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**A Qualitative Research Study to Assess the Knowledge Regarding Stoma Care among Staff Nurses in Tata Memorial Hospital, Mumbai**

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**Abstract**

**Introduction:** *Ostomy frequency is increasing worldwide. These are approximately 750,000 ostomies in United States. According to the survey conducted by Asia South Pacific Ostomy Association and of India, Mumbai as on June 2010-2012, there are 3 lakhs ostomates in India.*

*Many times, patients are embarrassed when they have to use public restrooms to empty their bag. Teach the patients with ostomies about the various methods of odour control.*

*Remind them that if the bag is clean and sealed well, odour usually is not a problem during normal activity. Types of ostomy procedures include colostomy, ileostomy and urostomy. The type performed depend on the location and extend of the disease or injury.*

**Methods:** *A Qualitative research study was adopted for this study. The study was conducted in selected hospital, TMH, Mumbai. 30 samples were selected by using Non-convenient probability sampling technique by means of learning methods. Structured questionnaire were used to assess the knowledge regarding care of ostomies among staff nurses.*

**Results:** *This study depicts that staff nurses with 0-10yrs of clinical experience had an average scoring between 11-19 with 36.7% and the total frequency in average scoring group is 20, with 66.7%. So there is an urgent need for specialized training session and lecture classes regarding stoma care, pouch care and post operative stoma care.*

**Introduction**

Ostomy frequency is increasing worldwide. These are approximately 750,000 ostomies in United States. According to the survey conducted by Asia South Pacific Ostomy Association and of India, Mumbai as on June 2010-2012, there are 3 lakhs ostomates in India.

A Stoma is a surgically created opening on the abdomen that is connected either to the digestive system or urinary system to allow waste (feces or urine) to be diverted out from the body. Types of ostomy procedures include colostomy, ileostomy and urostomy. The type performed depend on the location and extend of the disease or injury.

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Acolostomy involves surgically creating an opening in the abdomen and pulling through a portion of the large intestine. There are four main types; Ascending, Descending, Transverse and Sigmoid Colostomy. The site of colostomy is usually on the left quadrant (sigmoid colostomy), right upper quadrant (transverse colostomy) within the rectus muscle.

Reasons for ostomies are Crohn's disease, ulcerative colitis, familial adenomatous polyposis and total colonic Hirschsprung's disease, Diverticulitis and Colorectal cancer. An ileostomy is a surgically created opening in the abdominal wall, where the end of ileum (lowest portion of small intestine) is brought out through this opening to form a stoma. It is usually done on right quadrant within the rectus muscle.

A Urostomy is a surgically created opening for the diversion of urine in cases where drainage of urine through the bladder and urethra is not possible. The site is usually done on right lower quadrant within the rectus muscle.

Many times, patients are embarrassed when they have to use public restrooms to empty their bag. Teach the patients with ostomies about the various methods of odour control. Remind them that if the bag is clean and sealed well, odour usually is not a problem during normal activity.

### **Background of the Study**

A stoma operation causes profound changes in patient's life because of resulting physical damage, disfigurement, loss of bodily function and change in personal hygiene. Such changes are a cause of major concern for patients and raise important issues for the quality of care.

According to Persson E's perspective Study (2005) states that ostomy surgery affects life on a variety of levels. Nurses need to facilitate the patient's adaptation to life with a stoma and provide information and support to ease the transition. Information and counseling for patients having ostomies, both on the part of specialized nurses and colorectal surgeons, appeared to be deficient, suggesting that standards for quality of care require continuous evaluation and revision.

According to William J's Study (2007) states that the transition from hospital to home can be a worrying period of time for a patient with a newly stoma. It is well documented that discharge advice and community care is important. In most cases following discharge from hospital, the nurse specialized in stoma care will visit the patient at home as a means of maintaining continuity of care.

During the clinical rotation in surgical wards and ICU, we noted that patients are suffering from stoma-related problems mainly during night shift. Hence, we felt the need to assess the knowledge of ostomy care among staff nurses to conduct this study.

