

**EFFECTIVENESS OF HEALTH TEACHING INTERVENTION
ON CAREGIVERS' KNOWLEDGE ABOUT HOMECARE
MANAGEMENT OF CHILDREN UNDERGOING
VENTRICULOPERITONEAL SHUNT**

PROJECT REPORT

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Certificate

*Certified that this is the bonafide work of Sini.S.S at
The Sree Chitra Tirunal Institute for Medical sciences and
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TABLE OF CONTENTS

Chapter content	Page No.
1. Introduction	10 -12
2. Review of literature	13-17
3. Research methodology	18 - 21
4. Analysis and interpretation of data	22 - 29
5. Summary, implication, and recommendation	30 - 32
➤ Bibliography	33 - 34
➤ Appendices	35 - 39

CHAPTER I

Content

1. Introduction
2. Need and significance of the study
3. Statement of the problem
4. Operational definitions
5. Objectives of the study
6. Delimitations
7. Summary

CHAPTER II

Review of related literature

CHAPTER III

Title

1. Methodology
2. Research approach
3. Research design
4. Setting of the study
5. Population
6. Sample & sampling technique
7. Development of data collection tool
8. Description of tool
9. Testing of tool
10. Data collection
11. Plan of analysis
12. Summary

CHAPTER IV

Title

1. Analysis and interpretation of data
2. Distribution of samples according to age and sex
3. Distribution of sample according to pretest knowledge of caregiver before health teaching
4. Distribution of samples according to knowledge of caregivers after health teaching

CHAPTER V

Summary Conclusion and recommendation

Title

1. Introduction
2. Summary
3. Objectives of the study
4. Limitation of the study
5. Findings of the study
6. Recommendations for future study
7. Conclusion

BIBLIOGRAPHY

Books

Journals

LIST OF TABLE

Title

1. Distribution of sample according to age of the patient.
2. Distribution of sample according to sex of the patient.
3. Distribution of sample according to sex of the caregivers.
4. Distribution of sample according to age of the caregivers.
5. Distribution of sample according to initial shunt & shunt revision surgery.

LIST OF FIGURES

Title

1. Distribution of sample according to age of the patient.
2. Distribution of sample according to sex of the patient.
3. Distribution of sample according to sex of the caregivers.
4. Distribution of sample according to age of the caregivers.
5. Distribution of sample according to the pretest post test score.
6. Distribution of sample according to initial shunt & shunt revision surgery.

List of Appendices

- Questionnaire
- Health Education in English
- Education Malayalam

CHAPTER I

INTRODUCTION

BACKGROUND

Hydrocephalus is a progressive dilation of the ventricular system due to impaired absorption or over production of Cerebrospinal fluid (CSF). Inserting a ventricular catheter to drain CSF usually treats hydrocephalus. The proximal end of the shunt catheter is placed in the lateral ventricle. The shunt is tunneled under the skin and the distal end is placed in the peritoneal cavity. A one-way valve within the shunt controls the amount of CSF drained.

Congenital hydrocephalus occurs in approximately 1.4 of every 10,000 births. In children with hydrocephalus a ventriculoperitoneal shunt is surgically placed to drain cerebrospinal fluid from the occluded ventricle via a catheter to the peritoneal cavity. Hydrocephalus may occur idiopathically or result from a specific condition such as intra ventricular hemorrhage or neural tube defect. Approximately 80% of children with neural tube defect develop hydrocephalus and required shunting. Unfortunately shunt may malfunction. In 1991, 123 children were diagnosed with VP shunt dysfunction.

Many studies have been carried out which organize education as an effective methodology of improving children's health and reducing complication rate. Health education makes the mother conscious about the path of well being and also equips and encourages increasing her knowledge about the health and care of her child. This will help to form the attitude to practice hygiene, equips the mother's knowledge of scientific cause of disease and proper health behavior and illness behavior for preventive and curative measures.

Needs and importance of study

In this institution children who have undergone ventriculoperitoneal shunt are readmitted with shunt infection and malfunction. In last 6 months 14 cases reviewed, among 4 had admitted with VP shunt dysfunction (28.6%). So investigator felt the need to improve the patients' condition through proper health teaching about the home care management of children undergoing ventriculoperitoneal shunt to the caregivers. Health teaching to the mothers will help to reduce the complication rate.

VP shunt dysfunction may be caused by a variety of factors, including complication of the distal portion of the shunt tubing. Abdominal complication account for up to one fourth of the problems with shunt dysfunction. Mechanical blockage of the VP shunt tubing may be due to intestinal obstruction, abscess or cyst formation. Cysts may result from areas of localized fibrosis or infection. Another direction of migration can produce a scrotal hydrocele resulting in high-pressure fluid in the scrotal sac.

STATEMENT OF THE PROBLEM

A study to assess the effectiveness of health teaching intervention on caregiver's knowledge about home care management of children undergoing ventriculoperitoneal shunt.

