heart disease was selected as independent variables with the knowledge and attitude gained in post-test was dependent variables.

**Major findings of the study are as follows:**

The distribution of demographic variables shows that most of them were 13(43.3%) fathers and 16(53.3%) mother, among them most of the care givers age was 14(46.7%) between 20 and 30 years. Out of 30 care givers 12(40%) were consanguineously married, which is one of the cause for development of CHD, and only 2(6.7%) had family history of congenital heart disease. Most of them 20(66.7%) did not get previous information about ASD. Which lead to inadequate knowledge and less attitude about ASD. 12(40%) of the care givers have completed only High School and may not have proper understanding about ASD. Most of the care givers 11(36.7%)
income was Rs.1,000 to Rs.5,000 per month, which they can’t take the child for medical follow up. According to the duration of awareness on CHD 9(30%) had known the information for less than one year.

In pre and post test mean score of knowledge of this study was 55 and 79.67 respectively, the mean attitude score of the study was 80.33 and 93.67 which shows improvement in knowledge and attitude. So the H1 research hypothesis is accepted.

The obtained t value of knowledge of the study was 13.518 and the mean attitude score t value of 6.989, which was highly significant at P<0.001 level, which indicated the effectiveness of video programme on atrial septal defect.

The co-relation between post-test knowledge and attitude obtained value of r=0.556. It is significant at P< 0.001, shows high correlation. So the hypothesis H2 is accepted.

There was no significant association of demographic variables with post-test knowledge at P < 0.05 level, so the hypothesis H3 is rejected.

There was no association of demographic variables with post-test attitude except the mother tongue.

**Conclusion**

The overall pre-test and post-test mean knowledge score was 55% and 79.67%, the mean attitude score was 80.33% and 93.67% respectively. The t value shows that effectiveness of knowledge and attitude score on video teaching programme was highly
significant at P< 0.001 level. The educative measure shows that significant improvement in knowledge, attitude regarding care of children with congenital heart disease.

**Limitations**

- The size of the sample was only 30 which restrict the generalization.
- The data collection period was limited to six weeks.
- Study restricted only to the care givers.

**Implications**

Numerous implications can be drawn from the present study for practice which promotes and creates new dimension to nursing profession.

**Nursing Education**

- Nursing education aims for the future nurses who play a major role in providing care to the patients and families, which includes teaching also. So the nursing students should have adequate knowledge to communicate with the care givers and patients.
- This study also helps the students to use an effective teaching aid for the care givers and to improve the practice of mothers on the basis of needs.
Nursing Practice

- These study findings can be used to define about Atrial Septal Defect, its management and need of the child.

- The nurses can use video assisted teaching method for better understanding of the disease condition and home care management.

- This study helps the nurse to give an effective teaching with appropriate pictures for better understanding of the Atrial Septal Defect and its management through video and also it save time and energy because it can be reproduced whenever required.

Nursing Administration

- Nursing administrators could develop standards, protocol and various audio visual aids for teaching the care givers.

- Nursing administrators can plan and conduct the in-service education for the staff regarding communication through video assisted teaching method.

- The nurse administrators must initiate a plan to validate the video assisted teaching method prepared by the any researchers and can use this when the child is admitted with congenital heart disease.
**Nursing Research**

- For improving the knowledge and attitude of the care givers various teaching method can be used through research. Also the effectiveness of the research study can be made by further implication of study.

- The nurses can utilize evidence based practice to improve the knowledge and attitude of the care giver.

- It helps to educate the parents effectively and recommends policy changes and promotes the nursing status and image. So the nurses are encouraged to do research on various methods of teaching to improve the knowledge and attitude of the parents.

**Recommendations**

- A true experimental study can be conducted by using the control group.

- The study can be conducted for a large group to validate the findings for generalization.

- The study can be conducted to know the practice of management by the care givers.

- A comparative study can be conducted in different hospitals to identify the level of understanding of the care giver with different age groups.
• A similar study can be done by using the various methods of teaching aids like programmed instruction, Self Instruction Module, IEC and interactive video and audio methods

• A similar study can be done to compare with other cardiac problems or any associated problems.
REFERENCES


APPENDICES
APPENDIX - I

LETTER SEEKING PERMISSION TO CONDUCT A RESEARCH STUDY

From
Prof. Mrs. Anigrace Kalaimathi,
M.Sc., (N), PGDNa., DQA
Principal.

