

ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCE
SCHOOL OF ALLIED HEALTH SCIENCES
DEPARTMENT OF NURSING AND MIDWIFERY

ASSESSMENT OF KNOWLEDGE AND ASSOCIATED FACTORS REGARDING
COLOSTOMY CARE AMONG STAFF NURSES WORKING IN SURGICAL, ICU
AND ONCOLOGY UNITS AT SELECTED PUBLIC HOSPITALS, ADDIS ABABA,
ETHIOPIA,2017.

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A THESIS TO BE SUBMITTED TO ADDIS ABABA UNIVERSITY SCHOOL OF
ALLIED HEALTH SCIENCES DEPARTMENT OF NURSING AND MIDWIFERY IN
PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER
OF ONCOLOGY NURSIN

JUNE 2017

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ABSTRACT

Background: Colostomy is a stoma which is formed after removing the large bowel or colon and is opening in the abdominal wall that's made during surgery. The care of patients with colostomy is a complex, challenging and lengthy process. Nurses who care for colostomy must have knowledge and skills to carry out the procedures with safety and precision.

Objective: To assess knowledge and associated factors regarding colostomy care among Nurses working in Surgical, ICU and Oncology Units at selected public hospitals in Addis Ababa, Ethiopia 2017.

Methods: Institutional based quantitative cross-sectional study design was conducted in surgical wards, intensive care and oncology units of the five randomly selected public hospitals in Addis Ababa from March 15 to April 30, 2017. Simple random sampling technique deployed using structured self-administered questionnaire. Data was entered into Epi-data version 7 and exported into SPSS versions 20.0 for analysis. Descriptive statistics including, frequencies, proportion, mean and standard deviation was demonstrated by using tables, graphs and texts. Bivariate and multi-variate logistic regression analysis was computed considering $p < 0.05$ to be statistically significant.

Results: Overall 51.3% have a good knowledge of giving colostomy care. Those nurses who had greater than 97 months a clinical experience $\{(AOR=3.3; (1.481, 7.394))\}$ and nurses who gave care for greater than ten patients within the last six months $\{AOR=3.3; 95\% CI (1.480-7.394)\}$, nurses who were participated on training of colostomy care within the last six to eight months, referred related literatures on colostomy care within the past 6 months, attended colostomy scientific meetings and those who had been reading professional literatures regularly was found to be to have a significant association with good knowledge of colostomy care $\{AOR=1.9; 95\% CI (1.054, 3.467)\}$, $\{AOR=2.0; 95\% CI (1.101, 3.502)\}$, $\{AOR=2.7; 95\% CI (1.208, 5.843)\}$, $\{AOR=1.83; 95\% CI (1.062, 3.153)\}$ respectively.

Conclusion and recommendation: The study revealed that half of nurses (51.3%) had good knowledge on colostomy care. There need to design and implement knowledge increasing training program on colostomy care

Key words: Colostomy care, Staff nurses, Knowledge

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ABBREVIATIONS/ACRONOMY

AAU	Addis Ababa University
CD	Compact Disc
SD	Standard Deviation
QOL	Quality of Life
ETs	Entro Stoma Therapist
WOCNS	Wound Ostomy Continues Nurse
SPSS	Statistical Package for Social Science
ICU	Intensive Care Unit
IRB	Institutional Review Board
FMOH	Federal Ministry of Health
T A S H	Tikur Anbesa Specialized Hospital
M.II	Minilik Hospital
THH	Tor Hiyloch Hospital
ST.PMCH	Saint Paul medical Collage Medical Hospital
Z M B	Zewditu Memorial Hospital
B.H	Balcha Hospital
A.H	Alert hospital
RDH	Ras Desta Damtew Hospital
ST. P	SaintpetrousHospital
Y 12 H	Yekatit 12 Hospital

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1. INTRODUCTION

1.1 BACKGROUND

According to coloplast group, colostomy is a stoma which is formed after removing the large bowel or colon and is opening in the abdominal wall that's made during surgery(1). Colostomy may be safest form of treatment for a number of conditions including acute diverticulitis, rectal cancer, trauma, or inflammatory bowel disease. It is not a disease. Rather it is a way of correcting or bi-passing a disease or injury in the lower bowel when the colon is obstructed or injured using new route to expel body waste (2). Colostomy is linking large bowel to the abdominal wall (3). In general there are three different types of appliance used for colostomy: drainable appliance, minicapand plug. Clients who is with a colostomy usually use a minicamp, or a stoma plug, and in some cases a small bag to irrigate and small bag or a stoma plug can be used in clients who do not irrigate usually (4).

Patients with stoma suffer many difficulties both physical and psychological. A descriptive study have done in Nellore to measure post-operative care, quality of life issues and equipment problems of the 391 patients which revealed the main Colostomy problems like rashes, leakage and ballooning, and also explained that majority of patients experienced some changes in the life style and more than 40% of patients had problem with their sex life(5).

Care delivered by nurses and other healthcare providers have a most important role by changing the mind-set about colostomy and have a momentous impact on how patients and their families deal with colostomy (6). Nevertheless, this role successfully can be determined merely when nurses are supported by the requisite knowledge and skills. Type care delivered to colostomy patient can be depend on the type of colostomy (6).

Nurses must appraise patients for physical and emotional disabilities that may have an impact on the capability to carry out colostomy care. Patients can have comorbidities that obstruct harmonization and function, such as post-stroke weakness, Parkinson's disease, post-amputation, or severe arthritis, to name a few. Visual acuity also must be evaluated as problems can be identified and the plan of care modified. Even devastating frailty and fatigue can render ostomates too weak to perform the basic skills for self-colostomy care(7, 8). In general, colostomy is a way of treatment for some diseases and needs knowledge to provide the care. Nurses have great input in offering the colostomy care and educating the colostomy patients.

1.2 STATEMENT OF THE PROBLEM

The rate of colostomy is increasing worldwide. According different researches, there are approximately 750 thousands ostomates in the United States. Colostomy patients' age range from newborn to 90 years of age(6).Though, not all countries have clear and well documented statistical data on ostomates. On the other hand limited studies have been published in Ethiopia addressing colostomy care or colostomy educational programs(11).

According to retrospective study conducted in Addis Ababa in two Teaching Hospitals shows that the interval from the colostomy creation to colostomy closure varied from 8 weeks to 72 weeks with a mean interval of 28.2 weeks and overall incidence of complication was 19.5 % (13).

The purpose of colostomy is to treat and reduce patients' pain and discomfort created by obstruction or injury, but in many cases colostomy leads to intensified distress and suffering for patients and causes severe stress as a result of skin irritation (76%), pouch leakage (62%), offensive odor (59%), reduction in pleasurable activities (54%), and depression/anxiety (53%).

Having colostomy does not mean having a lifelong disability. Living well with colostomy can be achieved through patient preparation, education, and planning. Nurses who are knowledgeable in colostomy care can help a patient adjust to colostomy(14).

Nurses and other healthcare providers can play a key role in the perception and have a significant impact on how patients and their families adjust to the colostomy. However, this role is successful only when nurses are supported by the required knowledge and skills (11).

According to coloplast group that the level of the knowledge of the staff nurses about colostomy in the public hospital is unknown. There are additional demographic factors that contribute to the situation. These associated factors include school attended, specialization, sex, age and social background(1). According to a study conducted in Egypt the findings revealed that all of nurses had knowledge about the standards regarding-colostomy is at an unsatisfactory level (16).

Studies in Turkey indicated that the majority of nurses, who work with patients with intestinal colostomy, do not have enough knowledge about basic colostomy care and nurses have not accepted ostomy care as one of their responsibilities (33). However, nurses play an important role in initial assessment and the provision of educational support to colostomy surgery patients before and after surgery. Knowledge and skills of nurses affect the quality of patient care and education. Since patient care is one of the nurses' duties, they must have sufficient knowledge to give care for the patients (33).

Therefore, nurses' perception of their knowledge and skills influence patient education and satisfaction with care.

