

Management of selected adverse effect of chemotherapy nursing essay

[Health & Medicine](#), [Nursing](#)



**ASSIGN
BUSTER**

Methodology of research organizes all the components of study in a way that most likely will lead to valid answers for the problems that have been posted (Burns and Groove, 2008). This chapter deals with the methodology adopted for the study. It includes the research design, variables, setting, population, sample, criteria for selection of the sample, sample size, sampling technique, development and description of the tool, content validity, pilot study, reliability of the tool, data collection procedure and plan for data analysis

RESEARCH APPROACH

A quantitative research approach was used to carry out the study

RESEARCH DESIGN

The research design used for this study was quasi experimental, equivalent control group post test only design. According to Polit and Hungler (2012) the schematic representation of quasi experimental study is shown below:

NeedAssessment

Group

Nursing intervention

X

Post test

02

Experimental groupControl groupSelf instructional discharge protocol for cancer clientsHospital routineInformal teachingAssessment of post test level of knowledge and practice on self instructional discharge protocol for cancer clients among nurses by using structured questionnaire and observational

checklist
Assessment of post test level of knowledge and practice on self instructional discharge protocol for cancer patients by using structured questionnaire and observational checklist

VARIABLES

Independent Variable

Self instructional Discharge protocol for cancer patients by the nurses.

Dependent Variable

Knowledge and practice of nurses

Extraneous Variables

Age in years, educational status, gender, years of caring with cancer patients and the position held in the ward.

SETTING

The research setting was Cancer Institute, Adyar which had bed strength of 423. The Hospital has the Medical, Surgical, Oncology wards, day care facilities and radiation therapy unit. The number of patients admitted in cancer institute per day is about 20 to 30. Every month about 300 to 400 discharges are done in this hospital.

POPULATION

Target Population

The study population consisted of all registered nurses (qualified with diploma in general nursing and midwifery, BSc Nursing degree or Post Basic

BSc Nursing) who takes care of cancer patients and participate in discharge procedure.

Accessible Population

All nurses who are available during data collection period and who take care of cancer patients and participate in discharge at cancer institute Adayar.

SAMPLE

The registered nurses who satisfied the inclusive criteria were the samples of the study i. e., 60 nurses (30 each in control and experimental)

SAMPLE SIZE

It consisted of 60 nurses (control group consists of 30 and experimental group consists of 30 nurses) who were working in Medical and Surgical Oncology department of Cancer Institute, Adayar.

CRITERIA FOR SAMPLE SELECTION

Inclusive Criteria

Nurses assigned to discharge of cancer patients during morning shift. Nurses with education qualification of diploma in nursing, BSc Nursing, PB. BSc(N).

Nurses who are willing to participate in the study. Nurses who had experience of more than 6 months in the specified areas

Exclusive Criteria

Nurses who have undergone special education and training on discharge instructions.

SAMPLING TECHNIQUE

The sampling technique used in the study was non probability convenient sampling technique. The investigator conducted a need assessment for the nurses in the medical and surgical oncology units of the old block and when 30 nurses were conveniently selected they were taken as the experimental group. As the same way the nurses in the medical and surgical unit of new block were given need assessment and when 30 nurses were selected based on convenient sampling technique the group was selected as control group. Homogeneity between group was maintained on the basis of level of need, gender and position held in the ward.

DEVELOPMENT AND DESCRIPTION OF TOOL

After an extensive review of literature, discussion with the experts and with the investigator's personal and professional experience, a structured questionnaire was developed to assess the knowledge and an observational checklist to assess the post practice of nurses utilizing the self instructional discharge protocol for cancer patients. The tool has following part

PART A: DATA COLLECTION

Section A: Personal data sheet.

Section B: Need assessment scale.

Section C: Structured knowledge questionnaire.

Section D: Observational checklist.

Section E: Personal data sheet.

PART B: INTERVENTION TOOL

Section A: personal data

Personal data sheet was used to collect the demographic characteristics consisted of 5 variables to assess the background of the nurses. This included the age in years, educational status, gender, years of experience in caring cancer patients and position held in the ward.

Section B: Need assessment scale.

This section consists of Need Assessment Scale which included positive worded questions to identify the need for discharge protocol. In this section, 5 questions were formulated.