To
Dr. Sivakumar M.D., D.M., DNB.
Chief Pediatric Cardiologist,
MIOT Hospitals,
Chennai

Dear Sir/ Madam,

Ms. A. Yamunavathy, M.Sc., (N) II year student is going to do a research on “A Study to assess the effectiveness of video-assisted teaching module on knowledge and attitude among care givers of children with congenital heart disease”. So, I request you kindly allow her to do the project in your department.

Thanking you.

Sincerely,

Prof. Mrs. Ani Grace Kalaimathi.

Prof. Mrs. ANIGRACE KALAIMATHI
M.Sc., (N), PGDNa., DQA, PH.D.,
Principal,
MIOT COLLEGE OF NURSING
No. 1/70, Mariaman Koli Street,
Mugdhiyakam, Chennai - 600 116.

MIOT MEDICAL & EDUCATIONAL TRUST
1/70, Mariaman Koli Street, Mugdhiyakam, Chennai - 116.
Ph: 64547820 Fax: 91-44-22401168
E-mail: miot@vsnl.com www.miothospitals.com
I am **YAMUNAVATHY** MSc Nursing II year student at MIOT College of Nursing, Chennai.

As a part of my study research on pre experimental study to assess the effectiveness of video assisted teaching module on knowledge and attitude among care givers of children with congenital heart disease is selected to be conducted. The finding of the study will be helpful in utilizing the intervention for the care givers of children with congenital heart disease.

I hereby seek your consent and cooperation to participate in the study. Please be frank and honest in your response. The information collected will be kept confidentially and anonymity.

Signature of the investigator.

I ___________________ hereby consent to participate and undergo the study

Date:

Place:                  Signature of the participant.
APPENDIX - III

SECTION -I

Part A

Demographic data of care givers of children with CHD at MIOT Hospitals.

INSTRUCTION
Please read every question carefully and put tick mark [✓] and indicate the response that you choose in the space provided.

1. Care giver
   a) Father
   b) Mother
   c) Others

2. Age of the care giver
   a) 20-30 years
   b) 31-40 years
   c) 41-50 years
   d) Above 50 years

3. Religion
   a) Hindu
   b) Christian
   c) Muslim
   d) Others

4. Type of marriage of the parents
   a) Consanguinous
   b) Non consanguinous

5. Education of the care giver
   a) Illiterate
   b) Primary
   c) High school (6-10)
   d) Higher secondary
   e) Diploma
   f) Graduate
   g) Post graduate
6. Family income per month
   a) Rs. 1000-5000
   b) Rs.5001-10,000
   c) Rs. > 10,000

7. Nationality
   a) Indian
   b) Foreigner
   c) Non resident of India

8. Duration of awareness about the illness
   a) Less than one year
   b) More than one year

9. Family history of congenital heart disease
   a) Yes
   b) No

10. Previous information about ASD, Yes/No [If yes, source of information]
   a) Friends and relatives
   b) Health professionals
   c) Teachers
   d) Mass media
   e) Others

11. Place of residence
    a) Urban
    b) Suburban
    c) Rural

12. Mother tongue
    a) Tamil
    b) Colombo
    c) Nigeria
    d) Malayalam
    e) Other
PART - B
QUESTIONNAIRE TO ASSESS THE KNOWLEDGE ON ATRIAL SEPTAL DEFECT

ANATOMY
(1) What is congenital heart disease?
   (a) Structural defect of the heart
   (b) Functional defect of the heart.
   (c) Enlargement of the heart.
   (d) Infection of the heart. [ ]
(2) When does congenital heart disease occur?
   (a) After birth.
   (b) After puberty.
   (c) At old age.
   (d) During development of the fetus. [ ]

PHYSIOLOGY
(3) What is the function of the heart?
   (a) Metabolic function.
   (b) Blood circulation.
   (c) Excretory function.
   (d) Air circulation. [ ]

MEANING
(4) What is atrial septal defect?
   (a) Connection between mitral valve and pulmonary valve
   (b) Connection between right and left atrium
   (c) Connection between right and left ventricle
   (d) Connection between atrio ventricular valve. [ ]

CAUSES
(5) What is the cause for atrial septal defect?
   (a) Genetic factor and developmental abnormalities.
   (b) Infections of the heart.
   (c) Injury to the heart
(d) Sin of the parents.