### **Statement of the Problem**

A Qualitative study to assess the knowledge regarding ostomy care among staff nurses in Tata Memorial Hospital, Mumbai.

### **Objective**

To assess the knowledge of staff nurses regarding ostomy care.

### **Operational Definition**

Assessment:-The process of gathering and judging the information on the level of knowledge regarding ostomy care as evaluated using structured questionnaire and checklist.

Ostomy:-A surgically created opening in the abdomen in order to divert urine or feces expel out from the body

Nurse:-A Person who has successfully completed GNM/B.Sc Nursing course and Registered under Nursing Council and working as a clinical nurse.

Effectiveness:-The extend to which the Nurses have enhanced their level of knowledge in ostomy care is measured by the marks scored in post test.

Knowledge:-It is an information or awareness that nurses have about ostomy care by using structured questinnare.

### **Scope of the Study**

Thorough knowledge regarding ostomy care in all aspects will help the nursing personnel working in hospital to reinforce them and to perform appropriately in rendering quality care to ostomates.

### **Assumptions**

Study helps to identify the knowledge of nursing personnel regarding ostomy care,thereby take measures to improve the knowledge by conducting seminars or workshops.

### **Hypothesis**

Identify the importance of conducting seminars/workshops regarding care of ostomated among staff nurses in hospital.

### **Limitations**

Study included the nurses only who

- Have completed the formal basic Nursing education.
- Works in Tata Memorial Hospital, Mumbai
- Are available during the period of data collection
- Are willing to participate in the study

### **Ethical Aspects**

- The study proposal has a sanction from Hospital Ethical Committee.
- Permission from the Medical Superintendent of the respective hospital was obtained
- Informed consent of the nurses was taken prior to their recruitment in the study.
- Study participant have given adequate information of the study.
- Permission from the concerned authorities of research setting was taken.

### **Conceptual Framework**

Pilot and Hunher (1991) stated that conceptual frameworks are interrelated concepts or abstractions that are assembled together in some rational scheme by virtue of their relevance to a common theme. Conceptual framework helps to stimulate research and the extension of knowledge by providing both direction and impetus.