There are cases of colostomy nurse must have knowledge and skills to carry out the procedures with safety and precision. However, a study conducted in Philippines show that the nurse does not encounter colostomy in their everyday life and not all nurses are equipped with in handling colostomy care (17).However, there is limited data that shows knowledge of nurses and associated factors regarding colostomy care in Ethiopia.

1.3 SIGNIFICANCE OF THE STUDY

The care delivered to a patient with Colostomy determines the quality of life in terms of physical as well as psychological well-being of the patient. Therefore this study is intended to assess knowledge and associated factors about colostomy care among staff nurses which can act as baseline information for Policy or Decision makers and health care providing entities to conduct national research to understand country's wider figure.

It can also serve as important document for the selected institutions to assess the institutions' in-service training needs to improve their service delivery thereby improving the quality of nursing service provision which needs evidence based practice. Therefore, this study expected to provide overview for leaders and managers of organizations to make their service provision evidence-based and of quality.

Since there is a limited studies on the knowledge of nurses in public and private hospitals in relation to colostomy care the present study fills the knowledge gap that exists. This research can also be a source or stepping stone for other researchers in the area of colostomy care in Ethiopia.

2. LITERATURE REVIEW

2.1. INTRODUCTION

Colostomy is defined as an artificial opening of the colon in the abdominal surface. Colostomy is most frequently performed ostomy; followed by ileostomy and urostomy. It can be temporary or permanent (6). Nurses must be skilled in assessing the patient's physical, psychological, and cultural needs to provide appropriate care prior to hospital discharge (7). Nurses who are knowledgeable in colostomy care can help a patient adjust to colostomy. Assessment nurses' knowledge and associated factors of colostomy care regarding the nursing care standards of colostomy is base for nursing care (14, 16).

2.2. OVERVIEW OF COLOSTOMY CARE AMONG NURSES

According to New Island hospital in New York reports that many nurses do not have the chance to care for ostomates, or they withdraw from doing so because of inexperience, lack of formal training, or insecurities. The nurse's individualistic outlook toward colostomies, time constraints, and/or inadequate supplies all play a role in patient outcomes (18).

A descriptive study carried out in southern California illustrate that barely 30% of staff nurses surveyed agreed with the statement, "I care for colostomy patients frequently enough to keep up my ability in colostomy care." Upgrading staff nurses' ability to teach and reveal to patients complex care such colostomy care depends on the capacity to execute together with education and hands-on skills (9).

2.3. KNOWLEDGE OF NURSES REGARDING COLOSTOMY CARE

Ostomy operation is known worldwide as an efficient method of life preservation; it may cause various physical, social and mental disorders in patients. Specialized and adequate care during hospitalization is a Patient's right and nurses can help patients reduce problems caused by ostomy .In accordance with nursing duties, colostomy care is one of the nurse's responsibilities. Sufficient knowledge of nurses in dealing with patients with ostomy can affect accountability and proper guidance of patients and reduce the incidence of surgical complications. Surgical oncology staff nurses play an important role in initial assessment and the provision of instrumental and educational support to the patient with colorectal cancer (25).

A Cross-sectional Study conducted in Ankara to assess staff nurses' knowledge and perceived responsibilities for delivering care results; by appraising the answers of the nurses to all statements in general (54 propositions), the median value of the "I do not know/false" answers (27.50) was experiential to be close to the median value of the "true" answers (26.5), indicating that the staff nurses' knowledge of colostomy care was not at the desired level (7). Nurses who give care for patients with colostomy be supposed to have an all rounded knowledge of the issue. There is no way of saying these is all the tribulations that colostomy patients have, for the reason that the challenges they face vary depending on their medical history, health complications, religious back ground, educational level, the country they live in and their marital status(15).

According to a study conducted in Egypt, it was found that forty three subjects (82.7%) have satisfactory level with reference to the definition of colostomy. No more than five subjects (9.6%) understood the types of colostomy. Furthermore, the result point out those fourteen subjects (26.9) has satisfactory level about the causes of colostomy. Only four of the nurses (7.7%) were acquainted with the physiology of colon although twenty four of nurses (46.2%) identified anatomy of colon. Moreover, six study subjects (11.5%) have satisfactory level concerning the optimal nutrition nevertheless all nurses do not have satisfactory knowledge level on the subject of complications of colostomy, nursing care of colostomy and instruction should be given to patients. This result indicated that nurses had unsatisfactory knowledge in these areas (16).

In a study conducted in Nellore, India it was found that among 15 sample of staff nurses, 8(53.3%)have insufficient knowledge about colostomy care6(40%) have moderately adequate knowledge regarding colostomy care and 1(6.7%) have adequate knowledgeconcerning colostomy care (5).

A quasi-experimental study conducted in Mansoura University in Egypt discovered that the majority (82.9%) of the studied nurses had poor knowledge before the program consciousness while 80% and all of them had good knowledge in relation to intestinal stoma and its care instantaneously subsequent to 3 months of program implementation (28).

In another study conducted in University Hospital in Utrecht found that only 63% of the nurses where giving right psychological and physical care for the patients, the remaining 37% did not have sufficient knowledge to respond in the accurate way(9, 19).

Generally speaking, the knowledge of the Nurses who give care for patients with colostomy need to have an all rounded knowledge of the issue including health complications, religious back ground, educational level, the country they live in and their marital status. Recommendations to enhance colostomy knowledge can be practical in pre-service as well as in the workplace. Within the academic environment, education and practice as regards colostomy care can be done through in-class discussion by means of case studies and integrating clinical experiences with ostomates (19,25, 26).

2.4. FACTORS ASSOCIATED WITH KNOWLEDGE OF COLOSTOMY CARE

A study conducted in Turkey explains that factors that influence knowledge of colostomy care among nurses were; level of reviewing professional literature on colostomy care, number of years working as a nurse, level of education and participation in scientific meetings on colostomy care (7).

2.4.1. SOCIO-DEMOGRAPHIC CHARACTERISTICS

A correlational survey conducted on 50 colostomy care giving nurses from all India Institute of Medical Sciences; Delhi to assess the knowledge of colostomy care and the quality of life (QOL) of colostomy patients showed that clients quality of life while they were provided nursing care by knowledgeable nurses. There was a significant association between the knowledge of the nurses with age, sex, and duration of education, educational level, income, and occupation (18).

2.4.2 EDUCATIONAL FACTORS

A descriptive study which was done in Chandigarh to develop educational aid for nurses of patients having colostomy was found that the developed education aid were considerably successful in order to provide knowledge and skills to the nurses giving a nursing care for patient with colostomy (13). Nurses with high level of educational level and have more duration of education were more likely to have knowledge

In a Cross-sectional study conducted in Ankara found that the median scores of nurses who reported commonly reading professional literature or attending ongoing education sessions were advanced than those of nurses who reported that they did not regularly read professional literature (7).

2.4.3 OTHER FACTORS

The nurses require to practice on the medical equipment that the patients with colostomy use. But that is not happening because of scarcity that makes the nurse ignorant of the equipment techniques (27). The study conducted by the Ministry of Health of Ethiopian on cancer in order to prepare a control and a treatment plan for the year up-until 2030 demonstrates that one of the contemporary challenge of health workers is the deficiency of equipment's. The study substantiated that the government will develop a cancer intervention strategy which enable the health workers, nurses included, based a training of health professional with full equipment's. Getting training on the colostomy care equipment is vital for nurses to encompass a full knowledge (27).

Moreover, the Study conducted in Jordan showed that Jordanian hospitals should be encouraged to hire Entero stoma Therapists (ETs) or Wound Ostomy Continence Nurse (WOCNs) to formulate and implement colostomy care policies and guidelines. In addition, these specialized nurses can develop supplementary educational programs for the bedside nurse to become more experienced in colostomy care (9).