SIGNS AND SYMPTOMS

(6) What are the signs and symptoms of atrial septal defect?
   (a) Cyanosis
   (b) Weight gain
   (c) Dyspnoea and respiratory infection.
   (d) Vomiting and nausea.

(7) Which condition leads to poor weight gain from the following?
   (a) Congenital heart disease
   (b) Cold
   (c) Fracture
   (d) Anemia.

DIAGNOSIS

(8) Which is the confirmatory diagnosis for atrial septal defect?
   (a) Blood test
   (b) ECHO cardiography
   (c) X ray test
   (d) Ultra sound test.

MANAGEMENT

(9) How is atrial septal defect treated?
   (a) Natural healing
   (b) Antibiotics
   (c) Surgery
   (d) None.

(10) Why antibiotics are given to children with atrial septal defect?
    (a) To prevent endocarditis
    (b) To treat dental problems
    (c) To treat the defect of the heart
    (d) To circulate the blood.

(11) Which medicine is given after heart surgery to improve blood circulation?
    (a) Blood thinning medicine
    (b) Pain control medicine
    (c) Anti-inflammatory drugs
    (d) Anti microbial drug.
(12) Which type of food you can give to child after surgery?
   (a) Normal diet with high calorie diet
   (b) Salt restricted diet
   (c) Fluid restricted diet
   (d) Protein restricted diet. 

(13) Why coughing and deep breathing exercise to be done after the surgery?
   (a) Improve the lung expansion
   (b) Gives rest to the lung
   (c) Restrict the activity of the child
   (d) Improve the blood circulation. 

(14) Which is the exercise to be performed immediately after the cardiac surgery once conscious is regained?
   (a) Deep breathing and coughing exercise
   (b) Foot and leg exercise
   (c) Range of motion exercise
   (d) Knee rolling exercise.

(15) What are the management to be followed in the home after surgery?
   (a) Adequate rest, sleep and medication intake
   (b) Restricted dietary intake
   (c) Restricted activity
   (d) Restricted fluid intake. 

(16) How will you promote the growth and development in child after surgery?
   (a) Adequate nutrition
   (b) Restricted activities
   (c) Over protection of the child
   (e) Complete rest at home.

COMPLICATION

(17) What will happen if the child is not taken to hospital for treatment?
   (a) Heal naturally
   (b) Child get frequent upper respiratory infection
   (c) Child will die
   (d) Nothing will occur.
(18) When the voice change will occur in child with atrial septal defect?
   (a) Before surgery
   (b) After surgery
   (c) After discharge
   (d) No voice change.           [ ]

(19) What is the complication of atrial septal defect?
   (a) Growth retardation
   (b) Decreased urine output
   (c) Decreased hemoglobin
   (d) Cyanosis of the body.      [ ]

(20) What is the post operative complication of atrial septal defect?
   (a) Growth retardation
   (b) Infection
   (c) Weight loss
   (d) Cardiac failure.           [ ]

KEY ANSWERS

(1) a, (2) d, (3) b, (4) b, (5) a, (6) c, (7) a, (8) b, (9) c, (10) a, (11) a, (12) a, (13) a (14)a, (15) a, (16) a, (17) b, (18) b, (19) a, (20) b.
### ATTITUDE QUESTIONNAIRE BASED ON LIKERT 3 POINT SCALE

<table>
<thead>
<tr>
<th>Questions</th>
<th>Agree</th>
<th>Disagree</th>
<th>Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When the child is observed with palpitation and breathing difficulty should be taken to Cardiologist.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Atrial septal defect is treated by witch craft.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Atrial septal defect is the birth defect of the child</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Congenital heart disease occurs due to sin of the parents.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Atrial Septal defect can lead to frequent upper respiratory tract infection.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Regular intake of blood thinning medicine will obstruct the blood circulation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. High intake of calorie and protein rich diet increases the weight of the child after heart surgery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. The child with atrial septal defect need not to protected from excessive activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Follow up care is necessary for the congenital heart disease to observe for prognosis.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Normal dietary intake will affect the child growth and development in children with atrial septal defect</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Positive questions: 1, 3, 5, 7, 9. Negative questions: 2, 4, 6, 8, 10
mDg"j« III
āÇî - 1
ghf« - m

āwÉ īja; nfshW cŶs FHpjia ghJfh¥gtÇ‹ thœēaš ĖtušfŶ
Ñœf©l ṁbhU T%oWfSÏF« rÇahd gâiy bfhLjÎngê fêfêäš
[ √ ]FÊÆLf.

