



## Research Article

# Barriers and Facilitators for Execution of Nursing Process among Nurses from Medical and Surgical Wards in a Public Hospital Lahore

Shahnaz Akhtar<sup>1\*</sup>, Muhammad Hussain<sup>1</sup>, Muhammad. Afzal<sup>1</sup>, Syed Amir Gilani<sup>1</sup>

<sup>1</sup>Lahore School of Nursing, The University of Lahore, Pakistan

### Abstract

The Nursing practice is currently based on logical standards establish in a course called the nursing process. The nursing process helps in conveying art and science, which has recognized to be a value-able instrument that is converting nursing practice and additionally patient care results universally. Nursing is a profession that demands a regular, high level of critical thought coupled with critical actions. To assess barriers and facilitators in execution of nursing process among nurses from surgical and medical department. A quantitative, descriptive cross-sectional study design was used to explore barriers and facilitators for execution of nursing process among nurses from medical and surgical wards at public hospital Lahore. The instrument use for the data collection was adopted questionnaire and convenient sampling technique was used. There was weak correlation between age of participant and qualification of participant ( $r=.254$  Sig=0.005), age of participant has moderate correlation with years in service as result shown  $r$  value is .695 and sig is .000, age of participant has no association with Barriers related to as sig value is .730 and  $r$  value is .031, age of participant have no association with Barriers related to administration and Barriers related to nursing process. Majority of the participants were moderately knowledgeable about nursing process and they were willing to apply the nursing process in caring for patients, But they were not utilizing it in designing the care of their patients because of the barriers they faced in effort to use the nursing process. There was moderate correlation between age of participant and years in service, but age of the participant have no association with Barriers related to resources, Barriers related to administration and Barriers related to nursing process.

**Keywords:** Barriers; Facilitators; Execution; Nursing Process.

### Introduction

The Nursing practice is currently based on logical standards establish in a course called the nursing process. Over the years, the nursing practice has been an art rather than a science. After the Crimean war, Florence Nightingale changed the appearance of nursing and nursing practice had advanced to be both a science and art (Gulanick & Myers, 2013). The nursing process helps in conveying art and

science, which has recognized to be a value-able instrument that is converting nursing practice and additionally patient care results universally. Nursing is a profession that demands a regular, high level of critical thought coupled with critical actions (Shewangizaw & Mersha, 2015). Critical-thinking in nursing is associated with nursing advancement, which limits the critical-thinking to a direct, particular systematic and problem solving method,

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<sup>1\*</sup>Corresponding author

Shahnaz Akhtar,

Lahore School of Nursing, The University of Lahore, Pakistan

Email: [shahnazakhtarasl@gmail.com](mailto:shahnazakhtarasl@gmail.com)

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Moreover Nursing Procedure is a systematic technique, which operates logical thinking, critical thinking and basic reasoning to coordinate nurses in effective care for patients. It is a problem solving method and confirmation based technique, which contains distinctive phases, and it is a goal-directed practice for caring of patients (Mahmoud & Bayoumy, 2014). Nursing Procedure (NP) is an organized critical thinking and problem solving process used to recognize, avoid and treat real or possible health issues and encourage wellbeing. Each phase of the process documented in the patient's clinical history, as they give data regarding the patient's improvement. Provide data about supervision and facility appraisal (Shewangizaw & Mersha, 2015). Ida Jean Orlando in her theory 'Deliberative Nursing Process first defined the nursing process. Nursing practice declared as a logical strategy to direct procedures and quality nursing care. Freshly, the practice has described as a regular and energetic method to convey the nursing care, working through five systematic phases: assessment, diagnosis, planning, implementation, and evaluation. It establishes the base for nursing practice (Montgomery, Doulougeri, & Panagopoulou, 2015). Execution of the nursing process in medical situations facilitates high-quality nursing care, improves client health outcomes during and after hospitalization and promotes nursing as a professional scientific discipline. Execution of the nursing process enhanced communication among nurses, providing a framework for assessing nursing interventions and enhanced customers' satisfaction with care. Failure to use the nursing process stimulates low quality health care, the ineffectiveness of the nursing care and conflicting roles (Wagoro & Rakuom, 2015). During current advanced world, nursing achievements based on logical principles. The nursing process is a deliberate context that all qualified nurses use to solve problems and Provide exceedingly standards of care across populations, use of the nursing process, which has recognized as a valued instrument that is restructuring the nursing procedure as well as patient result universally. However, experts in nursing must stay up-to-date with a good and consistent understanding of the task and should put on specialized learning in each task (Kelly, Wicker, & Gerkin, 2014). A number of factors found that hinder the effective application of nursing process. Some known problems in the practice of nursing care, involve an inadequacy of information concerning the phases associated with the nursing process, an unjustified amount of tasks allotted to nursing staff in accordance to their skills, the poor quality of professional education that is required to carry out the task. Inadequate reports on the physical checkup associated to the illness, difficulty with describing diagnosis features are among these factors (Hagos, Alemseged, Balcha, Berhe, & Aregay, 2014). In underdeveloped countries, the Factors associated with failure to the implementation of the nursing process can be categorized into negative attitudes, incompetence, and lack