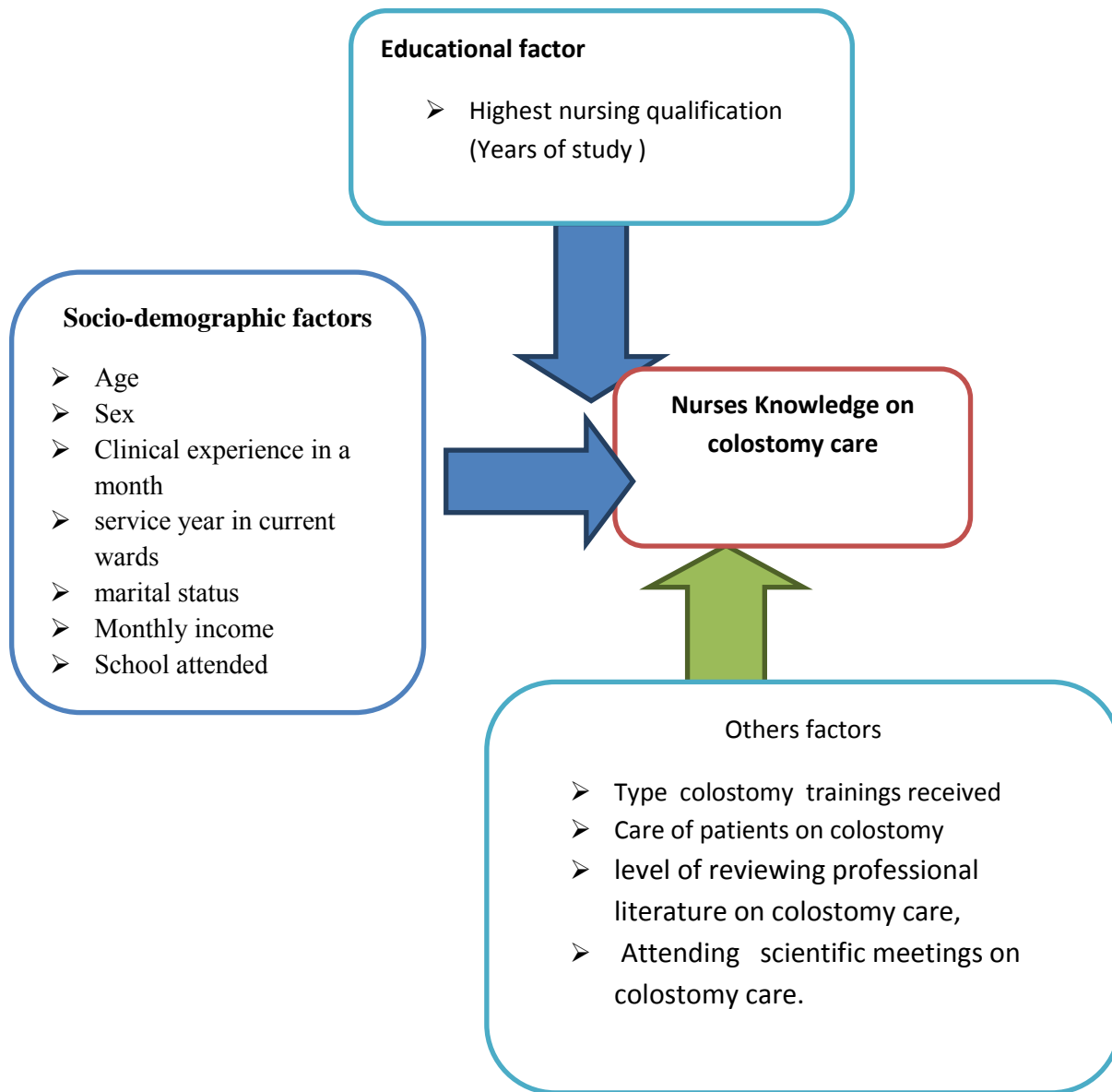


Figure 1. Conceptual frame work of knowledge of colostomy care among staff nurses developed by Principal investigator after literature review.

3. OBJECTIVES

3.1 General objective:

- To assess knowledge and associated factors regarding colostomy care among staff nurses working at surgical, ICU and Oncology units in selected public hospitals in Addis Ababa, Ethiopia, 2017.

3.2 Specific objectives:

- To determine knowledge of staff nurses about colostomy care in selected public hospitals in Addis Ababa.
- To identify associated factors of colostomy care among staff nurses working in selected public hospitals in Addis Ababa.

4.METHODOLOGY

4.1The Study area and period

The study had been carried out at five randomly chosen public hospitals amongst staff nurses working in surgical, ICU and oncology units in Addis Ababa from March 15 to April 30, 2017. Addis Ababa is the capital city of Ethiopia; with an estimated population of 3,048,631 occupying a total of 540 sq.km according to the 2012 census. The city is divided into ten sub-cities and 116 Woredas, the smallest administration unit. In the city there are 14 public hospitals; of which twelve of them are providing colostomy surgery. TASH is the largest referral hospital situated in the core of the city. It is the merely center for diagnoses, treatment and care of patients with cancer in the country. The Hospital had a total of 627 nurses and 600 beds; of which 18 beds were dedicated to adult cancer patients' and 26 beds were devoted to pediatric oncology and hematology. Minilik II Hospital encompasswith 396 professionals, out of which 122 were nurses. St. Paul is the second biggest hospital in Addis Ababa and 800 clinical stuffs, out of which265 nurses.Zewditu hospital has 277 nursing staff and 62 staff physician and Yekatit 12 has 228 nursing staff and 64 staffphysician(29). The nurse staffs had been selected from surgical ward and surgical ICU and specifically for TASH also from oncology ward.

4.2 Study design

An institution based quantitative cross-sectional study design was employed.

4.3 Source population

All nurses working in Surgical, Oncology and ICU wards in public hospitals in Addis Ababa during the time of data collection

4.4 Study population

Eligible nurses working in the Surgical, Surgical ICU and Oncology units of the five randomly selected public Hospitals in Addis Ababa.

4.5 Inclusion and exclusion criteria

4.5.1 Inclusion criteria

- Staff nurses working in surgical wards, ICU and Oncology units with experiences of above 6 months.

4.5.2 Exclusion criteria

- staff nurses those were on annual and sick leave during the study period

4.6 Sample size determination

The assumption to evaluate the actual sample size was by using 95% CI with 5% marginal of error. Since there is no similar published study found in the country that addressed the prevalence of the knowledge of nurses that deal with colostomy patients, the researcher premeditated to make use of 50%. With this assumptions using a single population proportion formula

$$n = \frac{\left(Z \frac{\alpha}{2} \right)^2 p(1-p)}{d^2} \text{ Where, } n = \text{ is the required sample size}$$

z = the value of the standard normal curve score corresponding to the given

Confidence interval = 1.96

p = (50%) for the reason that there is no related study which are conducted in the country.

d = margin of error 5%

$$n = \frac{(1.96^2)(0.5(1-0.5))}{0.05^2} = 384$$

In view of the fact that the population is less than 10,000 a correction formula has been used. Therefore using the correction formula:

$n = \frac{n_0}{1 + \frac{n_0}{N}}$ Where n_0 is the initial sample size and N is the total population

$$n = \frac{384}{1 + \frac{384}{1690}}$$

$$n = 312$$

Subsequent to adding 10% for non-response rate the final sample size has been = 343

4.7 Sampling technique

Study settings were selected by using simple random sampling method and the study subjects were selected by applying simple random sampling from the staff nurses list at the five randomly selected public hospitals in Addis Ababa