DEFINITION OF TERMS

Knowledge: In this study knowledge means the verbal response of caregivers regarding home care management of children undergoing VP shunt

Children: In this study children means patient undergoing ventriculoperitoneal shunt surgery and are under the age of 12 yrs.

VP shunts: it is one of the treatments of hydrocephalus. In VP shunt surgery CSF is drained from ventricle of the brain into the peritoneal cavity. Home care management: Care of child undergoing surgery after discharge.

Objectives

1. To assess the knowledge level of care givers about home care management of children undergoing VP shunt.
2. To assess the effects of health teaching programme on care givers knowledge about home care management of children undergoing VP shunts

DELIMITIONS

The study is delimited to,

1. Limited sample size of 8 patients.
2. Sample includes the patient below the age of 12 yrs.

Summary

This chapter has included the background of the study, need for the study, statement of the problems, objectives of the study, definitions of terms and delimitation.

* * * * *

CHAPTER II

REVIEW OF RELATED LITERATURE

Review of literature is an important aspect of any research project from beginning to end. It gives character insight into the problem and helps in selecting methodology, developing tools, and also analyzing data. With these in view, an intensive review of literature has been done.

- **Kulkarni and others (2001)** conducted a prospective study to analyze the perioperative risk factors for cerebrospinal fluid, shunt infection in a cohort of children. The study was done between 1996-1999. Two hundred and ninety nine eligible patients underwent cerebrospinal shunt operation (insertion and revision) that were observed by a research nurse by at a tertiary care pediatric hospital. Several perioperative variables were recorded. Three-perioperative variable were significantly associated with a risk of shunt infection –the presence of postoperative CSF leak, patients, prematurity <40 weeks gestation at the time of shunt surgery and the number of times the shunt system was inadvertently exposed to breached surgical gloves. Based on these the authors suggested following recommendations.

1. Great care should be taken intra operatively to avoid a postoperative CSF leak.
2. Alternative to placement of a CSF shunt in premature infant should be studied.
3. Surgeon should minimize manual contact with the shunt system and consider the use of double gloves.

Elizabeth Ann Kirk (1992) done the convenience sample of 41 subjects was divided into two groups (A&B) Group A participants was parents whose child received an initial shunt. Group B participants were parents whose child was admitted for a shunt revision. The shunt education

intervention had done in both groups. The pre and posttest were the same seven multiple-choice questions on hydrocephalus and shunt. In both groups, the pretest was given before the shunt education intervention. Posttest was given 2-3 weeks after the patient's surgery. There was a statistically significant change in the score from the pre and posttest for group A. The nursing education appeared to have positive effects upon this group's knowledge of hydrocephalus and shunt.

Bragg et al (1994) conducted a retrospective chart review of children with VP shunt dysfunction to determine whether constipation might be a factor in the shunt dysfunction. Of 51 cases reviewed, 19 had documented constipation, such as no bowel movement for 2 or more days, small hardball like stool or fullness of the colon noted on physical examination or abdominal radiographs. In 6 cases bowel cleaning was performed and signs and symptoms of shunt dysfunction resolved without shunt revision. This review suggested that constipation might affect the fluid or pressure dynamics of the VP shunt and contributes to shunt dysfunctions. Of the 13-ventriculo atrial shunts, 10 (79%) required revision, 8 (61%) of these were due to problems of the atrial end. These problems included relative shortening of the tubing due to patient growth, superior vena cava thrombosis, and disconnection. VP shunt were used most frequently and had a lower complication rate (47%) ventriculo atrial shunt were used less often and had a higher complication rate (79%) with more serious problems.

Aqha FP et al (1983) conducted 400 VP shunt procedures in 280 patients. They were retrospectively evaluated regarding complication due to the peritoneal end of the catheter. There were 100 complications requiring 120 surgical revisions. Common complication consisted of mechanical shunt malfunction in 28, catheter tip occlusion in 40 and shunt infection in 25. In addition, there were abdominal cerebrospinal fluid loculation and pseudocyst formation in 7 patients,

intestinal perforation, and migration of shunt tip in the right pleural cavity and intractable ascitis in one patient each. The currently available diagnostic imaging modalities by which the peritoneal end of a malfunctioning ventriculoperitoneal shunt can be evaluated are reviewed.

Kanew, Paul M and Shechan Jonas M (2003) conducted a study on patient underwent shunt surgery. In 62 months the authors performed 526-shunt placement or revision in-patients up to 18 yrs of age. There were 7 shunt infections (1.33%) In 5 cases the organism was Staphylococcus epidermidis and a single shunt each was infected with Hemophilus influenza and Staphylococcus aureus. Each infection was treated with External Ventricular Drainage (EVD) and Intravenous (IV) antibiotics. The new shunt was placed at a new incision site after at least 5 days of sterile spinal fluid culture. The mean follow up among these patients after shunt insertion was 25 months. The infection rate during 62 months was limited to 1.33%. Uniform surgical technique, limited hand ware and skin edge manipulation and double gloves may be important factors in limiting shunt infections.