of resources. In clinical settings where the nursing process is implemented, inadequate knowledge is a key barrier to its implementation. Barriers related to the execution of the nursing process in most healthcare organizations are related to nurses' observation and experience, work assets and others associated to organization (Mahmoud & Bayoumy, 2014). Along with all the barriers, there are some facilitators, which serve in the care. Quality patient care in healthcare facility settings relies on nurses' capacity to enhance a comprehensive arrangement of care. The test for many organizations is to facilitate specialized nursing staff individuals to advance their understanding of the nursing process and grow patient care arranging abilities. Implementation of the nursing process is concerned with the accessibility of the required number of qualified staff in the region according to the total number of patients admitted (Zamanzadeh, Valizadeh, Tabrizi, Behshid, & Lotfi, 2015).

#### ***Problem Statement***

Nursing Process offer quality delivery of nursing care through nursing care plans, which include assessment, planning, and application of care (Adeyemo & Olaogun, 2013). Nurses have enormous workload in Pakistan and nurse, patient ratio in Pakistan is approximately 1:50 in hospital. Therefore, nurses working in the hospitals setting in Pakistan are extremely overloaded. While the ratio recommended by the Pakistan Nursing Council (PNC) is 1:10 in general zones and 2:1 in specialized zones (Nursing Shortage in Pakistan-Human resources Management in health system, 2013). Nurses are the vital care givers in hospitals, they can altogether impact the quality of care delivered and, ultimately, treatment and patient outcomes. Many of our health organizations have the knowledge but they are not placing the nursing process to practice because of inadequate staffing and work over load. Lack of its application can reduce the quality of care and lead long stay in hospitalization. Which cause more cost of treatment? Poor quality, in turn, leads to increased morbidity and mortality rates in our healthcare institutions. The researcher will assess the barriers, which are obstructing undergraduate students from implementing nursing process.

#### ***Research Question***

- [1] What are the Barriers for Execution of Nursing Process among nurses of medical & surgical department?
- [2] What are the Facilitators for Execution of Nursing Process among nurses from surgical and medical department?

#### ***Significance of the Study***

The quality of patient care is revealed by excellent performance of nurses during their clinical placement. Current study will be a source for improving my knowledge regarding barriers and facilitators that influence the practice

of nursing process among nurses. The findings of this study are expected to address highlighted gaps and offer solutions to health institutions and educational institutions. The study will enable the nurses to evaluate their practices towards the nursing process in Medical and surgical unit. The study will address the barriers that affect the practice of nursing process in health-care institutions, the finding will helpful in minimizing the barriers and improving the facilities in clinical setup for the implementation of nursing process, which will improve quality of nursing care, reduction in mortalities and enhance the prestige of organization and professional image. The outcome of the study will be of great importance to management because quality health care is the ultimate goal of every hospital to all those who will require such services. The study will also help management provide steady supply of stationery and other equipment for effective patient care. The study will help nurse educators review the curriculum and course content of Medical and surgical nursing and also identify areas that will require review to meet up with current trends in nursing practice.

**Purpose of the Study**

The overall purpose of the study is to assess the Barriers and Facilitators for Execution of Nursing Process among nurses

from surgical and medical department of Mayo hospital Lahore.