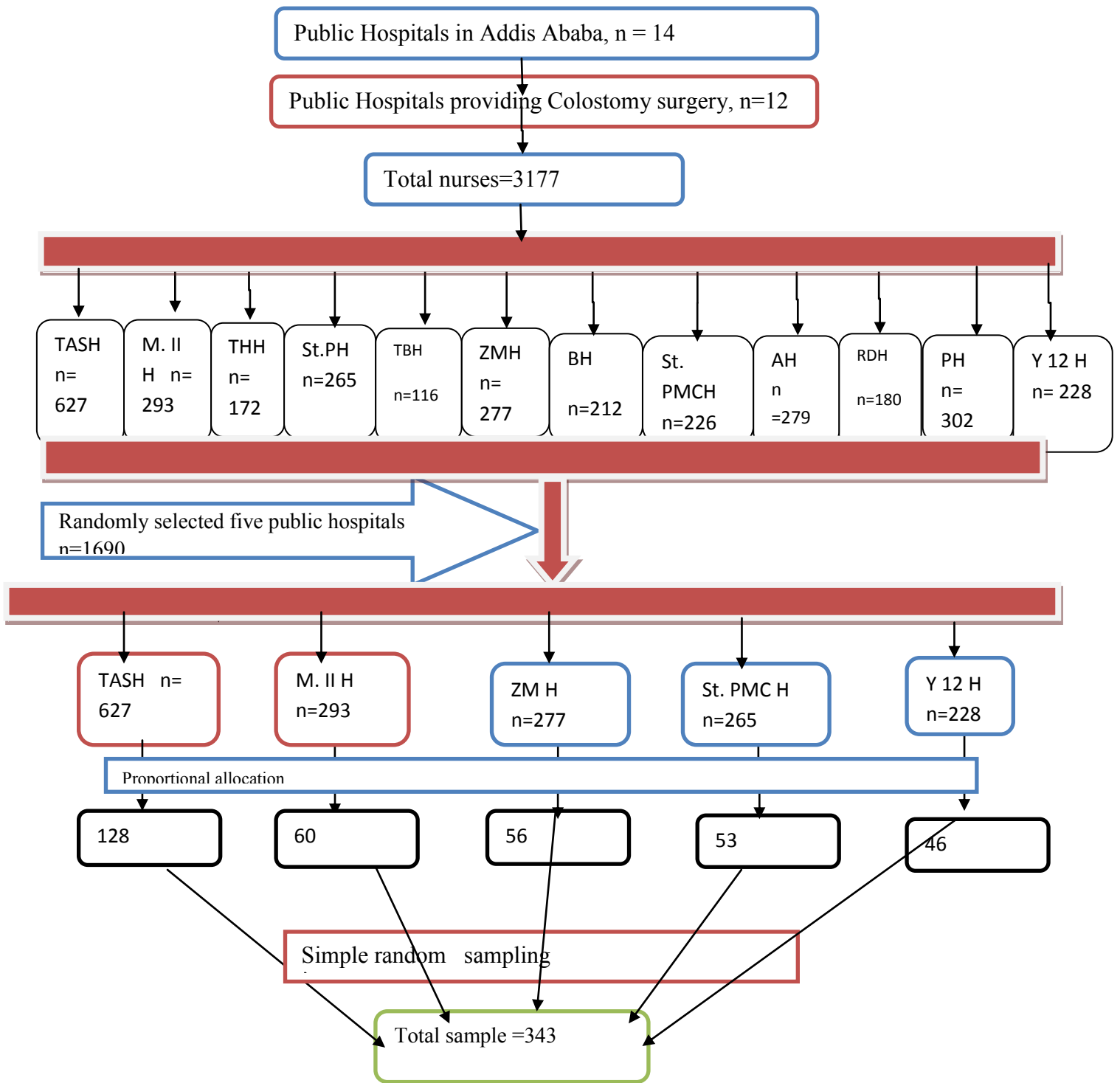


Figure 2. Schematic presentation of sampling procedure

T A S H Tikur Anbesa Specialized Hospital
M.II Minilik Hospital
THH Tor Hiyloch Hospital

ST.PMCH Saint Paul medical Collage Medical Hospital
Z M B. Zewditu Memorial Hospital
B.H. Balcha Hospital

A.H. Alert hospital
RDH. Ras Desta Damtew Hospital
ST. P. Saint petrous Hospital
Y 12 H. Yekatit 12 Hospital

4.8 Study variables

4.8.1 Dependent variable

- Knowledge about colostomy care

4.8.2 Independent Variables

- Socio demographic characters of the nurses including
 - Sex
 - Age
 - work experience
 - Service months /year in current ward
 - Department
 - Monthly income
 - School attended
 - Years of study
 - Type of trainings in colostomy received
 - Attending scientific meetings on Colostomy care
 - Level of reviewing professional literature on Colostomy care
 - Highest nursing qualification

4.9 Operational definition

- High knowledge: when the sum score of knowledge question was above the mean score.
- Low knowledge: when the sum score of knowledge question was below the mean

4.10 Method of data collection and tool

All the data that were required for the study had been collected using a structured, self-administered questionnaire which was adapted by revising various related researches (7,26,31, 32). For the data collection the selected study subjects had been approached by waiting for the nurses at their shift changing schedule.

The tools were pre-tested in 5% of total sample size for their dependability and lucidity at Ras Desta Damtew Memorial Hospital. Rearticulating of uncertain words was modified while indispensable. One supervisor BSC nurse closely follow up the data collection process and three data collectors that were not employees in the study settings had been engaged to stay away from prejudice. Training was given to them for two days for both data collectors and supervisors on the purpose and relevance of the study, secrecy of information and privileges of the respondents. The questionnaires were distributed to study subjects and filled data had been collected and checked on daily bases for its completeness.

4.11.Data quality assurance

The instrument was pretested in 5% of subjects before the valid day of data collection. Questionnaire was prepared in English and then translated in to Amharic by a translator then interpreted in to English to verify for consistency. Supervision was made on daily bases and the records checked for entirety every day by the main researcher.

4.12. Data analysis and interpretation

The data was cleaned and entered into Epi-info version 7 and then the exported to SPSS versions 20.0 for analysis. Descriptive statistics including, frequencies, proportions, mean and standard deviation was displayed by using tables, graphs and texts. Logistic regression such as bivariate and multi-variate analysis was computed to examine the association between dependent and independent variables. Those with $p < 0.05$ was considered as statistically significant.

4.13. Ethical consideration

Ethical clearance was obtained from IRB of AAU, College of Health Sciences, School of Allied Health Sciences department of Nursing and Midwifery and from respective hospital Medical directors.

Written consent was sought from the participants to certify their willingness. For confidentiality reason the names of the study participants remain anonymous. Straight ward justification of the research purpose, description of the benefits offer to answer all inquiries were been made to the respondents. Materials used in preparation of the thesis had been acknowledged properly.

4.14. Dissemination and utilization of results

The result of the study will be submitted and presented to AAU, College of Health Sciences, School of Allied Health sciences department of Nursing and Midwifery. Then it will disseminate to Zewditu Memorial, Yekatit 12 Hospital, St Paul, Tikur Anbesa and Minilik II hospitals. Then it will be presented in a national and international conferences and it will also be processed to be published in scientific journals nationally as well as internationally.

5. RESULTS

5.1 Socio demographic characteristics of Health service providers

From the total of 343planned study participants, Complete Response rate was obtained for 339 (98.8%).Of this participants 59 (17.4 %) were from Minilik II hospital, 53 (15.6 %) were from St Paul,medical health collage 54 (15.6%) were from Zewditu Memorial hospital, 128 (37.8) were from TASH and 45 (13.3 %) were from Yekatit 12HMC.

In this study the mean age of study participants was 28.78 years and with $SD\pm 6.934$, the maximum and minimum ages of respondents were 21 and 57 respectively. Two hundred thirty four (69%) participants were female whereas 105 (31 %) were male. The study participants were comprised of 201 (59.3 %) nurses from surgical ward, 93 (27.4%) nurses from ICU and 45 (13.3) nurses from oncology ward.

From the Total of 339 participants majority of them 275 (81.4 %) are degree holders. and 194 (57.2 %) of them reported being married. Regarding the schools attended by the study participant nurses 178 (52.5 %) have attended private school where as the remaining 161 (47.5 %) attended government schools nurses. Among the participants (28.9 %) of them have less than 5000 ETB income per month (Table 1).