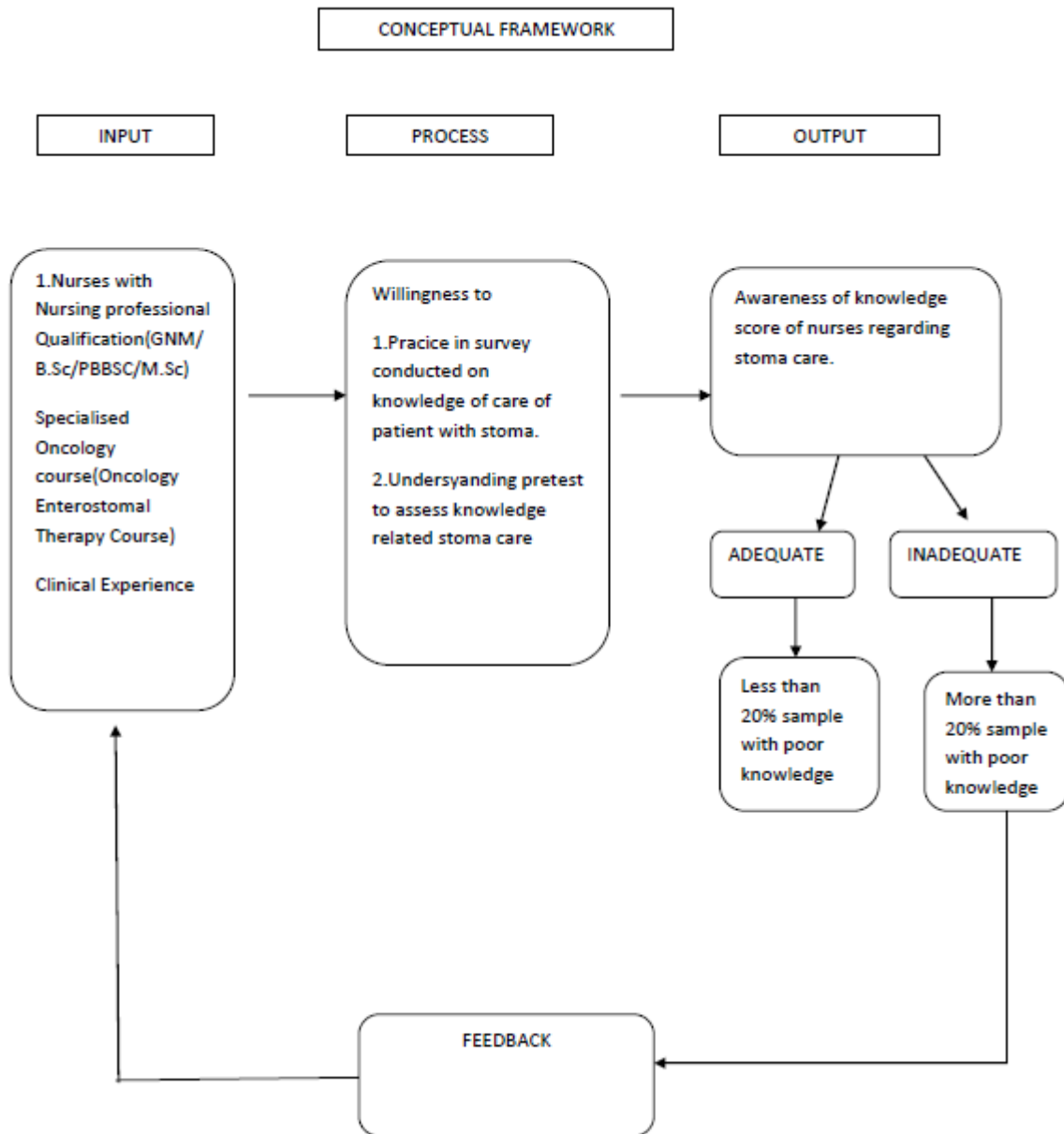
A Conceptual framework is a precursor of a theory. It provides broad perspectives for nursing practice, research and education. Conceptual framework plays several interrelated roles in the progress of science. This overall purpose is to make scientific and meaningful findings and also to generalize the findings.

The present study is focused on assessing the knowledge regarding ostomy care among staff nurses.

The study is based upon J.W Kenneys Open System Model. The system's theory is concerned with changes due to interaction between various factors in a situation. All living systems are open, in which there is continual exchange of, matter, energy and information. Open systems have varying degrees of interactions with the environment from which the system receives input and gives back output in the form of matter, energy and information.

Input refers to matters and information which are continuously processed through the system and related as outputs. After processing the input, the system returns output to the environment in an altered state, affecting the environment for information to guide its operation. This feedback information of environment responses

to the system's output is used by the system in adjustment, correction and accommodation to the interaction with the environment. Feedback may be positive, negative or neutral.



## **METHODOLOGY**

Polit D. & Beck (2008) “The techniques used to structure a study and to gather and analyse information in a systematic fashion”.

The methodology of this study includes the choice of the research design, sampling technique, development of tool, data collection procedure and method of analysis based on the statement and objectives of the study.

### **Research Design**

It is the overall plan for obtaining answers to the questions, being studies and for handling some of the difficulties encountered during the research process.

A Qualitative research design was used to assess the knowledge among the staff nurses through closed ended questionnaire.

### **Setting of the Study**

The study was undertaken in Tata Memorial Hospital, Mumbai. It is a 700 bedded cancer hospital.

### **Population**

Polit D. & Beck (2008) “A population is the entire aggregation of cases which a researcher is interested.

The population of the study were the staff nurses working in YMH, Mumbai.

### **Accessible Population**

Polit D. & Beck (2008) “The accessible population or source population is the aggregate of cases that conform to designated criteria and that are accessible as subjects for study”.