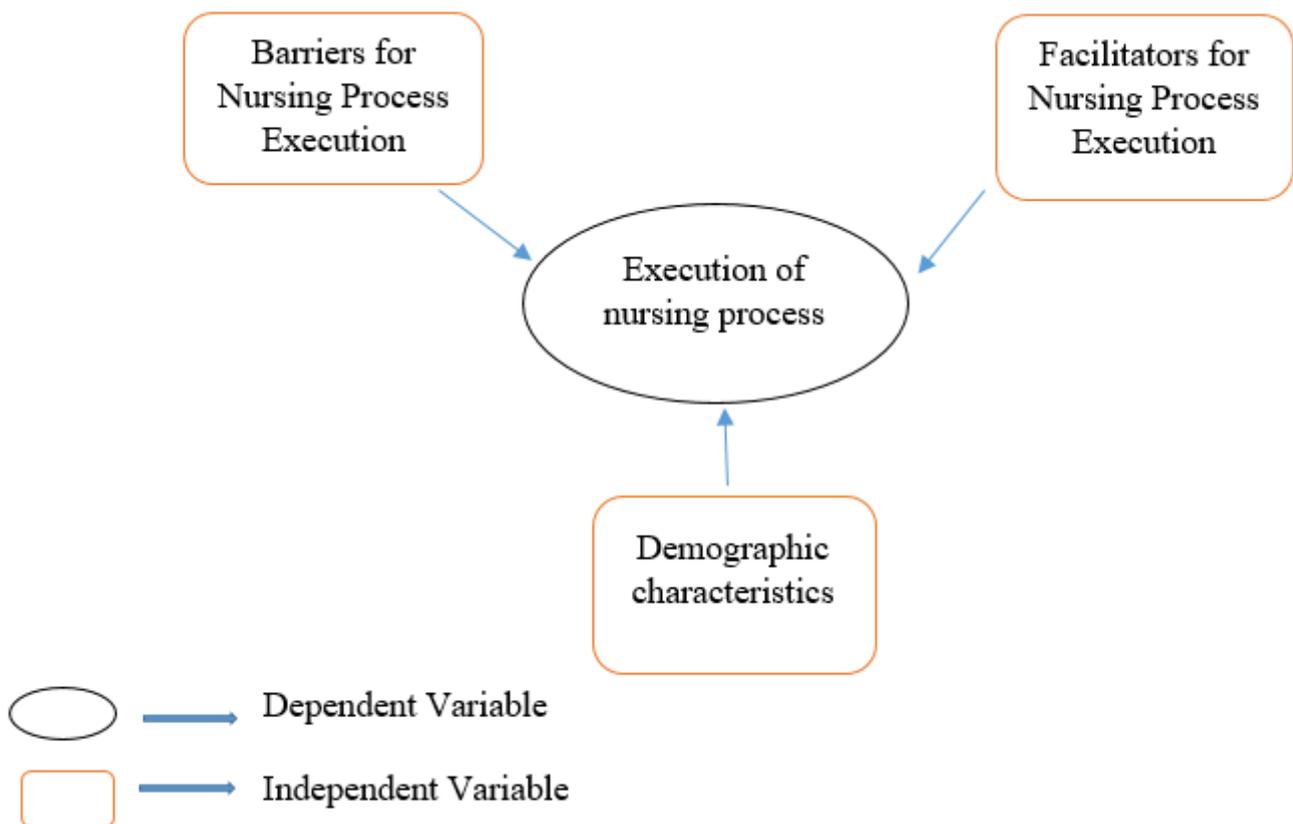
**Objectives**

To assess barriers in execution of nursing process among nurses from surgical and medical department.

To assess Facilitators to execution of nursing process among nurses from surgical and medical department.

**Conceptual Model**

Donabedian model offers a structure for inspecting health care facilities and evaluating the quality of healthcare facilities. As indicated by the model, data about the quality of care can be drawn from three classifications that are: “structure,” “process,” and “outcomes.” Structure defines the setting of situation in which care is provided, including, workforce (staff), funding, and equipment. In the current study, data about the quality of care provided can be drawn from two classifications: “Barriers of nursing process,” and “facilitators of nursing process,” Process indicates the exchanges between patients and healthcare providers during the course of the provision of healthcare. To conclude, outcomes denote to the impact of health-care on the wellbeing status of patients (Fig. 1).



**Fig. 1:** Conceptual framework (Source: Donabedian *et al.*, 1982)

## **Variables**

### *Independent variable*

Barriers in execution of nursing process. (Workload, tedious documentation)

Facilitators in execution of nursing process. (Use books, availability of equipment)

### *Dependent variables*

Implementation of Nursing Process (NP Steps and NP Practice)

## **Conceptual Definitions of Key Concepts**

### *Barriers*

A circumstance or obstacle that keeps people or things apart or prevents communication or progress (Dictionary & STREET, 1994).