Table 1 Distribution of socio demographic characteristics of Nurse staff in Selected Public Hospitals in Addis Ababa, Ethiopia, 2017 (N=339)

Characteristics	Frequency	percent
Hospital		
Minilik	59	17.4
St pual	53	15.6
Zewdit	54	15.9
Tikur Anbessa	128	37.8
Yekatit 12	45	13.3
ward		
ICU	93	27.4
Surgical ward	201	59.3
Oncology	45	13.3
Age		
20-29	249	73.5
30-39	62	18.3
40-49	16	4.7
50-59	12	3.5
sex		
Male	105	31.0
Female	234	69.0
Nursing qualification		
MSC	13	3.8
BSC	276	81.4
Diploma	41	12.1
Other*	9	2.7
Marital status		
Married	137	40.4
Single	194	57.2
Divorced	4	1.2
Widowed	4	1.2
Monthly income		
<4000	93	27.4
4001-5000	98	28.9
5001-6000	49	14.5
6001-7000	50	14.7
>7000	49	14.5
school		
Private	178	52.5
Governmental	161	47.5

NB *Assistance Nurses

5.2. Knowledge of the study participant nurses

Regarding patient education and advice; 167 (49.3 %) of the participants had low knowledge on Diet and fluid intake recommended for colostomy patients, 114 (33.6 %) had high knowledge. On how to prevent skin sensitivity about 85 (25.1 %) of the participants reported having very low knowledge, 180 (53.1 %) reported having low knowledge. Regarding bathing with colostomy only 68 (20.1 %) of nurses reported having very high knowledge. On the time of patients to return to previous activities 209 (61.1 %) stated having low knowledge whereas 54 (15.9 %) reported having high knowledge.

Most of the nurses 195 (57.5%) had reported as having low knowledge about nursing intervention of colostomy care whereas 25 (7.4%) had reported as having very high knowledge. 90 (26.5 %) had responded as having very low knowledge, 193 (56.9 %) as having low knowledge and 49 (14.5 %) as having high knowledge regarding performing colostomy irrigation. Most of the study participants had reported as having low knowledge 183 (54 %) about colostomy products and their uses. . Most of the study participants have responded us having low knowledge 183 (54 %) about colostomy products and their uses.

Among participants 174 (51.3 %) were reported having good knowledge, and 165 (48.7%) reported having poor knowledge of colostomy care within the mean score of 36.52(FIG.3)

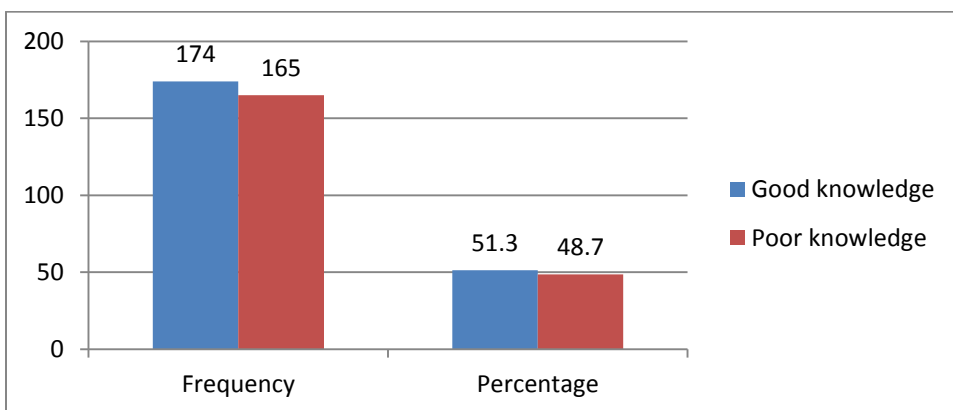


FIG3: Over all knowledge of nurses towards colostomy care in staff Nurses in selected public hospital, Addis Ababa Ethiopia, 2017.

5.3 Factors related to knowledge of colostomy care

About 173 (51 %) have taken colostomy care courses during their nursing study whereas 166 (49 %) haven't taken colostomy care courses in their nursing qualification study.

Most of the study participants 145(42.8%) have cared for less than 5 patients in the past six months period prior to the study. Among the study participants 252 (74.3%) haven't had training on colostomy care within the last six to eight months. Two hundred fourth two (71.4%) haven't referred literatures on colostomy care within the past six months. And also 296 (87.3%) said haven't attended meetings on colostomy care. 107 (31.6%) have reported they have read professional literatures frequently whereas 232 (68.4%) said haven't read professional literatures frequently (Table 2).

Table 2. Factors related to knowledge of colostomy care among nurses working in selected public hospitals in Addis Ababa Ethiopia, 2017.(N =339)

Characteristics	Frequency	percent
Total service year in a month		
<24	128	37.8
24-48	202	59.6
48-72	4	1.2
72-96	4	1.2
>97	1	.3
participant experience in current ward in a month		
<24	117	34.5
24-48	104	30.7
48-72	43	12.7
72-96	26	7.7
>97	49	14.5
Have you taken course on colostomy during study		
YES	173	51.0
NO	166	49
Number of patients with colostomies have cared for in the last 6 months		
<5PATIENTS	145	42.8
5-10PATIENTS	98	28.9
10PATIENTS	96	28.4
Received training on colostomy care within the last six to eight months		
YES	87	25.7
NO	252	74.3
Referred to literatures on Colostomy care within the past 6 months		
YES	97	28.6
NO	242	71.4
Ever attended colostomy scientific meetings		
Yes	43	12.7
No	296	87.3
Meetings on topics related to colostomy care		
Yes	59	17.4
No	280	82.6
Read professional literatures regularly		
YES	107	31.6
NO	232	68.4

5.4 Factors associated with knowledge

Bivariate and multivariate analysis was performed between knowledge of colostomy care (dependent variable) and socio demographic status of Nurses (independent variable). Binary Logistic regression was performed to assess the association of each independent variable with knowledge of colostomy care. The factors that showed a p-value of 0.2 and less were added to multivariate regression model. In multiple logistic regression analysis: Clinical experience, giving care for patients within the last six months, attending colostomy scientific meetings, reading professional literatures regularly, participating on training on colostomy care within the last six to eight months and referring literatures on colostomy care within the past 6 months remains significantly associated with knowledge of colostomy care.

Those nurses who had greater than 97 months a clinical experience were 3.3 times more likely to have a good knowledge on colostomy care {(AOR=3.3;(1.481, 7.394)} compared to those have clinical experience less than 24 months and Nurses who gave care for greater than ten patients within the last six months were 3.3 {AOR=3.3; 95% CI (1.480-7.394)} times more likely to have knowledge about colostomy care when compared with nurses who gave care for less than five patients within the last six months.

Nurses who were participated on training of colostomy care within the last six to eight months, referred related literatures on colostomy care within the past 6 months, attended colostomy scientific meetings and those who had been reading professional literatures regularly was found to be almost 2, 2, 3, and 2 times more likely to have good knowledge of colostomy care { AOR=1.9; 95% CI (1.054,3.467)}, { AOR=2.0; 95% CI (1.101, 3.502)}, { AOR=2.7; 95% CI (1.208, 5.843)}, { AOR=1.83; 95% CI (1.062,3.153)} compared to don't get training, don't refer literature, did not attend scientific meeting and did not read professional literature respectively.

5.5 Factors associated with staff nurses knowledge of colostomy care in selected public Hospitals, AA, Ethiopia (n=339).

Variables	Knowledge		COR(95%CI)	AOR(95%CI)
	Good	Poor		
Clinical experience				
➤ <24	69(20.4)	48(14.2)	1.00	1.00
➤ 24-48	52(15.3)	52(15.3)	1.0(0.591,1.647)*	1.6 (0.910,2.841)
➤ 48-72	15(4.4)	28(8.3)	1.8(1.973, 3.2074)*	2.4(1.186, 5.513)**
➤ 72-96	11(3.2)	15(4.4)	1.08 (0.461, 2.548)	2.5(1.981, 6.177)**
➤ >97	18(5.3)	31(9.2)	0.79(0.300, 2.091)	3.3(1.481, 7.394)**
Cared for Patients within last six months				
➤ <5PATIENTS	73(21.5)	72(21.2)	1.00	1.00
➤ 5-10PATIENTS	49(14.5)	49(14.5)	1.8(0.974, 3.207)	2.6(1.186, 5.512)**
➤ >10PATIENTS	52(15.3)	44(13.0)	0.4(0.189, 1.040)	3.3 (1.480, 7.394)**
Received Training				
➤ Yes	33(9.7)	54(16.0)	2.1(1.262, 3.425)*	1.9 (1.054,3.467)**
➤ No	141(41.6)	111(32.7)	1.00	1.00
Referred Literature				
➤ Yes	36(10.6)	61(31.4)	2.3(1.385, 3.649)*	2.0 (1.101, 3.502)**
➤ No	138(40.7)	104(30.7)	1.00	1.00
Scientific meetings				
➤ yes	30(8.9)	13(3.8)	2.40 (1.22, 4.85)*	2.7(1.208, 5.843)**
➤ No	144(42.5)	152(44.8)	1.00	1.00
Reading regularly related articles				
➤ yes	44(13.0)	63(18.6)	1.8(1.147,2.902)*	1.83(1.062,3.153)**
➤ No	130(38.3)	102(30.1)	1.00	1.00

*P value is significant at p< 0.2

** P value is significant at P < 0.05

6 DISCUSSIONS

This facility based cross sectional study has attempted to assess the knowledge and associated factor of colostomy care among nurses of public hospitals in Addis Ababa, Ethiopia.