Murtaqh FR et al (1980) conducted a follow up study on patients underwent shunt surgery. There were 112 separate hospital evaluation in 84 patients for suspected shunt malfunction. 96 evaluations were of VP shunt, 13 were of ventriculo atrial shunts and three were of both types of shunts. In 45 (47%) of 96 VP shunts complications eventually led to surgical revision, 20(44%) of these were problems of the peritoneal end and therefore peculiar to this type of shunt.

Shunt infections occur in 6-25% of hydrocephalic patients with shunt. (Yoque R (1980). Although staphylococcus epidermidis and Staphylococcus aureus cause the majority of such infections, enteric bacteria account for at least 10-15%. Most investigators agree that the enteric infected shunt should be removed before antibiotic therapy is initiated. The choice of an antibiotic

should be guided by in vitro susceptibility of the etiologic agent, and the ability of the drug to pass the blood brain barrier. The efficacy of prophylactic antibiotic in reducing shunt infection is controversial.

Laura Grief (1991) reviewed of 27 children who underwent routine shunt lengthening. None developed the most common complication of infection following this operation. After questioning parents about their need for information on shunt lengthening a fact sheet explaining the procedure was written. As a result of the finding and need to be more cost efficient while safely caring for patients, the authors had nursing management of these children.

Sarguna (2006) conducted a retrospective analysis of 226 CSF shunt procedures. Bacteriological work up of CSF over a period of one year and six months was undertaken. Laboratory diagnosis was established by subjecting the CSF to cell count, biochemical tests bacteriological culture and antibiotic susceptibility test. Nine out of 226 (3.98%) of the CSF sample were culture positive. Coagulase negative staphylococcus was the most common isolates accounting for 36.36% majority of the isolates were sensitive to the third generation cephalosporins and quinolones. The antibiotic sensitivity pattern suggest cephalosporins and quinolones to be a better choice of antibiotics either prophylactically or therapeutically, which may result in effective and rapid sterilization of the CSF.

L.Gomez Lopez et al (1998) studies 37 children with malfunctioning shunt. The mean age of the patient was 5.5 yrs. The average stay in the ICU was 8.2 days. Mechanical dysfunction was detected in 25 patient (68%) and infections etiology in 12. CSF biochemical alteration was found in 8 of the infected group. Staphylococcus was isolated in six of the eight cases. The VP shunt was changed during first 24 hrs in 17 of 25 patients (68%) with mechanical malfunction. While 11 cases

with an infected cases (92%) were managed with an external shunt. The interval between the insertion of the VP shunt and malfunction was over 6 months in 20 cases (54%). Appropriate surgical technique, asepsis as well as prophylactic are antibiotics essential to decrease the incidence of complications

Summary

This chapter has included many of related literature reviewed that VP shunt dysfunction may be caused by variety of factors, including complications of the distal portion of the shunt tubing. Abdominal complications account for up to one fourth of the problems with shunt dysfunction. Mechanical blockage of the VP shunt tubing may be due to intestinal obstruction, abscess or cyst formation and need for shunt lengthening

Many of this literature found no comparable intervention studies that involved caregivers of patient undergoing VP shunt

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CHAPTER III

METHODOLOGY

INTRODUCTION

The methodology can properly refer to the theoretical analysis of the methods appropriate to a field of study or to the body of methods and principles particular to a branch of knowledge.

RESEARCH APPROACH

To accomplish the objectives of the study the investigator used experimental approach. The approach is made quantitative by using self-prepared multiple - choice questionnaire of 8 questions were included. The aim of study was to assess the effectiveness of health teaching intervention on caregiver's knowledge about home care management of children undergoing VP shunt.

RESEARCH DESIGN

Research design is the conceptual structure with in which the research is conducted. It facilitates the smooth sailing of various research operations and there by making research as efficient as possible yielding maximum information with minimal expenditure of effort, time and money. The research design selected for the present study was experimental approach, one group pre test - post test design.

SETTING

The study was conducted in the neuro surgical intensive care unit and neuro surgical ward, where neuro surgical patients are admitted at SCTIMST, TVM. Neuro surgical intensive care unit is

located at 4th floor of surgical block and Neuro surgical ward is located at 3rd floor of surgical block. The Neuro Surgical Intensive care unit is 12-bed capacity, it divided into two sections. ICU II & I. After surgery patient received from Operation Theater to ICU I and 1st postoperative day that patient shifted to ICU II. After that patient shifted to Neuro surgical ward (NSW). It is 38-bed capacity. Common cases admitted in this ward are operated cases of meningioma, glioma, hydrocephalus, subarachnoid hemorrhage and aneurysm clipping.

POPULATION

The population taken for the study was the caregivers of patient undergoing initial shunt placement and readmission with shunt infection and shunt malfunction at SCTIMST.

SAMPLE AND SAMPLING TECHNIQUE

Sample is a subset, of the caregivers of the population. In the present study total 12 Patient who had admission with shunt surgery during the study period from September 2006 to October 2006. Sampling technique refers to the process of selecting a portion of population to represent entire population.