1. FHpjia ghJfh¥gt®
   m) m¥gh
   M) m ø kh
   i) k%owt®

2. FHpjia ghJfh¥gtÇ‹ taJ
   m) 20 - 30 taJ
   M) 31 - 40 taJ
   i) 41 - 50 taJ
   <) 50 taJ; F nkš

3. kj«
   m) īJ
   M) »ãJt®
   i) KØÊ«
   <) k%owit

4. bg%onwhÇ‹ âUkz Kiw
   m) cwî Kiw âUkz«
   M) cwî Kiw âUkz« mšy

5. fšÉ
   m) go¥âîk
   M) Mu«g fšÉ
   i) ca®Âiyï fšÉ
   <) nkš Âiyî fšÉ
c) gëla«
C) gël¥go¥ô
v) gëlnk%o go¥ô

6. khj FL«g tUkhz«
   m) %ghŒ 1000 - 5000 tiu
M) %ghŒ 5001 - 10000 tiu
i) %ghŒ 10,000; F nkš

7. eh£LÇik
m) ëââ®
M) maš eh£Lt®
i) ëåah£ Œá fhj ëââ®

8. nehia¥ g‰; bjÇãâU; F« fhy mšì
m) xU tU£ã‰F Ñœ
M) xU tU£ã‰F nkš

9. äwÉ īja njfshW nehŒ FL«gœâš cŸsjh?
m) M«
M) ëšiy

10. V£Çaš br¥lš o~gì£il g‰; Œj‰F K¢ bjÇikh?
M« / ëšiy, M« vwhš brhšŒi bfhLœjt®fŸ
m) njhH®fŸ k‰W« cwÉd®fŸ
M) kUçJt Jiwia nr®jÇ®fŸ
i) MáÇa®fŸ
<) Clf§fË‹ thÆyh£
c) k‰wit

11. táJF« Œl«
m) efu«
M) òwefu«
i) »uhk«

12. jhŒbkh£_________
(m) jÃOœ
(M) á§fs«
i) ieeÇa«
<) kiyahs«
(d) k‰wit

ghf« - M
V£Çaš br¥lš o~bgì£il g‰; lœiòaw‹ nfŸÉ
cl‰Tãaš
1. ãwÉ ëjaïnhshW nehŒ v<whš v<ld?
   m) ëjaâ cUt mik Yö FiwghL
   M) ëjaëDila ntiyÆDila FiwghL
   i) ëja« bgWçJ¥ nghjš
       <) ëjaëDila nehŒbjh‰W

2. ãwÉ ëja nfhshW nehŒ v¥bgJGJ V‰gL»wJ?
   m) FHâj ãwªj ãwF
   M) taJF tªj ãwF
   i) tajhd fh¥âš
       <) FHâj tÆ‰ïëŁ tsU« bghJG

clš TW rhâau«

3. ëjâââ ntï v<ld?
   m) brÇiF« ntï
   M) ùç³j RââFÇyô
   i) ë³ j ÙjF« ntï
       <) fh‰W RââFÇyô

m®çi«

4. V£Çaš br¥lš o~bg¡£ v<whš v<ld?
   m) _Éj thêsF«, Eiuupu thêsF« cÝs íizyô
   M) ëj k‰W« tyJ MÇiSçiF« cÝs íizyô
   i) ílJ k‰W« tyJ bt©çWyš ílJ MÇiSçiF« cÝs íizyô
       <) MÇiÈjF«, bt©çWyš ílJ MÇiSçiF« cÝs íizyô

fhuz§fŸ

5. V£Çaš br¥lš o~bg¡£íhd fhuz« v<ld?
   m) kugQ k‰W« fágâš V‰gL« ts€áj FiwghL
   M) ëjaëDila nehŒbjh‰W
   i) ëjaëâ V‰gL« fha«
       <) bg‰nwh®fÊDila ght«

m¿F¿fŸ

6. V£Çaš br¥lš o~bg¡£o« m¿F¿fŸ v<ld?
   m) clš Úykhs
   M) máf vil nghLjš
   i) Rthr« K£L k‰W« Rthr nehŒbjh‰W
7. ¿Qué valor de $W$ en el modelo $V$? 
   m) $\frac{1}{w}$ jalta sehE 
   M) $\sqrt{E}$r
t
   i) $vY$ $\frac{1}{K}$
   <) $u/cj$ nhif