The study found that about half of nurses (51.3%) had good knowledge of colostomy care. The level of knowledge was found to be low in this study, half of respondents were knowledgeable. Knowledge of colostomy care documented in this study finding was inconsistent with the findings in Nellore where relatively high participants (75.9 %) were knowledgeable about colostomy care (5). And also the study done in Albanian revealed that 74 % of the respondents were knowledgeable towards colostomy care (33). The difference of the result might be due to lack of information access and difference of the study location.

In the present study less than half of the nurses reported their knowledge at high and very high levels regarding types of colostomy. An incomparable finding was reported in the study conducted in Iran among nurses (32). This difference could be due to difference of geographical location and accessibility of updated information, those nurses had access to internet and updated information can gain more knowledge (32).

Majority of the Nurses mentioned their level of knowledge at low and very low on the preventing skin sensitivity and Constipation symptoms and control in colostomy patients. In consistent findings was reported in Iran where more than half of Nurses were reported their level of knowledge on skin sensitivity and Constipation symptoms and control in colostomy patients. This gap can be explained due to the setting difference among the studies. All nurses need to have knowledge of colostomy care which indicated that information of colostomy care was inadequate among Nurses (32).

Regarding to symptoms of obstruction and its control low level of knowledge was reported by nurse. This finding was the same with findings which was reported among nurses in Iran (32). Majority of Nurses had low level of knowledge regarding complication of colostomy in the current study. Same finding was reported in Iran where nurses mentioned their level of knowledge low concerning to complication of colostomy (32).

Relating to the association of factors, there was no statistically significant association of socio demographic factors and knowledge of colostomy care in current study. This result was consistent with the study conducted in Nellore among nurses where there was no association between risk factors and knowledge of colostomy care (5). But the study conducted in India Institute of Medical Sciences; Delhi revealed there was a significant association between the knowledge of the nurses with age, sex,

and duration of education, educational level, income, and occupation (18). This discrepancy might be due to difference in the study setting, socio demographic factors, and sample size and study design. The previous study used correlational survey, where as the current cross sectional study design.

Having high clinical experience that is greater than 97 months (greater than 8 years) {(AOR=3.3 ;(1.481, 7.394)} and the possibility to give care for a number of patients {AOR=3.3; 95% CI (1.480-7.394)} has statistically significant association with good knowledge about colostomy care. The present finding was in support with a study conducted in Turkey which explained that factors that influences knowledge of colostomy care among nurses were; number of years working as a nurse (7). That might be explained as nurses' experience increased, they became familiar with the subject matter thereby acquire knowledge and skills to carry out the procedures with safety and precision.

A Cross-sectional study conducted in Ankara found nurses who reported commonly reading professional literature or attending ongoing education sessions had advanced knowledge than those of nurses who reported that they did not regularly read professional literature (17). That finding was in line with the current finding those who had been reading professional literatures regularly, {AOR=1.83; 95% CI (1.062, 3.153)}, referred related literatures on colostomy care within the past 6 months,{AOR=2.0; 95% CI (1.101, 3.502)}, and attended colostomy scientific meetings {AOR=2.7; 95% CI (1.208, 5.843)}, had a significant positive relation with having a good knowledge of colostomy care. This could be justified as those who regularly read professionally related literatures can update their knowledge there by providing quality care.

Nurses who were participated on training of colostomy care within the last six to eight months had a significant knowledge of colostomy care, { AOR=1.9; 95% CI (1.054,3.467)},which could be supported by another study stating as getting training on the colostomy care was vital for nurses to encompass a full knowledge (27). This might be due to the reason that through related training a new skill as well as knowledge could be acquired and implemented in clinical setup.

7 Strengths and limitation of the study

7.3.1 Strengths

- This study is the first study that attempted to assess nurses knowledge related colostomy care
- Found base line information for future health plan.
- Can be used as base line data for future study.

7.3.2 Limitation

- Lack of literatures hinders further discussion and comparison
- Self-assessment of knowledge level.
- Since the study design is cross sectional it cannot revealed cause effect

8. CONCLUSION AND RECOMMENDATION

8.1 Conclusion

The study found that there was a relatively good knowledge of colostomy care and also came up with Clinical experience, giving care for patients within the last six months, attending colostomy scientific meetings, reading professional literatures regularly, participating on training on colostomy care within the last six to eight months and referring literatures on colostomy care within the past 6 months had significantly associated with knowledge of colostomy care. There is a need to design knowledge increasing intervention plan and implementation.

8.2 Recommendation

Federal ministry of Health

- Should have to prepare training on colostomy care in order for nurses provide quality colostomy care for colostomy patients.
- Should have to prepare small scale library so that nurses can access it and update the knowledge of colostomy care.
- Should give chance for nurses to attend colostomy scientific meetings

Nursing school

- Nursing school should give more attention on colostomy care course during pre-service education.

Hospitals

- Should assign nurses who have adequate colostomy care experiences.
- Should have to prepare small scale library so that nurses can access it and update the knowledge of colostomy care.

Other researchers

- Should further incorporate other factors using longitudinal or qualitative study designs.
- Interventional study should be done.

9. REFERENCE

1. Group Shias High Impact Actions for Stoma Care. 2010.
2. Center c-sm. patient education and instructional booklet for the patient with colostomy. 2004.
3. Nugent KP DP, Stewart B, Patankar R, Johnson. Quality of life in stoma patients. Dis Colon Rectum. 1999.
4. Bøgebjerg C. Colostomy Background and Consequences. 2006.
5. G Betty Lebona G, Elizabeth Jasmine S, Kanaka Lakshmi R, Dr. Indira S. Assess the knowledge regarding colostomy care among staff nurses and nursing students in NMCH, Nellore. International Journal of Applied Research 2016; 2(5): 306-310.
6. association.inc uo. colostomy guide. 2011.
7. Nazike Duruk HU. Staff Nurses' Knowledge and Perceived Responsibilities for Delivering Care to Patients With Intestinal Ostomies. 2013.
- 8 Ontario RNAo. Ostomy Care and Management. 2009.
9. Et.al RG. What Do Surgical Oncology Staff Nurses Know About Colorectal Cancer Ostomy Care The Journal of Continuing Education in Nursing 2011.
10. Maha M. Subih TMON. Ostomy Educational Program for Nurses in Jordan. 2014.
11. Et.Al JC. Burdens among Caregivers of Older Adults with Advanced Cancer and Risk Factors. Asian Pacific Journal Cancer Prevention. 2014;15.
12. A. Bekele BK, H. Biluts. Outcomes of Colostomy Reversal Procedures in Two Teaching Hospitals in Addis Ababa, Ethiopia. East and Central African .
13. Society Ac. Colostomy: A Guide. 2014.
14. Al HALe. Quality of life of family caregivers of cancer patients in Singapore and globally. Singapore Medical Journal. 2016..
15. Nabeel M. Bhzeh DNSea. Colostomy: Developing Nursing Care Standards for Patient with Colostomy. Med J Cairo Univ 2013.
16. JD, Gopez. Colostomy Care Nursing Procedure. 2017.
17. Dorman C. Ostomy basics: A nurse's introduction to care, counseling, and equipment 2009.
18. Deshpande R. Effectiveness of planned nursing intervention on knowledge and practice of selected aspects of care provided by caregiver of children with colostomy admitted in hospitals of Mumbai. IJNH. 2015.