In this study accessible population were nurses whose working experience at least 1 year in clinical setting.

### **Sample**

Polit D. & Beck (2008) “Sample is a subset of population elements

In this study, the sample were those nurses who were working in Surgical ward, Radiation ward, Pediatric ward”.

### **Sample Size**

Polit D. & Beck (2008) “Sample size is a representative of the population.

In this study, sample size consists of 30nurses”.

### **Sampling Technique**

Polite D.& Beck (2008)”In purpose sampling researchers might decide purposely to select subjects who are judged to be typical of the population or particularly knowledgeable about the issues under the study.

The sample were selected by non-probability convenient method of sampling technique involves the conscious selection by the researcher of certain subjects of elements to include in a study.

Criteria for sample selection

#### **Inclusion Criteria:-**

1. Staff nurses who were completed the formal nursing education.
2. Woeking in TMH, Mumbai.
3. Available during period of data collection.
4. Willing to participate in the study.
5. Having minimum 1 years of experiencr.

#### **Exclusion criteria:-**

1. ANM nurses.
2. Incharge sister ,Nurse D and E
3. Age above 50years.

### **Setting of Study**

Setting is a physical location and condition in which data collection takes place in the study.

This study was proposed to be conducted in TMH, Mumbai.

### **Variable**

**Independent Variable:-**It is a stimulus or activity that is manipulated by the researcher to create an effect on the dependent variable.

In this study, stoma care is the independent variable.

**Dependent Variable:-** It is response,behavior or outcome that the researcher wants to predict or explain

changes in the dependent variable are presumed to be caused by the independent variable.

In this study, knowledge of the nurses is the dependent variable.

### **Tool Preparation**

In order to make the tool more practical oriented, the investigator informally observed the nurses of the hospital to assess their knowledge. This gives the investigator an idea where the nurses lack knowledge regarding ostomy care.

The questionnaire selected for the data collection.

SECTION 1:-Dealt with demographic data of the sample.

SECTION 2:-Consisted of multiple choice questionstion to assess the knowledge of the nurses regaeding stoma care. Total 30 questions are selected.

### **Scoring**

In knowledge a score of “1” was given for each correct answer and “0” for wrong answer. maximum score was 25.

0-10 marks	poor knowledge
11-19 marks	average knowledge
20-25 marks	good knowledge

### **Feasibility of the study**

It is a small scale test to determine the feasibility of a larger study .e.g, pilot study.

### **Technique**

Self administered questionnaire.

### **Pilot Study**

Polit d & Beck (2008) it is a trial run design of main study to list the methods to be used in a larger.

This was conducted on 5 easily approachable nurses working in TMH, Mumbai.

### **Method of Data Collection**

The questionnaire is used to assess the knowledge of nurses regarding stoma care.

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### Plan for Analysis

A descriptive statistics:-Mean, Standard deviation were used to assess the knowledge.

### Formulas used for Analysis

#### Mean

It is a single value within the range of the data that is used to represent all of the value of the series.

Mean=sum of values ( $\sum x$ )/ number of the values(n)

#### Standard Deviation (SD)/ $\sigma$

It is the most prominently used measure of dispersion.

$$SD = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

### Data Analysis and Interpretation

Polit and Hungler (1999) "Analysis is a process of organizing and synthesizing data such a way that research question can be answered and hypothesis tested".

This chapter deals with the analysis and interpretation of data collected from 30 nursing staffs working in Tata Memorial Hospital, Mumbai."A qualitative study to assess the knowledge regarding ostomy care among staff nurses in Tata Memorial Hospital, Mumbai".

The data coded and analysed as per the objectives of the study under the following headlines.