8. ¿Qué valor de $W$ en el modelo $V$? 
   m) $\frac{1}{u/cj} g\text{Cnhhjid}$ 
   M) $v\text{jnh} g\text{Cnhhjid}$ 
   i) $vI$-nu
   <) m$huh ri$C$

9. ¿Qué valor de $W$ en el modelo $V$? 
   m) $\frac{1}{a} fahfnt rCah}$EL
   M) $E$\text{D}E$ bfh$E kU$pF_Y$ y$
   i) $mWit$ f$Eir$E$ y$
   <) v$J$ i$i$

10. ¿Qué valor de $W$ en el modelo $V$? 
    m) $\frac{1}{u/cj}$ jta sehE $jL_y$E$F$
    M) $g$O$E$ hj$E$ juit F$Z_y$E$L$Jtj$F$
    i) $jac$Dila Fiwo$E$F F$Z_y$E$L$Jtj$F$
    <) u$E$ j$R$afC$E$y$F$

11. ¿Qué valor de $W$ en el modelo $V$? 
    m) $u/cj$ j$E$ y$F$ $jL_jF$ $kU^n$
    M) t$E$ia Fiwo$F$ $kU^n$
    i) sehE $bjh$oiw Fiwo$F$ $kU^n$
    <) $E_{O}E$ bfh$E$ kU$n$

12. ¿Qué valor de $W$ en el modelo $V$? 
    m) t$H$fkhd czit$Y$ k$E$w $m$f nh$C$ nr$cj cz$
    M) c$Y$ $fE$L$E$L$ E$L$y$E$l cz$
    i) $aut$ $fE$L$E$L$ E$L$y$E$l cz$
    <) ou$E$ $R$E$L$E$L$ E$L$y$E$l cz$

13. $V$ $mWit$E$Eir$F$ $awF$ M$E$ $j$ Rthr$w$
14. ìja mWité á»éir;F¥wF Āìdi âU«ãail\:\n   v\;\;j gÄ‰oáia cldoahf brŒa nt©L«?
   m) \_eR k‰W« ìUK« gÄ‰oá
   M) fhš gÄ‰oá
   ð) îl« bga®jš gÄ‰oá
   <) Kfo RH‰oá gÄ‰oá

15. mWitá»éir;F¥ áwF áľoš åg‰w nt©oa KiwfÝ v‹d?
   m) njita\h{d} msi XŒi, õiʃc k‰W« kh‰aiu
   M) f£L¥gL¢jg£l czí tiffis vL¡f nt©L«
   ð) brašâwid f£L¥gL¢j nt©L«
   <) áut« c£bfhÝSjiy f£L¥gL¢j nt©L«

16. mWitá»éir;F¥ áwF FH³jÄDila ts®cáia
    ÙŠfÝ včgø ca®Já®fÝ?
    m) njita\h{d} msi rœjhd czit; bfhL¡f nt©L«
    M) brašâwid f£L¥gL¢j nt©L«
    ð) mâfkhd ghJfhÝg junt©L«
    <) áľoš KG XŒi njit

    ã‰ÉisifÝ

17. FH³jia Fz¥gL¢j‰hʃ kUŒjt kid¡F
    vL¢Jé bršyhÉlhʃ v‹d el¡F«?
    m) ù‰ifahfmt FzhkñsÉL«
    M) FH³j¡F moʃfo nehŒRthr‰ bj‰W V‰gL«
    ð) FH³j îw³J ÉL«
    <) vJimp el¡fhJ

18. V£Çš bršlʃ o–bg;ʃ cÝs FH³j¡F
    výchGJ FuÉš khWjš V‰gL«?
    m) mWit á»éir;F Êdhš
    M) mWit á»éir;F¥wF
    ð) kUŒjt kidÆÈUªJ brww áwF
    <) Fuš khWjš V‰gLHJ