19. Flanagan M. Barriers to the implementation of best practice in wound care. 2013.
20. Gao Y. New stoma patients' experiences during post-operative nursing care. 2012.
21. Crawford D TT, Hurt, Van Aelst R, Glaza L, Vander L K J. Traditional Nurse Instruction Versus 2 Session Nurse Instruction Plus DVD for Teaching Ostomy Care- A Multisite Randomized Controlled Trial. 2012.
22. I. B. Testing a computer-based ostomy care training resource for staff nurses. 2010.
23. D B. Effect of Health Education Approach on Anxiety of Rectal Cancer Patients after Colostomy. 2012.
- 24 Sahar Farouk Hashem FESA. Improving Nurses Knowledge and Practices Regarding the Care of Children with Intestinal Stomas. IOSR-JNHS. 2016;5(6).
25. Al MBe. Nurses' Knowledge About Fecal Intestinal Ostomies's Care: A Cross-Sectional Study. 2016.
26. Fabíola Santos Ardigo Lna. Knowledge of the professional about nursing care of people with ostomies and their families. Text Context Nursing, Florianópolis. 2013;22(4):1064-71.
27. Ethiopia fmoh. national cancer control plan 2016-2020. in: directorate DPAC, editor. 2015.
28. Berhe KF. Seroprevalence and risk factors of hbv, hiv and syphilis infections among pregnant women attending at Gandhi Memorial Hospital, ADDIS ABABA, ETHIOPIA. 2014.
- 29 Center pr staff survey on ostomy care 2013.
30. Osto Care-Ostomy, continence. <http://www.nibinih.gov/WOCA>. Accessed 2/16/2017
- 31 Maryam Bagheri, Payam Sharifan, Atefeh Behboudi Far, Zohre Pouresmail, and Fatemeh Kavousi. Nurses' Knowledge About Fecal Intestinal Ostomies's Care: A Cross-Sectional Study. Iran 2016
- 32 Duruk N,Ucar H. Staff nurses' knowledge and perceived responsibilities for delivering care to patients with intestinal ostomies: a crosssectional study. J Wound Ostomy Continence Nurs. 2013.

ANNEXES

Annex I. Information Sheet

I. Introduction

Research Topic: Assessment of knowledge about colostomy care and its associated factors among staff nurses in randomly selected three public hospitals in Addis Ababa, Ethiopia, 2017

Investigator: TensaeGeleta

Dear Respondent:

I am a Masters student at Addis Ababa University, College of Health Sciences, School of Allied Health sciences, Department of Nursing and Midwifery. I kindheartedly request you to participate in a study that is aimed at assessing the knowledge about colostomy care and its associated factors among staff nurses in randomly selected public hospitals in Addis Ababa.

Participation in this study is voluntary; you can also withdraw at any time from the study if you feel uncomfortable. Refusal to participate will not affect your work or care you shall seek at any of the health facilities in any way. Confidentiality will be ensured by not using your name or address on the questionnaire. There are no risks involved in participating in this study.

The study has no immediate benefits to the respondents, but will have benefits later in improving the knowledge of staff in long runs by implementation of study findings at time of training in higher institutions and thereby help to reduce colostomy related knowledge and associated factors discrepancy.

I welcome any question if you have any about the study and your participation. Should you have any questions about the research or any related matters, please contact the researcher at

+251-913065325. Email: tensae.geleta@yahoo.com

Annex II. Consent sheet

I understand the nature of the study, benefits, and my right to voluntary participation, confidentiality and withdrawal from the study without any oppression. I have had the opportunity to ask questions and answered to my satisfaction. To express my agreement I have signed below.

I hereby freely consent to take part in this study.

Signature of the participant _____

Date _____

Supervisor Name _____ signature _____

Date ____/____/____ E.C.

Name of interviewer

Date ____/____/____ E.C. signature _____

Yours Faithfully,

Annex III. INTERODACTION

Introduction

Research Topic: Assessment of Knowledge and Associated Factors Regarding Colostomy Care among Staff Nurses Working in Surgical ward ICU and Oncology Units at Selected Public Hospitals in Addis Ababa, Ethiopia, 2017.

Investigator: Tensae Geleta

Dear Respondent:

I am a Masters student at Addis Ababa University, College of Health Sciences, School of Allied Health sciences, Department of Nursing and Midwifery. I kindly request you to participate in a study that is aimed at assessing the knowledge about colostomy care and its associated factors among staff nurses in randomly selected public hospitals in Addis Ababa.

Participation in this study is voluntary; you can also withdraw at any time from the study if you feel uncomfortable. Refusal to participate will not affect your work or care you shall seek at any of the health facilities in any way. Confidentiality will be ensured by not using your name or address on the questionnaire. There are no risks involved in participating in this study.

The study has no immediate benefits to the respondents, but will have benefits later in improving the knowledge of staff in long runs by implementation of study findings at time of training in higher institutions and thereby help to reduce colostomy related knowledge and associated factors discrepancy.

I welcome any question if you have any about the study and your participation. Should you have any questions about the research or any related matters, please contact the researcher at

+251-913065325. Email: tensae.geleta@yahoo.com

Annex IV. English questionnaire

Part I: Socio-Demographic related questions

All questionnaires are completed namelessly. We would appreciate if you answer all the questions and answer as truthfully as possible. Please circle on the number you select that best answers the question. Kindly make only one selection unless otherwise instructed.

Hospital (001) _____ ward _____

Ser.No	Socio-Demographic	Response	Remark
101.	Sex	1. Male 2. Female	
102.	Age	_____ in years	
103	Clinical experience in months /year	_____	
104.	Service months/year in current ward/ department	_____	
105	Highest nursing qualification attained	1. MSc 2. BSc 3. Diploma 4. Other (specify) _____	
106	Marital status	1. Married 2. Single 3. Divorced 4. Widowed	
107	Monthly in come	_____ in ETH birr	
108	School attended	1. Private 2. Governmental	

Part II: Questions on Knowledge of Nurses Regarding colostomy Care.

Answer the following questions by saying very High, High, Low, very low by thick correct (✓) answer i.e. coded 4,3,2,1 respectively to rate the level of your Knowledge

S.No	Questions	Responses			
		Very High	High	Low	Very Low
201	About the different types of colostomy?				
202	Regarding colostomy products and their uses?				
203	On controlling gas and odor for colostomy patient?				
204	About the diets and fluid intake that is recommended to colostomy patients?				
205	In identifying the symptoms of obstruction and its control for colostomy patients?				
206	In identifying the symptoms of diarrhea and dehydration in colostomy patients?				
207	In identifying constipation symptoms and control it in colostomy patients?				
208	Regarding the change duration of the size of colostomy about 6 weeks after the surgery?				
209	On how to prevent skin sensitivity on colostomy patients?				
210	About bathing of colostomy patient?				
211	Regarding the time it takes colostomy patients to return to their previous activities?				
212	About the recommendation of travel for colostomy patients?				
213	Regarding sexual intercourse among colostomy patients?				
214	On identifying complications of colostomy?				
215	Nursing Intervention regarding complication of colostomy care?				
216	About the activity permitted and not permitted in patient with colostomy?				
217	How to perform proper bowl irrigation?				

How do you rate your knowledge

Part III: Associated factors questions

1. How long did your highest nursing qualification study take?
 - A. 3 years
 - B. 4 years
 - C. 2 years
 - D. Other specify _____
2. When you were studying for your highest nursing qualification, have you taken courses on colostomy care?
 - A. Yes
 - B. No
 - C. I don't remember
3. How many patients with colostomy have you cared for in the last 6 months?
 - A. <5patients
 - B. 5-10patients
 - C. >10 patients
 - D. NONE
4. Have you received training on colostomy care within the last six to eight months?
 - A. Yes
 - B. No
 - C. I don't remember
5. Have you referred to literatures on colostomy care within the past 6 months?
 - A. Yes
 - B. No
 - C. I don't remember
6. Have you ever attended colostomy scientific meetings?
 - A. Yes
 - B. No
 - C. I don't remember
7. Do you read professional literatures regularly?
 - A. Yes
 - B. No

Thank you for your time and honest response!!