S. No.

Items

No. of. Questions

1 – 5 Positive Worded Question
Scoring Key: The item were rated as ' 1' for ' Yes' and ' 0' for ' No'
Total item score: 5, Maximum Score was ' 5' and

Minimum Score was ' 0'. The raw score was converted to percentage to interpret the level of need. The level of need was interpreted as

Score

Level of Knowledge

<50%Low Level of Need51 - 75%Moderate Level of Need> 75%High Level of Need

Section C: structured questionnaire.

In the structured questionnaire 30 questions were formulated under separate sub headings to assess the knowledge of the nurses on self instructional discharge protocol for cancer clients as follows: SInoltemsNo of questions12345678Personal hygienePain managementSafe use of medicationDietary managementRest and activityManagement of selected adverse effect of chemotherapy and radiation therapyFollow upFamily responsibility44344443

Scoring Key:

Each item was a close ended multiple choice questions with a single correct answer. Scoring for the correct answer was " 1" and the wrong answer was " 0". Total score of the items was " 30". Maximum score was 30 and minimum score was 0. The raw score was converted to percentage to interpret the level of knowledge. The level of practice was interpreted as

Score Level of Knowledge

< 50% Need improvement51-75% Moderately adequate knowledge> 75%

Adequate knowledge

Section D: Observational checklist.

Post intervention level of practice among nurses was assessed using observational checklist on self instructional discharge protocol for cancer patients. OBSERVATIONAL CHECKLISTSI noltemsNo itemsyesNo12345678

PERSONAL HYGIENE

Brushing teethBathing caring of hair

PAIN MANAGEMENT

Withdrawal symptomsAbout self administered medication

SAFE USE OF MEDICATION

Storing of chemotherapy drugsDisposal of chemotherapy waste

DIETARY MANAGEMENT

Recommended daily allowances24 hours recallFood to be avoidedFood to be recommended

REST AND ACTIVITY

physical activityWeight lifting

MANAGEMENT OF SELECTED ADVERSE EFFECT OF CHEMOTHERAPY AND RADIATION THERAPY.

Loss of appetite, nausea and vomiting, constipation, anaemia infection

FOLLOW UP

When follow up is neededSymptoms the client has to visit

FAMILY RESPONSIBILITY

Records about the severity of pain. Observational checklist have dichotomous type question i. e. yes or no Scoring Key: The items were rated as ' 1' for yes (Providing education) and ' 0' for No (Not providing education). The raw score was converted to percentage to interpret the level of practice. The level of practice was interpreted as

Score Level of Practice

< 50% Need improvement 51-75% Moderately adequate practice > 75%

Adequate practice

PART B: INTERVENTIONAL TOOL

Section E: Self instructional discharge protocol

Self instructional discharge protocol for cancer patients comprises of discharge education includes Personal hygiene instructions. Pain management. Safe use of medication. Dietary management Rest and activity Management of selected adverse effect of radiation therapy and chemotherapy Follow up. Family responsibility.

CONTENT VALIDITY

The content validity of the data collection tool and intervention protocol was ascertained from the expert's opinion in the following field of expertise.

Medical Oncologist – 2 Nursing Expert – 3 Nursing Practice Expert –

1 Modifications suggested by the experts were incorporated in the tool. All the experts had their consensus and then the tool was finalized

ETHICAL CONSIDERATION

Ethics is a system of moral values that is concerned with the degree to which the research procedures adhere to the professional, legal and social obligations to the study participants. Polit and Hungler (2011)24

1. Beneficence

The investigator followed the fundamental ethical principle of beneficence (doing good) by adhering to

The right to freedom from harm and discomfort

The study will be beneficial for the participants as it enhances their knowledge about self instructional discharge protocol and improves their practice while taking care of clients with cancer.

The right to protection from exploitation

The investigator explained the procedure and nature of the study to the participants and ensured that none of the participants in both control and experimental group would be exploited or denied fair treatment.

2. Respect for human dignity

The investigator followed the second ethical principle of respect for human dignity. It includes the right to self determination and the right to self disclosure.

The Right to Self-determination.

The investigator gave full freedom to the participants to decide voluntarily whether to participate in the study or to withdraw from the study and the right to ask questions.

b) The Right to Full Disclosure.

The researcher has fully described the nature of the study, the person's right to refuse participation and the researcher's responsibilities based on which both oral and written informed consent was obtained from the participants.

3. Justice

The researcher adhered to the third ethical principle of justice, it includes participant's right to fair treatment and right to privacy.

a) Right to Fair Treatment

The researcher selected the study participants based on the research requirements. The investigator followed hospital routine for control group.

Right to Privacy.