Purposive sampling technique is used for the present study.

Inclusion criteria:

- Caregivers of a patient admitted to the neurosurgery - unit for shunt revision or initial shunt insertion.
- Both male and female care givers
- Caregivers signed consent form
- Care givers who had able to read and write in Malayalam
- Patients age group below 12 yrs.

Exclusion criteria: -

- Parents did not understand Malayalam
- Patients age group above 12yrs

DEVELOPMENT OF DATA COLLECTION TOOL

Data collection tool refers to the instrument, which was constructed to obtain relevant data.

In this study the investigator used the structured self-prepared questionnaire for assessing the knowledge of caregivers about the home care management of patient undergoing VP shunt.

DESCRIPTION OF TOOL

The tool used in the present study consisted of two sections.

1. Part I: - for obtaining personal data and general information.
2. Part II: - for assessing knowledge of caregivers about home care management of patient undergoing VP shunt.

Part I of the tool contained items for obtaining information about back ground variable like age sex education qualification and marital status.

Part II of the tool included eight multiple-choice questions about diet, preventing infection, sign and symptoms of shunt infection and shunt malfunction, importance of review and complication of VP shunt. Content validity was listed with the help of subject experts.

Part III of tool written palm let about the home care management of child undergoing VP shunt. It included the home care management, how to prevent infection, diet, importance of review, sign and symptoms of shunt malfunction, importance of continuing drug.

DATA COLLECTION

For data collection formal permission was obtained from the authorities. Period of data collection was from September 2006 to October 2006. Place was Neuro surgical intensive care unit and Neuro surgical ward. The investigator first saw the patient and caregivers on one day prior to the proposed surgery. The investigators first introduced herself and explain the need and purpose of the study to the caregivers. After signed the consent form the caregivers'. Knowledge assessed with the knowledge test on home care. After that the individual one to one health teaching was given to the caregiver. The same items comprised the posttest, which was administered to the same caregivers 3 days after surgery. The time taken for the completion for the entire procedure was 15-20 minutes.

PLAN OF ANALYZIS

The data obtained from the self-prepared multiple-choice questionnaire, the investigator decided to analyze the data in terms of pretest and post test score and to present in the form of table and bar graph.

Summary

This chapter presented the research approach, research design, study settings, sample and sampling technique, population, development of data collection tool, data collection procedure and plan of data analyses.

* * * * *

CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

INTRODUCTION

Analysis is a process of organizing and synthesizing data in such a way that projects questions can be answered. The over all aim of analysis is to organize, provide structure and to elicit meaning from collected data.

Interpretation refers to the process of making sense of the result and of examining the implication of findings with in a broader content.

This chapter presents the analysis and interpretation of data collected from 8 patients at SCTIMST. The finding of the study were arranged and analyzed under the following sections.

Section A: Distribution of subjects according to the demographic variables of patients and caregivers.

Section B: Distribution of subject according to the pre test post test score.

Section C: Distribution of subject according the shunt surgery.

Section A

Distribution of sample according to the demographic variable of patient.

Table I

Distribution of sample according to the age of the patient.

Age	Frequency	Percentage
< 1yr	2	25%
1 - 2 yr	2	25%
3 - 5	2	25%
6 - 12	2	25%
Total	8	100%

Total data presented in table I shows that 25% of subject belongs to the age group of <1 yrs, 25% of subjects belongs to the age group of 1-2 yrs, 25% of subjects belongs to the age group of 3-5 yrs, 8.3% of subjects belongs to the age group of 6-12 yrs.

Figure - I

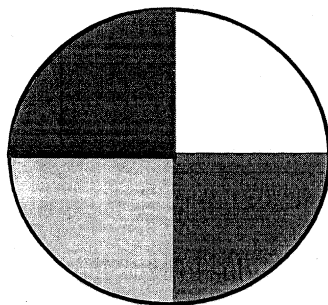


Table II

Distribution of sample according to sex of patient

Age	Frequency	Percentage
male	3	37.5%
female	5	62.5%
Total	8	100%

Data presented in table II shows that majority of (62.5%) subjects belonged to female group.