Annex VI: Consent form (Amharic version)

አባሪ የፍቃድ ንጥል

የጥናቱ ይዘት ጥቅም እና የፍቃድ ንጥል ተሳትፎ መብቴን፣ ሚስጥራዊነት እና የሌሎችም ጥናቶችን ማቋረጥ፣ ጥያቄዎችን የመጠየቅ ጥያቄዎችን እና የፍቃድ ማግኘት እድሉን በረኝ፣ ስምምነቴ ለመግለፅ ከታች ፈርሜ አለሁ። በመቀጠል በነፃነት በዚህ ጥናት ለመሳተፍ ፍቃድ ንጥል ጥቅም አለሁ።

የተሳታፊ ፊርማ፡- _____

ቀን፡- _____

የተቆጣጣሪ ስም _____ ፊርማ _____

ቀን / _____ / _____

የቃለ መጠይቅ አቅራቢው ስም _____

ቀን _____ / _____ / ፊርማ _____

የጥንተው አክባሪ!

Annex IV: Questionnaire (Amharic Version)

አባሪ 3: መጠይቅ

ክፍል 1:- የማህበረሰብ ስብጥር የተያያዙ ጥያቄዎች

ሁሉም መጠይቆች ያለ ስም ይጠናቀቃሉ ሁሉም ጥያቄዎች በተቻለ መጠን በእውነተኛነት በትመልሱት አቸው ይደነቃል። እባክዎ ትየተሸለመልሱ በለው በመረጡት ምላሽ ላይ ያክሉ በትኩረት ንዑስ ምርጫ ብቻ ያክብቡ ሌላ መምሪያ ከሌለው።

ሆስፒታል (001) _____ ዋርድ (002) _____

ተ.ቁ	የማህበረሰብ ሁኔታ	ምላሽ	አስተያየት
1.	ጾታ	1. ወንድ 2. ሴት	
2.	እድሜ	-----አመት	
3.	የስራ ልምድ/የወር/ዓመት	-----	
4.	የስራ ዘመን/በአሁን ደብዳቤ/ክፍል	-----	
5.	በነርቲን ግክፍተኛው የት/ትደረጃ	1. ሁለተኛ ደረጃ (ማስተርስ) 2. የመጀመሪያ ደረጃ 3. ዲፕሎም 4. ሌላ (ይግለፅ)-----	
6.	የጋብቻ ሁኔታ	1. ያገባ/ች 2. ያላገባ/ች 3. ፈት 4. የሞተባት/በት 5. የተለያዩ	
7.	ብሄር	1. አሮሞ 2. አማራ 3. ትግሬ 4. ሌላ (ይግለፅ)-----	
8.	ገቢ	1. -----	
9.	የተማሩበት ት/ቤት	1. የግል 2. የመንግስት	

ክፍል 2: ስለሰው-ሰራ-ሽየሰገራ-መውጫ (ኮሎስቶሚ) እንብካቤ የነገር ሰቶ እውቀት መለኪያ ጥያቄዎች

ከዚህ በታች የተዘረዘሩትንን ጥረ ሃሳቦች በማንበብ ስለሰው-ሰራ-ሽየሰገራ-መውጫ (ኮሎስቶሚ) እንኩብካቤ ምን ያህል እውቀት ህ/ሽ እንደ ሚመጥን ለማሳየት/ ለመጠቀም፡ በጣም በከፍተኛ (4)፣ ከፍተኛ (3) ዝቅተኛ (2)፣ በጣም ዝቅተኛ (1) ለሚሉት

ተ.ቁ	አይነት	በጣም ከፍተኛ (4)	ከፍተኛ (3)	ዝቅተኛ (2)	በጣም ዝቅተኛ (1)
1.	የተለያዩ ዓይነት የሰው-ሰራ-ሽየሰገራ-ማውጫ (ኮሎስቶሚ፣ ኢ.ሊ.ኦስቶሚ፣ ሉ.ፕ.ኦስቶሚ)				
2.	የሰው-ሰራ-ሽየሰገራ-ማውጫ ምርት እና ጥቅም (ባለአንድ፣ ባለሁለት፣ ከታችኛው ያለው፣ ባለቀበቶ፣ የመከላከያ ቅጣት ያለው)				
3.	የሰው-ሰራ-ሽየሰገራ-ማውጫ የንፋስ/ፈስ እና በሽታ መቆጣጠር				
4.	ምግብና ፈሳሽ አወሳሰድ				
5.	የአንጀት መታጠፍ/መዘጋት ምልክቶች እና መቆጣጠር				
6.	የተቅማጥና የፈሳሽ ማነስ መድረቅ ምልክቶችን				
7.	ሆድ መድረቅ ምልክቶች መቆጣጠር				
8.	የሰው-ሰራ-ሽየሰገራ-መውጫ መጠን የመለወጫ ጊዜ (6 ሳምንት ከቀደህ ክምና በኋላ)				
9.	የቆዳን መቆጣትን እንዴት መከላከል				
10.	መታጠብ				
11.	ወደ ቀድሞ እንቅስቃሴ የመመለሻ ጊዜ				
12.	ከሰው-ሰራ-ሽየሰገራ-መውጫ (ኮሎስቶሚ) ጋር እንዴት መሄድ				

✓ የመልስ ምልክት ሳጥኑ ወስጥ በመጫር አመለካከት/ቺ

13.	የጾታዊግንኙነት				
14.	የኮሎሰቶሚያሚያጋጥምመወሳሰቦች				
15.	የተፈቀዱ እና የልተፈቀዱ ክንውኖች/አንቅስቃሴዎች				
16.	የአንጅት መታጠብ ማድረግ				

ክፍል 3:- የተያያዥምክንያቶችጥያቄዎች

1. ከፍተኛውየነርሲንግሙያትምህርትህ/ሽምንያህልጊዜወስደ?
ሀ.3ዓመትሊ. 4 ዓመትሐ.2ዓመትመ.ሌላ(ይገለፅ) _____
2. ለከፍተኛውየነርሲንግሙያትምህርትስትማሩስለኮሎስቶሚትምህርትወስደዋል?
ሀ. አዎሊ. አይሐ. አላስታውስም
3. ባለፉትስድስትወራትውስጥምንያህልየኮሎስቶሚህምተኛችንረድተዋል?
ሀ.5-10ሊ.10-15ሐ.15-20መ.ከ20በላይ
4. ባለፉት 6 ወራትውስጥስለኮሎስቶሚስልጠናወስደዋል?
ሀ. አዎሊ. አይሐ. አላስታውስም
5. ባለፉትስድስትወራትውስጥከኮሎስቶሚፅሁፎችንተመልክተዋል?
ሀ. አዎሊ. አይሐ. አላስታውስም
6. ስለኮሎስቶሚሳይንሳዊስብሰባዎችላይተሳትፈህታውቃለህ/ሽ?
ሀ. አዎሊ. አይሐ. አላስታውስም
7. ሙያውፅሁፎችንበዙጊዜያነባሉ?
ሀ. አዎሊ. አይሐ. አላስታውስም

ስለጊዜዎና ስለ እውነተኛ ምላሽዎ አመሰግናለሁ!!!

Declaration

Assurance of Principal Investigator

The researcher, undersigned, declare that this is my original work and has not been presented in this or any other University and all sources of materials used for this research have been fully acknowledged.

Name of student TensaeGeleta (BSc) _____

Signature _____ date _____

Name of main advisor Sr. Nadia Worede (BSc,MSc) _____

Signature _____ date _____

Name of co-advisor

Mr. BerhanuWordofa (BSc,MSc) _____

Signature _____ date _____