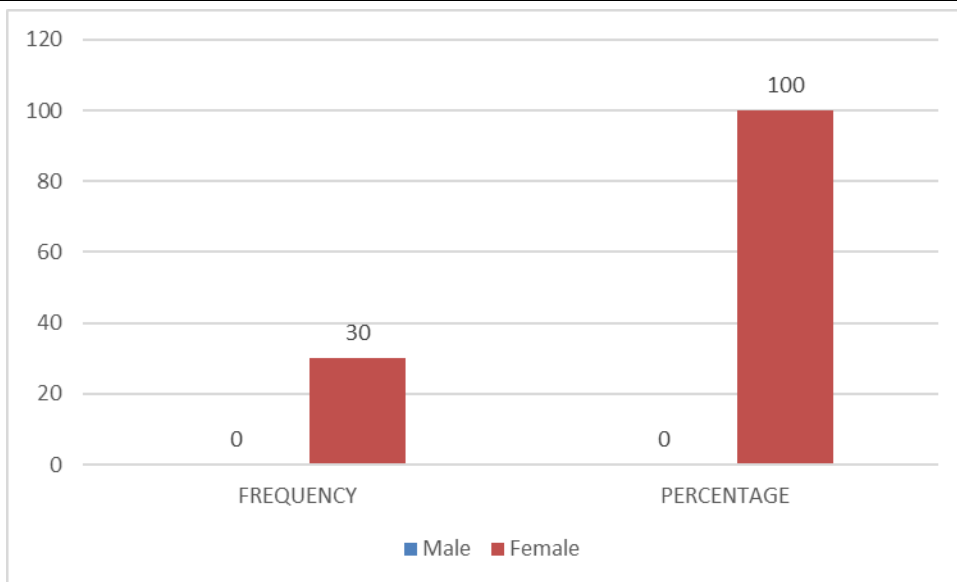
### SECTION A

Distribution of sample characteristics according to the Demographic variables.

- Gender
- Year of experience
- Educational qualification

#### SECTION A: Distribution of /sample according to the Gender

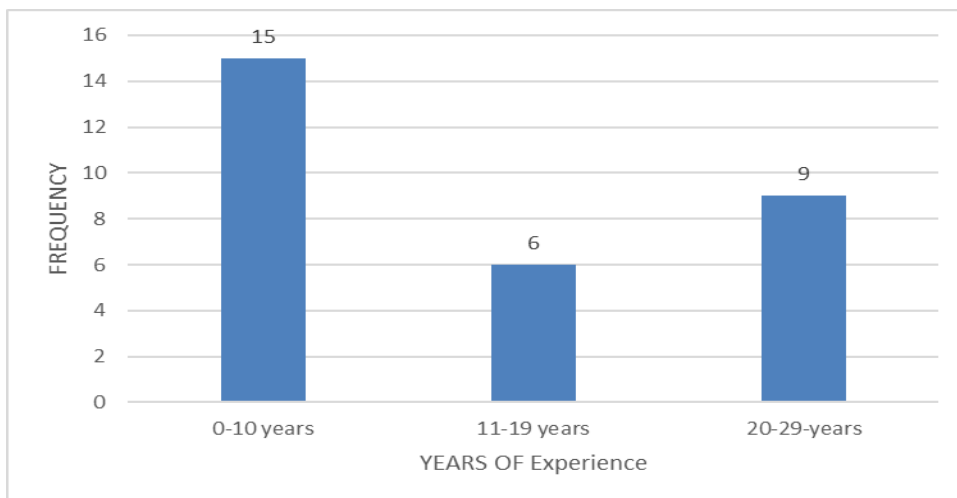
Gender	Frequency	Percentage
Male	0	0
Female	30	100