Figure - II

Bar diagram showing distribution of sample according to the sex of the patient

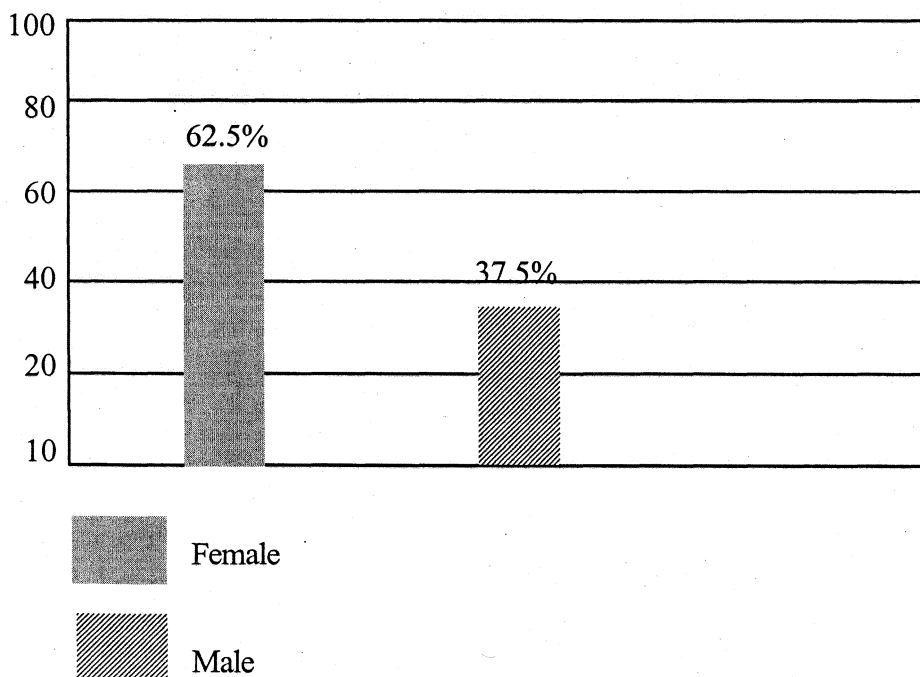


Table III

Distribution of sample according to sex of the caregivers

Sex	Frequency	Percentage
male	1	12.5%
female	7	87.5%
Total	8	100%

Data presented in table III shows that majority of caregivers were females (87.5%)

Figure - III

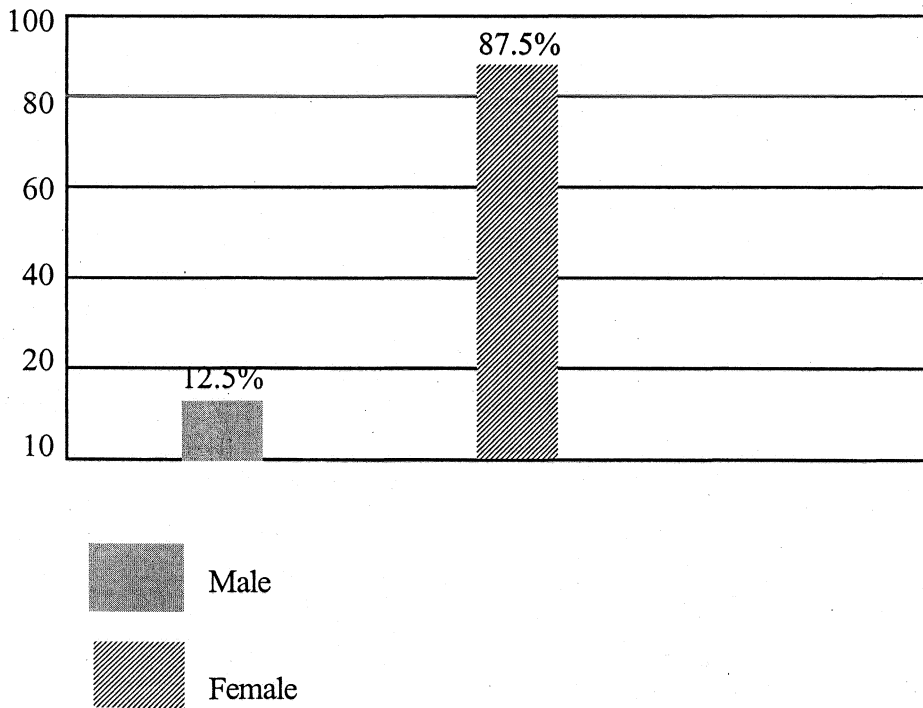


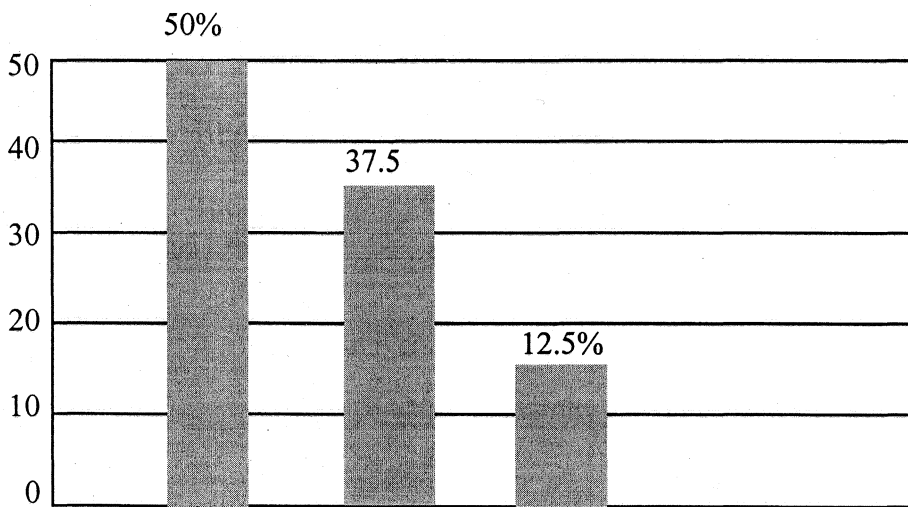
Table IV

Distribution of sample according to the age of the caregivers.