The researcher maintained the participant's privacy throughout the study.

PILOT STUDY PROCEDURE

Pilot study is the trial run for the main study. Pilot study was conducted at V. S Hospital, Chetpet, after obtaining formal written permission from the Principal of Omayal Achi College of Nursing, Director of V. S Hospital, and the Nursing Superintendent for conducting the pilot study. The reliability for application of tool was tested by using Test-Retest method. The study was

conducted for a period of one week from 7th June to 13th June 2012. The investigator introduced self to the nurses in the medical and surgical oncology units. After a brief explanation about the purpose of the study, a written consent from the nurses for data collection was obtained followed by that need assessment was done for the nurses. After need assessment the investigator selected 6 nurses (3 each in control and experimental) using non probability convenient sampling technique, who fulfilled the sample selection criteria. The investigator first selected the control and administered knowledge questionnaire which was followed by assessment of practice for 7 days using observational checklist. Each sample took 20 minutes to answer the questions. In the experimental group, first the researcher administered the self instructional discharge protocol followed by that practice was assessed for 7 days. At the end of 7 days the structured knowledge questionnaire was administered to the experimental group to assess the knowledge level of the nurses and their practice was assessed by using observational checklist. The self instructional protocol was given to the nurses in the control group at the end of the study.. The analysis for the pilot study revealed that ' t ' value to determine the effectiveness of self instructional discharge protocol on knowledge was 3. 85 and on practice was 11. 72 which showed high statistical significance at $P < 0. 05$. The result of the Pilot study were analysed and gave the evidence that the self instructional discharge protocol for cancer clients was reliable, feasible and practicable to conduct the main study.

RELIABILITY

The reliability of the tool was assessed using both test retest method and integrator method. The test retest was used to assess the reliability of the self instructional discharge protocol knowledge questionnaire where the r value was $r = 0.88$, hence the knowledge questionnaire showed high reliable with regard to observational checklist the integrator method was used. The r value was $r = 0.84$ which also proved high reliability of the tool hence the tools were found to be reliable to be used in the main study data collection.

PROCEDURE FOR DATA COLLECTION

The main study was conducted after obtaining formal permission from the Principal, Omayal Achi College of Nursing. Ethical Committee clearance was obtained from the International Centre for Collaborative Research and written permission was obtained from Medical Director, Nursing superintendent of Cancer Institute, Adyar. The study was conducted for a period of 4 weeks. A brief introduction of self and explanation on the purpose of the study was given. After obtaining written consent from the nurses, data collection was commenced. The investigator selected 60 nurses who fulfilled the sample selection criteria using the non probability convenience sampling technique from the medical and surgical oncology department of Cancer Institute, Adyar. At first, demographic detail was elicited using structured profile, and then the need assessment was done by using the positive worded questionnaire. The scale consisted of positive worded statements which were used to select the nurses based on the need. After the need assessment, to prevent bias, the investigator selected the experimental

group (n= 30) from the annexe hospital and control group (n= 30) from the main hospital of Cancer Institute. The participants were assigned an identification number to maintain confidentiality. The nurses in the control group were gathered in the well ventilated room and questionnaire was administered on the day one to assess their knowledge regarding discharge instruction . It took 30 minutes to the nurses to answer the question. No intervention was given for the nurses in the control group. Following this the nurses in the experimental group were gathered together in the well ventilated room in the annexe block which had comfortable seating arrangements and the self instructional discharge protocol for cancer patients was administered. Following this, both the groups were observed for 7 days, to record their practice using observational checklist. It took 10-20 minutes to record one observation for each nurse. After the seventh day, structured post test knowledge questionnaire was administered to the experimental group. On ethical grounds, the investigator administered self instructional discharge protocol for cancer clients for the control group. With that the study was concluded.

PLAN FOR DATA ANALYSIS

The data obtained were analyzed using both descriptive and inferential statistics.

Descriptive Statistics

Frequency and percentage distribution was used to analyze the selected demographic variables. Frequency and percentage distribution of level of need of the nurses in the control and experimental group Mean and standard

deviation was utilized to analyze the post test level of knowledge and practice.

Inferential Statistics

Unpaired ' t ' test was used to assess the effectiveness of self instructional discharge protocol between the control and experimental group. Correlation coefficient was utilized to find the relationship between post test level of knowledge and practice among control and experimental group. Chi square test was used to find out the association between post test level of knowledge and practice with selected demographic variables of the nurses.