**SECTION B: Distribution of Nurses according to the Experience.**

Distribution of samples based on years of Experience

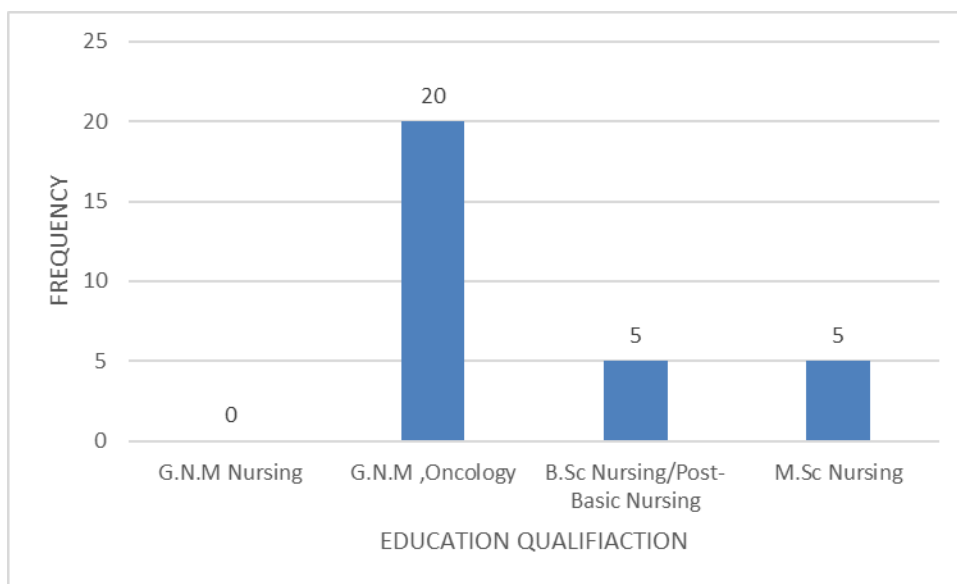
Years of experience	Frequency
0-10 years	15
11-19 years	6
20-29-years	9



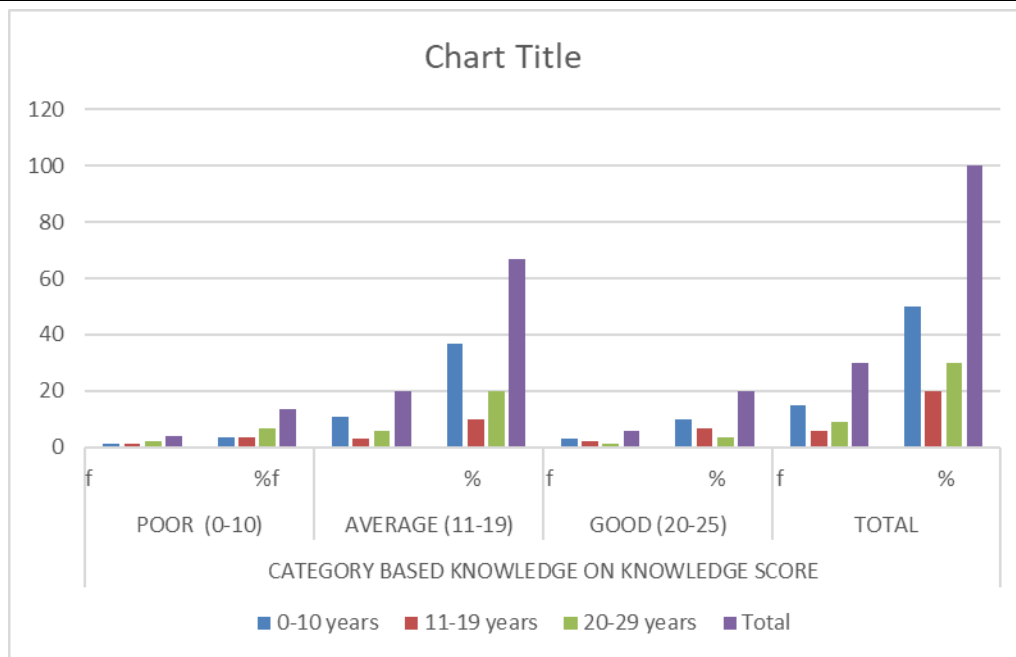
**SECTION C: Distribution of Nurses according to the Knowledge**

Distribution of samples based on the Educational level

Educational Qualification	Frequency
G.N.M Nursing	0
G.N.M ,Oncology	20
B.Sc Nursing/Post-Basic Nursing	5
M.Sc Nursing	5