Age	Frequency	Percentage
20-29	4	50%
30-39	3	37.5%
40-49	1	12.5%
Total	8	100%

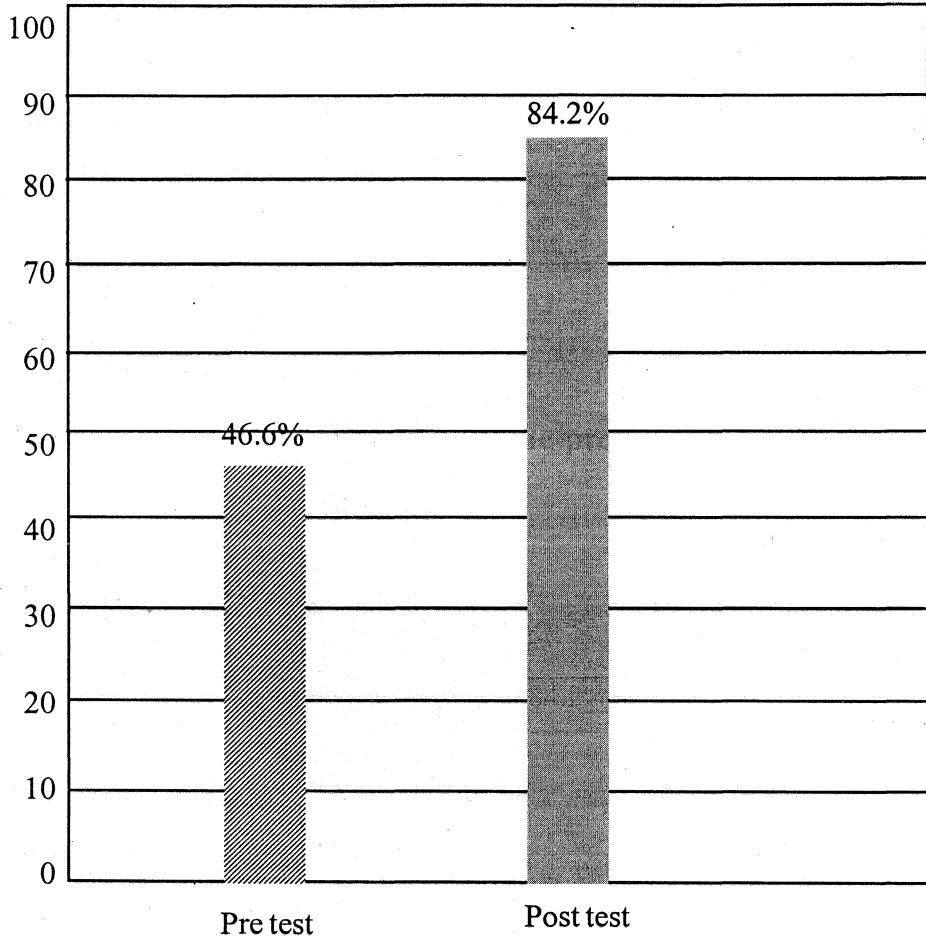
This table shows that majority of the caregivers were between 20-30 yrs.

Figure IV



Section B
Table V

Distribution of Sample according to the pre test post test score



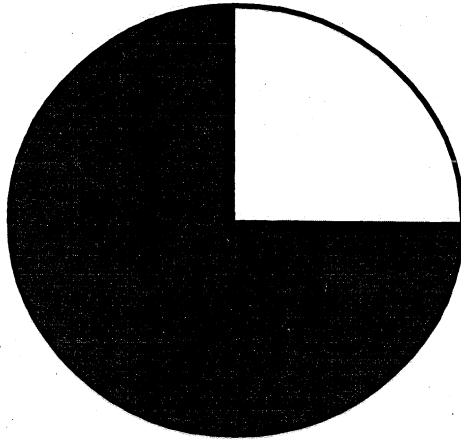
This bar graph represent 46.6 % of pretest score and 84.2 % of post test score.

Section C

Table VI

Distribution of sample according to shunt initial & Shunt revision surgery.

	Frequency	Percentage
Initial Shunt	6	75%
Shunt revision	2	25%



This diagram shows 75% shunt initial surgery & 25% Shunt revision surgery.

Summary

The Chapter dealt with the objective in which the data were analysed, distribution of sample according to demographic variables such as age, sex, distribution of sample according to pre test score & Post test score. Frequency bar diagram & pie diagram was used to depict the score of the sample.