### *Facilitators*

Someone or something that facilitates something; especially: someone who helps to bring about an outcome (such as learning, productivity, or communication) by providing indirect or unobtrusive assistance, guidance (Marriam-Webster, 2006).

### *Execution*

The process of putting a decision or plan into effect; execution.

The carrying out of a plan, order, or course of action (Dictionary & STREET, 1994).

## **Operational Definitions**

### *Barriers*

Barriers are basic factors obstructing the execution of nursing process involve work resources and administration related barriers among nurses from surgical and medical department.

### *Facilitators*

Role and performance of facilitators in the nursing process and in the care of the patients related to barriers and facilitator for execution of the nursing process. It involves having enough time for performing the phase and found it easy to communicate.

### *Execution*

Putting in to practice all the steps in the nursing process. Which are phases of the nursing process.

### *Nursing process*

Is an organized problem-solving method, which are practiced by nurses to recognize, avoid and treat real and possible health problem and promote well-being. This process is composed of several steps; assessment, diagnosis, planning, interventions, application, and evaluation.

## **Literature Review**

Nursing process is a universal concept, which forms the basis of nursing as profession. The use of nursing process in most hospitals is lagging behind regardless of all the effort of nursing professionals to its implementation. Nursing process is dynamic and it is used in clinical practice worldwide to deliver quality-individualized care to patients and lack of its application can affect the quality of nursing care in health institutions (Mangare, Omondi, Ayieko, Wakasiaka, & Wagoro, 2016). According to Agyeman and colleagues (2017) Nurses constitute the largest proportion of healthcare employees and deliver up to 80% of all health care facilities, Moreover Fresher nurses aged between 21 and 30 years were more likely to exercise nursing process 33 (49.3%) compared to nurses aged 31-40 years (24.1%), 41-40 years (8%) and 51- 60 years (15.4%). Freshly competent nurses with experience less than 5 years and experience 30 between 5 and 10 years were more likely to apply nursing process at 38.8% and 54.8%, respectively compared to 11-15 years (23.5%) and 16 or more years (10.8%) (Agyeman-Yeboah, Korsah, & Okrah, 2017). Lalani & Gulzar (2001) revealed that 90 % of the participants agreed that nursing process is an important part of nursing. However, only 32.3 % participants agreed that they efficiently practice the nursing process. Mostly 73.5% participants agreed that nursing process required tedious documentation. 46.7% participants did not know all the stages of nursing process (Lalani & Gulzar, 2001). Adeyemo & Olaogun (2013) defined that 109 (81.3%) participants conveyed that they had been trained, 82 (61.2%) respondents received training on the nursing process in college. Twenty-one (15.57%) nurses were trained during seminars and 20 (14.9%) respondents' received during Ministry of Health organized training. 77 (70.6%) nurses reported that training facilitates them to expertly practice nursing process compared to 32 (29.4%) who reported that training did not enable them to expertly practice nursing process (Adeyemo & Olaogun, 2013). Baraki *et al.* (2017) found that Nurses' related barriers that are work-experience of respondents' varies from 1 to 29 years. 157 (78%) of the respondents' were unhappy with job; from which sixty-six (42%) were disappointed due to an excessive patients work-load and 131 (83.4%) respondents' informed that unhappiness had affected their use of the nursing process (Baraki *et al.*, 2017). Clark. E. K (2017) observed that 86.0 % of the participants were agree to practice the nursing process. Even though 83.7 % stated that they practice the nursing process often. 64.7% participants stated that nursing process is found tough to execute as compared to 8.4% participants. Moreover 94.3 % participants stated that the practice of nursing process should not be left for the degree nurses only (Clarke, 2017). Julie, Simon *et al.* (2017) defined barriers to implementation of the nursing approach were found