19. V£Çš bršlʃ o–bg;ʃodhš V‰gL« Êisî v‹d?
    m) ts®cá FŒWjš
M) Fiwj msĩ áWÚ® btÉna‰w«
   i) Fiwj msĩ inkhFnshã«
   <) clš Úykjhš

20. VľCaš brãš o~bg;ľoDila mWit
   á»čirjFš āwF V‰gL« Ėisĩ v<d?
   m) ts@čáj FčWjš
   M) nehŒ bjh‰W
   i) clš vil Fiwjš
   <) ćja« braEHćjš

VľCaš brãš o~bg;ľil g‰œa kdYghčik

| nřYÉřY | xVõj bfhÝSjš | xVõj bfhÝs Éšiy | bjČahJ |
rÇahd nfŶEfŶ: 1,3,5,7,9. ne®kiwahd nfŶEfŶ 2,4,6,8,10.

APPENDIX –IV

VIDEO TEACHING MODULE-ENGLISH

VIDEO TEACHING ON ATRIAL SEPTAL DEFECT

ATRIAL SEPTAL DEFECT
INTRODUCTION TO CONGENITAL HEART DISEASE

leaving the heart, the connection and interrelationship among these various parts and even the location of the heart within the chest.

Normally the heart will circulate the blood to the pulmonary artery and to the aorta (oxygenated blood). Congenital heart defect can disrupt the normal flow of blood through the heart. The blood flow can slow down, go in wrong direction, to the wrong place or blocked completely.

ATRIAL SEPTAL DEFECT

Atrioseptal defect (ASD) is a defect in the septum between the heart's two upper chambers (atria).

CAUSES

Unknown

Genetic (defect in one or more genes)

The septum is a wall that separates the heart's left and right sides. Septal defects are sometimes called a "hole" in the heart.
CAUSES
Marriage in blood relation

CAUSES
Disease during early pregnancy, developmental defect of the heart

PATHOPHYSIOLOGY
Disrupted blood flow Normal blood flow

If the hole is small, it may have minimal effect

SIGNS AND SYMPTOMS
No symptoms. If the opening is small,
If the opening is large, it may cause mild shortness of breath, especially with exercise.
On physical examination, a murmur (noise heard with a stethoscope) and other abnormal heart sounds are present

easy fatigability, bulging of the chest, poor weight gain,
pneumonia and bronchitis, recurrent chest infection, dyspnea on exertion,
**SIGNS AND SYMPTOMS**

Cardiac enlargement

**DIAGNOSTIC EVALUATION**

**AUSCULTATION**

Of heart sound reveals murmur heard, second heart sound is widely split and fixed. May radiate to back and apex.

**ECG**

Demonstrate right ventricular hypertrophy and right axis deviation.

**ECHOCARDIOGRAM**

Two dimensional with Doppler study and color flow mapping which confirm the atrial septal defect.

**CHEST XRAY**

Shows right atrial and ventricular dilatation and increased pulmonary marking.

**Cardiac Catheterization**

Are useful approach for detection of problems and associated complications.
**MANAGEMENT**

Medical management for congestive cardiac failure and arrhythmias

Antibiotics prophylaxis is necessary during dental procedures if needed.

Surgical closure of the defect is planned in early childhood to prevent further complication.

If the opening is small, surgery or other treatments may not be needed. Most large atrial septal defects now closed either with open-heart surgery.

**MANAGEMENT**

Repair of defect is done by suture closure, pericardial patch or synthetic material such as Dacron repair by open heart surgery.

After surgery once consciousness is regained, coughing and deep breathing exercise to be practiced because it improves the lung expansion.

**DEVICE CLOSURE**

During a cardiac catheterization using a device inserted into the opening to plug the defect or hole.

**COMPLICATIONS**

In pre operative period

- Pulitations and fainting
- Infective endo carditis
- Pulmonary arterial hypertension
- Growth retardation
- Cardiac failure

In post operative period

- Hoarseness (Voice change)
- Paralyzed diaphragm
- Infections
- Bleeding
- Fluid build up around the lung
Ongoing Care

Patients with a history of ASD should be seen periodically by a cardiologist to look for uncommon problems. For a short time after surgery to close an ASD, a cardiologist must regularly examine.