CHAPTER V

SUMMARY, CONCLUSION, LIMITATION AND RECOMMENDATION

INTRODUCTION

A brief account of the study is given in this chapter which cover objectives, findings of the study and possible application of the result. recommendations for feature research and suggestions for improving the present study are also presented.

This study was conducted with the objectives to assess the knowledge level of caregivers about home care management of children undergoing VP shunt surgery and to assess the effectiveness of health teaching intervention on care givers knowledge about the home care management of children undergoing VP shunt. The structured multiple choice questions were used for collecting data from 8 caregivers.

A review of related literature helps the investigator to get a clean concept about the project topic indertaken, as well as to develop tools, methodology of the study and decide the plan for analysis.

The research approach adopted for the study was experimental approach. The study,was conducted at Neuro Surgical Intensive care unit and Neuro surgical ward at SCTIMST. Sampling technique was used to obtain samples.

Tool used for data collection was structured self prepared eight multiple choice questions, pretest-post test score consisting of demographic data. This eight multiple choice questions include the home care management of children undergoing VP shunt.

The pilot study was conducted among 4 samples. The data collection was done on and it was analysed and interpreted.

Objectives of the study

- 1 To assess the knowledge level of caregivers about home care management of children undergoing VP shunt.
- 2 To assess the effectiveness of health teaching programme on care givers knowledge about home care management of children undergoing VP shunts.

Limitation of the study

- The sample size limited to 8 patients
- Purposive sampling technique is used.
- Sample include assess the knowledge level of caregivers about homecare management of children undergoing VP shunt
- Sample include the patient below the age of 12 years.

Findings of the study

- The post test score is heigher that the pretest score.
- The caregivers were more knowledgable about homecare management of patient undergoing VP shunt surgery in shunt revision than initial shunt surgery.
- 87.5% of care givers were females.

Conclusion

Based on the findings of the study the following conclusions were drawn.

- ❖ After health teaching intervention the caregivers' knowledge improved.
- ❖ Caregivers were more knowledgable of patient undergoing shunt revision than initial shunt surgery.

Recommendation for future study

Keeping in mind the finding and limitation of the study, the following recommendations were made for future research.

Similar study would be repeated by increasing the sample size.

The investigator felt demographic data on the caregivers age, education level and socioeconomic status including transportation may have been valuable, particularly for future studies.

A future research projects may be to investigate intervention on the use of the emergency service when a care giver suspects shunt malfunction.

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APPENDICES

സമ്മത പത്രം

എന്റെ കുഞ്ഞിന്റെ (രോഗി) അസുഖവുമായി ബന്ധപ്പെടുത്തിയും എതിന്റെ ചികിത്സയുടെ ഭാഗമായി ചെയ്യുന്ന ഓപ്പറേഷൻ ശേഷം ശ്രദ്ധിക്കേണ്ട കാര്യങ്ങളെ കുറിച്ചും ഉള്ള എന്റെ അറിവ് പരിശോധിക്കുന്നതിനും പുതിയ കാര്യങ്ങൾ മനസ്സിലാക്കുന്നതിനും ഞാൻ പൂർണ്ണമായും സമ്മതിക്കുന്നു. ഇത് ഒരു പഠനത്തിന്റെ ഭാഗമാണെന്നും ഈ പഠനത്തിന് വേണ്ടി ഞാൻ സഹകരിച്ചുകൊള്ളാമെന്നും സമ്മതിച്ചിരിക്കുന്നു.

Patient Name :

Age :

Sex :

Care givers relationship to the patient :

Age :

Sex :

Qualification

Questionnaire

1. ശസ്ത്രക്രിയ കഴിഞ്ഞ ശേഷം മരുന്ന് കഴിക്കേണ്ട ആവശ്യം ഉണ്ട്

Yes / No

2. ഷണ്ട് ശസ്ത്രക്രിയ കഴിഞ്ഞ് രോഗി വീട്ടിൽ പോയശേഷം സാധാരണ എല്ലാ ആഹാരവും കൊടുക്കാവുന്നതാണ്.

Yes / No

3. കുഞ്ഞിനെ മറ്റ് അസുഖമുള്ളവരുമായുള്ള സമ്പർക്കം ഒഴിവാക്കുന്നത് നല്ലതാണ്.

Yes / No

4. ശസ്ത്രക്രിയ കഴിഞ്ഞശേഷവും സന്നി വരാനുള്ള സാധ്യതയുണ്ട്

Yes / No

5. ശസ്ത്രക്രിയക്കുശേഷം അണുബാധയുണ്ടായാൽ എന്തൊക്കെ രോഗലക്ഷണമാണ് കാണുന്നത്.

a) പനി

b) ചർദ്ദി

c) മുറിവിന്റെ ഭാഗത്ത് ചൊറിഞ്ഞ് തടിക്കുക.

6. ശസ്ത്രക്രിയ ചെയ്ത സ്ഥലത്ത് അണുബാധ ഉണ്ടാകാതെ നോക്കേണ്ടത് അത്യാവശ്യമാണ്.