insufficient among nursing staff. (62.6%), respondents' report lack of time for application of nursing process, (47.2%) were stated a barrier that is lack of theoretical and practical knowledge, lack of nursing records were found (26%) and 17% participants identify the tedious documentation as a barrier (Julie *et al.*, 2017). Moreover another study has recognized lack of capacity (facility), from administrative factors, financial position of the patient to gather required material for the nursing care. 18.2% of nurses who indicated that the institution did not provide the relevant tools for implementation of the nursing process. (Guedes, Turrini, Sousa, Baltar, & Cruz, 2012). Afolayan, Donald *et al.* (2013) defined factors that influence the implementation of the nursing approach were found that (25.6%) participants reported the barrier related to nursing process and (61.8%) participants response to have inadequate equipment that are required to execute the nursing process, (63.4%), respondents' report lack of time for application of nursing process (Afolayan *et al.*, 2013). In another study according to Julie *et al.* (2017) revealed that 70.2 % participants' answer that hospital administration needs to be enlightened on the benefits of nursing process. 61.1 % participants reported that they are not being able to follow patients because of low nurse inadequate nurse patient ratio. 32.4 % participants reported that there are administration related barriers for the execution of nursing process (Julie *et al.*, 2017). Adeyemo & Olaogun (2013) observed that 67.6% of respondents' were agreed upon numerous resources related barriers, which included insufficient staff in the unit, lack of specified nursing care document and educational budget, insufficient equipment and absence of supplies and materials that are required for the execution of nursing process (Adeyemo & Olaogun, 2013). Study shows further aspects, which facilitated utilization and execution of nursing process. 96% respondents having theoretical knowledge and practical experience; 91% participants learned and executed it during the undergraduate study, and 90% participants receiving theoretical-practical training in the hospital were recognized as the facilitator for stress-free execution of the nursing (Kelly *et al.*, 2014). Zamanzadeh *et al.* (2015) found that 78.9% participants' reported that hospital administration documented nursing process as a framework for quality nursing care delivery. One-half 50% of nurses stated that the hospital management supports application of the nursing process, 75.4% participants reported that the hospital management supplies appropriate equipment to facilitate staff in the implementation of nursing process. (Zamanzadeh *et al.*, 2015). Abebe, Abera, & Ayana (2014) reveals that ninety four (47%) participants reported that the managements of the hospitals were supportive in the implementation of the nursing process, and fifty one (25.5%) of the respondents stated that division of the resources for implementation of the nursing process was acceptable (Abebe, Abera, & Ayana, 2014). A study shows,

19.2% of the respondents' stated that there are adequate brochures in the unit regarding the nursing process execution. 22.3% respondents' stated that they have enough time for performing the phases of the nursing process. One third (33.1%) participants' stated that they were keenly applying the nursing process but (8.2%) participants' appropriately listed all the phases (steps) of nursing process (NGAO, 2015). Barra *et al.* (2014) found that Participants of the study did not have considerable awareness about execution and evaluation of nursing plan, in which 76.5% participants' did not response the question about execution of nursing care plan, while 65.5% participants' were failed to reply the question about evaluation.

## Methodology of the Study

### Site

This study was conducted at Mayo Hospital Lahore.

### Setting:

Setting for the current study was surgical and medical wards of Mayo hospital Lahore.

### Study Design:

Cross-sectional descriptive study design was used.

### Study Duration:

The study was conducted with in the duration of four months, starting from January 2018 and ends on April 2018.

### Study Population:

The study targeted population was the Nurses from surgical and medical ward of Mayo Hospital Lahore.

### Inclusion Criteria

- All nurses from surgical and medical ward mayo hospital Lahore.
- Nurses who were interested and willing to contribute in the study.

### Exclusion Criteria:

- Nurses who were absent at the time of data collection.
- Nurses who were not willing to participate in the study.
- Nurses from ICU & emergency and other departments except surgical and medical.

### Technique of Sampling:

In this study convenience strategy is used, participants who had entire requirements, who were there at the time of data collection.

### Data gathering plan:

Data was gathered by distributing the questioner having close-ended questionnaire among nurses of surgical and medical from Mayo hospital Lahore.

**Size of Sample:**

According to Solvin’s formula with the chances of error of 5% and confidence coefficient of 95% (Ellen, 2012).

The sample size was 124 participants. It is calculated by using the

If Total population 180

$N$  = population     $n$  = Sample size     $E$  = margin of error

$$n = N/1 + (N) (E)^2$$

$$n = 180/1 + (180) (0.05)^2$$

$$n = 180/1 + (180) (0.0025)$$

$$n = 180/1 + 0.45$$

$$n = 180/ 1.45$$

$$n = 124$$

**Data Analyze Plan:**

Data was analyzed by using the Statistical Package for the social science (SPSS) 21, descriptive statistics such as frequencies, means, SD- Deviation and percentages and Pearson correlation was used to determine the association between ages, years in service, qualification and barriers encounters in execution of nursing process.