Medical Follow-up

- Sometimes medicines to prevent blood clots and infection are used for a few months after ASD closure.
- Only rarely will patients need to take medicine after six months.
- Your cardiologist can monitor the child with noninvasive tests if needed, like electrocardiograms, echocardiograms.

In Surgery

Maintain the wound clean & dry, Skin care

Tab. Lasix for 3 months
Review in 2 & 6 month

In Device closure

- Groin restriction to prevent bleeding
- Tablet Asprin 3.5 mg/kg body weight for 6 months
- Review in 2,4,6th month after surgery
- Child can go to school after 7 days
- After doing ECHO

Activity Restrictions

Most patients with small, unrepaired atrial septal defects and repaired ASDs do not need any special precautions and may be able to participate in normal activities without increased risk.
Activity Restrictions
After recent surgery or catheter closure, your cardiologist may advise some limits on your physical activity for a short time, even when there is no pulmonary hypertension.

Activity Restrictions
After successful healing from surgery or catheter closure, no restrictions are usually needed.

COMFORT AND REST
Avoid energy expenditure activities, which increase the oxygen demand.
Avoid excessive cry.

COMFORT AND REST
Meet all the need of the child.
Older children learn their limitation, in the activities
Calm and quiet area for sleep.
Avoid over protection and over dependence.

NUTRITIONAL NEEDS
Infants (small amount of formula feeding)
Older infants: small amount of food to be given.

Older children: they can prefer themselves for meals

PSYCHO SOCIAL NEEDS
Encourage the activities for normal growth and development of the child with limitation.
Limited exercise tolerance restrict in young children.
Provide toys
CONTINUING CARE

Adequate rest at home by parents.
Treatment for respiratory infection.
Personal hygiene to be maintained.

Keep the wound clean by giving bath with soap and water.
Then dry with clean towel

If any wound discharge is present apply betadine solution and consult the doctor

CONTINUING CARE

Skin care to be maintained by emollient

Support and guidance by nurse.

Child behavior are after discharge like whining, clinging and emotional lability, nightmares.

Post pericardiotomy syndrome like lethargy, unexplained temperature elevation, difficult respiration, chest pain if present consult the physician.

Thank You!

mDg"j«-IV

xÉehli; fSÉ - jĂœ
பாதிக்கப்பட்டு உயிரியல் குழுங்களை  குறிப்பிட்டது வலியுறுப்பு குழுங்களை குறிப்பிட்டது

புறா இனைந்துகுறுக்கு அல்லது விளையாட்டில் மேலும் பண்டைய குழுங்களை ஒன்று கொள்ளவும். இந்த குழுங்களை ஒன்று கொள்ளவும் நடவடிக்கைகள் அருகில் காணப்பட்டுள்ளன. புறா இனைந்துகுறுக்கு அல்லது விளையாட்டில் மேலும் பண்டைய குழுங்களை ஒன்று கொள்ளவும்

சேர்த்துக்கொள்ளும் குழுங்களை ஒன்று கொள்ளவும் நடவடிக்கைகள் அருகில் காணப்பட்டுள்ளன. புறா இனைந்துகுறுக்கு அல்லது விளையாட்டில் மேலும் பண்டைய குழுங்களை ஒன்று கொள்ளவும்

சேர்த்துக்கொள்ளும் குழுங்களை ஒன்று கொள்ளவும் நடவடிக்கைகள் அருகில் காணப்பட்டுள்ளன. புறா இனைந்துகுறுக்கு அல்லது விளையாட்டில் மேலும் பண்டைய குழுங்களை ஒன்று கொள்ளவும்
துறைப்பு விளங்குநோக்கும்

மருத்துவத்தில் விளையாட்டு (முறை)