YEARS OF EXPERIENCE ↓	CATEGORY BASED KNOWLEDGE ON KNOWLEDGE SCORE		AVERAGE (11-19)		GOOD (20-25)		TOTAL	
	POOR (0-10)							
	f	%	f	%	f	%	f	%
0-10 years	1	3.33	11	36.7	3	10	15	50
11-19 years	1	3.33	3	10	2	6.67	6	20
20-29 years	2	6.67	6	20	1	3.33	9	30
Total	4	13.3	20	66.7	6	20	30	100



This graph depicts that staff nurses with **0-10 years of clinical experience** has an average scoring between **(11-19) with 36.7%** and the total frequency in average scoring group was **20, with 66.7%. MEAN was 15.47, STANDARD DEVIATION 4.23**

So, there is an urgent need for specialized training session and lecture classes regarding stoma care, pouch care and post-operative stoma care.

## Summary Findings and Recommendations

### Summary

This chapter brief summary of the study and its significant findings.

It also includes implications and recommendations for further study.

This study was based on descriptive evaluator approach. The population was all the nurses working in Tata Memorial Hospital in Mumbai during the study period. The sample consisting of 30 nurses from various departments were selected.

### Problem Statement

A study to assess the knowledge regarding care among staff nurses working in Tata Memorial Hospital, Mumbai.

### **Objectives of the Study**

Objective of the study were to assess the knowledge regarding care among staff nurses.

### **Inclusion Criteria**

Inclusion criteria who were completed Diploma, Basic Nursing , Master Nursing Education available during the period of data collection willing to participate in the study.

### **Exclusion Criteria**

ANM Nurses

The sampling technique used in the study was non-probability convenient sampling. The tool was structure knowledge questionnaire checklist.

The content validity of the tool was done by 4 experts from Nursing Education Department Ms. Bharati and 3 from Stoma Clinic Department Enterostomal Therapist Ms. Sonal Rane, Ms. Bhakti Patenkar and Ms. Sujata Karne suggestions proposed were incorporated in tool and appropriate changes were made. The reliability of questionnaire was calculated by statistician.

The pilot study was conducted on October 5, 2019. As per laid down criteria 5 samples were selected.

The data gathering process was done from 18 October to 31 October 2019.

After explaining the objectives and purpose of the study, consent was obtained from them for participation in the study.

### **Major Findings of the Study**

The analysis of the demographic data of the study samples gives an idea about the general characteristics of the total nursing staff of Participating center, maximum number of respondents 0-10 years of clinical experience average scoring between (11-19) with 36.7% and 0-10 years of clinical experience belongs to poor 3.33%.

### **Discussion**

Findings of the study were based on the objectives of the study. Majority have Average knowledge 36.7% whose experience is (0-10 years) and poor knowledge 3.33% whose experience is 11-19 years.

### **Mean 15.47**

## **Standard Deviation 4.23**

### **Nursing Education**

The descriptive study shown samples have a less knowledge on pouch care and post operative care.

The study shows that the staff needs quick reference on basic practices on stoma care, video assessed modules, pamphlets for the nurses.

### **Nursing Assessment**

The study shows that the staff needs quick needs one day in inservice education programs, crash courses, films and videos.

The sample was only based on the knowledge.

### **Personal Experience**

The entire study has given enriching experience to the investigator. It helped to develop knowledge on stoma care, pouch care and post operative care. They have adequate knowledge on general stoma care (20.9) and poor knowledge on pouch care and post operative care.

### **Limitation**

1. The study is limited only to the nurses working in TATA MEMORIAL HOSPITAL, MUMBAI
2. The study is limited to registered and licensed nurses.
3. The study is limited to the experience level of the research.
4. A limited time available for data collection
5. The relevant literature was scanty as hardly any nursing study has been conducted in this topic.

### **Recommendation**

- A similar study can be replicate with the control group and on a larger population
- A similar study can be conducted.

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