Yes / No

7. ഷണ്ട് ശസ്ത്രക്രിയക്ക് എന്തെല്ലാം ദോഷഫലങ്ങളാണുള്ളത്.

a) അണുബാധ

b) മലബന്ധം

c) സന്നി

8. ഷണ്ട് റൂബിന്റെ പ്രവർത്തനം ശരിക്ക് നടക്കാതിരുന്നാൽ എന്തെല്ലാം രോഗലക്ഷണമാണ് കാണുന്നത്.

a) ചർദ്ദി

b) അമിതമായ ഉറക്കം

c) മലബന്ധം

അമ്മമാർ ശ്രദ്ധിക്കേണ്ട കാര്യങ്ങൾ

1. കുഞ്ഞിന്റെ ഓപ്പറേഷൻ ചെയ്തസ്ഥലത്ത് അണുബാധ ഉണ്ടാകാതെ നോക്കണം.
 2. കുഞ്ഞിനെ എപ്പോഴും വൃത്തിയായി വയ്ക്കണം.
 3. പനി, തുമ്മൽ, ജലദോഷം എന്നീ രോഗലക്ഷണങ്ങൾ ഉള്ളവരുമായുള്ള കുഞ്ഞിന്റെ സമ്പർക്കം ഒഴിവാക്കേണ്ടതാണ്.
 4. ശസ്ത്രക്രിയ കഴിഞ്ഞ് തുണൽ മാറ്റിയ ശേഷം കുഞ്ഞിനെ തലയുൾപ്പെടെ ദിവസവും കുളിപ്പിക്കുക. സോപ്പും ചൂടുവെള്ളവും ഉപയോഗിച്ചു മുറിവ് (തുണലിട്ട ഭാഗം) നന്നായി കഴുകിയ ശേഷം വൃത്തിയുള്ള തുണിയുപയോഗിച്ച് തുടക്കുക, എണ്ണയോ പൗഡറോ മുറിവിൽ ഇടരുത്.
 5. ഡോക്ടറുടെ നിർദ്ദേശ പ്രകാരം മരുന്ന് തുടർച്ചയായി കൃത്യസമയത്ത് കൃത്യമായ അളവിൽ കൊടുക്കേണ്ടതാണ്.
 6. ശസ്ത്രക്രിയ കഴിഞ്ഞ് വീട്ടിൽ പോയശേഷം കുഞ്ഞിന് എല്ലാ ആഹാര സാധനങ്ങളും കൊടുക്കാവുന്നതാണ്.
- ഓപ്പറേഷൻ ചെയ്ത മുറിവിൽ നിന്നും വെള്ളം വരികയോ അവിടെ തടിച്ച് ചുമക്കുകയോ ചെയ്താൽ ഉടൻതന്നെ ഡോക്ടറെ കാണിക്കണം.
8. കുഞ്ഞിന് ഛർദ്ദി, അമിതമായ ഉറക്കം, ഉച്ചത്തിലുള്ള കരച്ചിൽ, സ്വഭാവ വ്യതിയാനം, കുഞ്ഞിന് കാഴ്ചയിൽ എന്തെങ്കിലും തകരാറ് ഇവയിൽ ഏതെങ്കിലും പ്രകടമാവുകയാണെങ്കിൽ ഡോക്ടറെ കാണിക്കേണ്ടതാണ്.
 9. തലവേദന, പനി, സന്നി എന്നീ ലക്ഷണങ്ങൾ കാണിച്ചാൽ ഡോക്ടറെ വിവരമറിയിക്കേണ്ടതാണ്.
 10. ചെവിയുടെ പിൻഭാഗത്ത് മൃദുവായി തടവുന്നത് റ്റുബിൾ കുടിയുള്ള നീരിന്റെ ഒഴുക്ക് തടസപ്പെടാതിരിക്കാൻ സഹായിക്കും.

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HEALTH EDUCATION ABOUT HOME CARE MANAGEMENT OF PATIENT UNDERGOING VENTRICULO PERITONEAL SHUNT SURGERY

1. Extreme care to be taken for preventing infection.
2. Always kept the child should be clean and tidy.
3. Restrict thje visitors at home. Do not mingle with persons having fever, nasal discharge or other major disease. Do not go in a crowd.
4. After removing the stithes, have daily bath. clean the wound with soap and water and mop with clean cloth. Do not rub or scratch the wound with the mail. USC seperate cloth fo cleaning the wound change your cloth daily. Do not apply oil or powder over the wound. Keep the wound dry.
5. Strictly adhere to the instructions given about medication.
6. Any redress, pain, swelling along the shunt tract should be brought to the notice of the Surgeon.
7. If child have any head ache, vomiting or infacts drowsiness it should be reported immediately to the surgeons.
8. If child have head ache, fever, siezures, it should be reported to the surgeon.
9. Take normal diet if not specificially contraindicated.
10. Press the shunt valve sits smoothly and massages down to prevent shunt block. For small babies this can be doe which giving breast feeding.

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