நூற்றாண்டு தொடக்கத்தில் பல்வேறு

மருத்துவச் சொல்லில் டின்சல் கணவு

தொடர்ந் காலம் செய்யப் பட்டியல்

காண்பென்று விளங்கும் பங்குகளால்

மேற்குப்பக்கத்தில் அரங்கு கூறும்

கருத்துறுத்துக்கள்

மருத்துவம் விளங்குநோக்கும்

போட்டு நிறைந்து கவுன்றுகள்

காண்பென்று விளங்கும் பங்குகளால்

மேற்குப்பக்கத்தில் அரங்கு கூறும்

கருத்துறுத்துக்கள்
அழிப்புக்கள்

குறுக்கல் குறுக்கல் குறுக்கல்

அழிப்புக்கள்

விளையாட்டு, விளையாட்டு, விளையாட்டு

அழிப்புக்கள்

நூறு குறுக்கல்

அழிப்புக்கள்

சாத்து சாத்து

அழிப்புக்கள்

சீர்கை தோழியாக்கல்

அழிப்புக்கள்

சிறுமியர் தோழியாக்கல்

அழிப்புக்கள்

சாத்து தோழியாக்கல்

அழிப்புக்கள்

சீர்கை தோழியாக்கல்
செல்வப் பல்கரையுடன் நடனப்படுத்தப்பட்ட வளங்குழுவின் பல்கரையில் தலைமுக வளங்குழுவின் தொகுதிகள் கொண்டுள்ளது.
பிற்புரிகு தெளிவு செய்யும் நோக்கங்கள்

* செயற்பாடு சிதற்சுற்று இடத்தில் மேலிடம் இடத்தில் வெளியீடு மேலிடம் இடத்தில் வெளியீடு.

* லிபா பதிலை 6 மாதங்கால பயன்பாட்டில் மேல்பிடம் வெளியீட்டு காண்பது.

கூட்டு ஃபன்னியா மதிப்பு வழக்கை ஆக்கத்தில்

* ரேகம் பாடல்போன / ரேகம் பாடல்போன வலுவாக்கு மதிப்பு பொருள்காரரும் சுவாசத்துடன் குறுக்குவடையும்.

* பேரியலுக்கு 3.5 புதிய / 2.5 அசை / 6 மாதங்கால் புகழ்பெறும்.
அல்லாஹ் மின்னணும்
அல்லாஹ் மின்னணும் பேச்சுக்கிளிய நூற்றாண்டுகளுக்கு முன்னிலான காலத்திகளில். 

நூற்றாண்டுகளுக்கு பராமரிக்கவுமிடம்.

நூற்றாண்டுகளுக்கு 3
நூற்றாண்டுக்கு பெருமை

2வது போட்டியில் நூற்றாண்டுக்கு புகழ்பெற்ற பொருள் பிரபாபநம் களவிட்டு

விளங்கிய போட்டிகள்

விளங்கிய போட்டிகள் / போட்டிகள்

அனைத்து போட்டிகளையும் மூன்றாண்டு வாக்கியில் குறிப்பிட்டு வந்துள்ளனர். போட்டிகளின் அறிக்கையும் கிருஷ்ண பொருள் இளஞ்செய்வதற்கு கனவு செய்யும் போட்டிகளின் அரசாசியர் தான் குறிப்பிட்டு விளக்கியது.

விளங்கிய போட்டிகள்

விளங்கிய போட்டிகள்

அனைத்து போட்டிகளையும் மூன்றாண்டு வாக்கியில் குறிப்பிட்டு வந்துள்ளனர். போட்டிகளின் அறிக்கையும் கிருஷ்ண பொருள் இளஞ்செய்வதற்கு கனவு செய்யும் போட்டிகளின் அரசாசியர் தான் குறிப்பிட்டு விளக்கியது.

விளங்கிய போட்டிகள்

விளங்கிய போட்டிகள்

அனைத்து போட்டிகளையும் மூன்றாண்டு வாக்கியில் குறிப்பிட்டு வந்துள்ளனர். போட்டிகளின் அறிக்கையும் கிருஷ்ண பொருள் இளஞ்செய்வதற்கு கனவு செய்யும் போட்டிகளின் அரசாசியர் தான் குறிப்பிட்டு விளக்கியது.

விளங்கிய போட்டிகள்

விளங்கிய போட்டிகள்

அனைத்து போட்டிகளையும் மூன்றாண்டு வாக்கியில் குறிப்பிட்டு வந்துள்ளனர். போட்டிகளின் அறிக்கையும் கிருஷ்ண பொருள் இளஞ்செய்வதற்கு கனவு செய்யும் போட்டிகளின் அரசாசியர் தான் குறிப்பிட்டு விளக்கியது.
சிவப்பு