**Tool of Research:**

Questions were adopted from published research article included four sections was used to collect the information. 1<sup>st</sup> section contain demographic characteristics, 2<sup>nd</sup> section consist on Previous Experiences and Practices of the nurses regarding nursing Process, 3<sup>rd</sup> section contain question regarding Barriers encountered in execution of the nursing

Process and 4<sup>th</sup> section contain questions regarding Facilitators for nursing Process execution.

**Ethical Consideration:**

The study was conducted in surgical and medical ward of Mayo hospital Lahore. After taking permission letter from institutional review board committee of the University of Lahore. The rules and regulations of the institute were not violated. A written consent was taken from the participants. Mentioning the name of the participant was prohibited. Each participant in this study was deal in a respective way. All collected information were kept confidential.

**Results**

Results analysis of different components of this research study such as the Demographic data, Previous Experiences and Practices of the Nurses Regarding Nursing Process (NP), Barriers Encountered in Execution of the Nursing Process and facilitators in execution of nursing process. The questioners were distributed in 124 participants. By using the convenient sampling technique to collect data.

**Demographic Data Analysis and Results:**

Table 1 shows that 29.8% of the participants was of age 21-25 years, whereas 44.4% participants were age 26-30 years and 25.0% were 31-35 years and .8% was >35 years. The findings of above table also show that 53.2% participants were general nursing diploma holder years: BS/MSc/ MA qualified, 5.6% of the participants’ were 18 years: MPhil/MS and 4.1% Education. Regarding teaching experience, 61.8% had experience 1-4 years, 36% were having experience 5-8 years and 2.2% had 9-12 years of experience in teaching.

**Table 1:** Demographic Information of Participants.

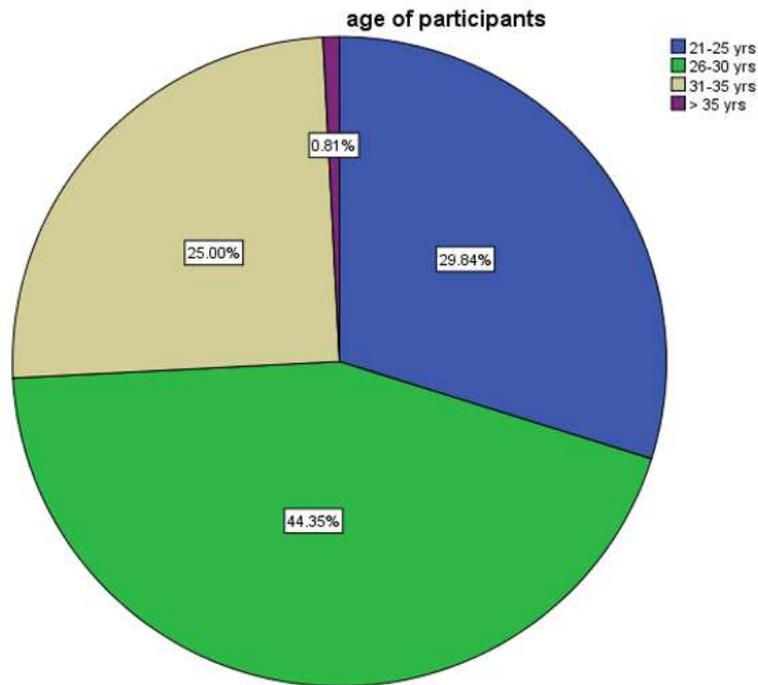
Participants	n= 124 (f)%	Mean & SD
<b>Age Group of respondents</b>	1 = 21-25yrs (37) 29.8%	1.97±.764
	1 = 26-30yrs (55) 44.4%	
	2 = 31-35yrs (31)25.0%	
	3 = > 35 yrs. (1).8%	
<b>Qualification of the respondents</b>	1 = General nursing (66) 53.2%	1.47±.501
	2 = Post RN BSN (58) 46.8%	
<b>Years of service of the respondents</b>	1 = 1-5 years (58) 46.8%	1.74±.795
	2 = 6-10 years (41)33.1%	
	3 = 11-15 years (24) 19.4%	
	4 = > 15 years (1) .8%	
<b>Duty Wards of the respondents</b>	1 = Medical (58)46.8%	1.53±.501
	2 = Surgical (66)53.2%	

**Age of Participant:**

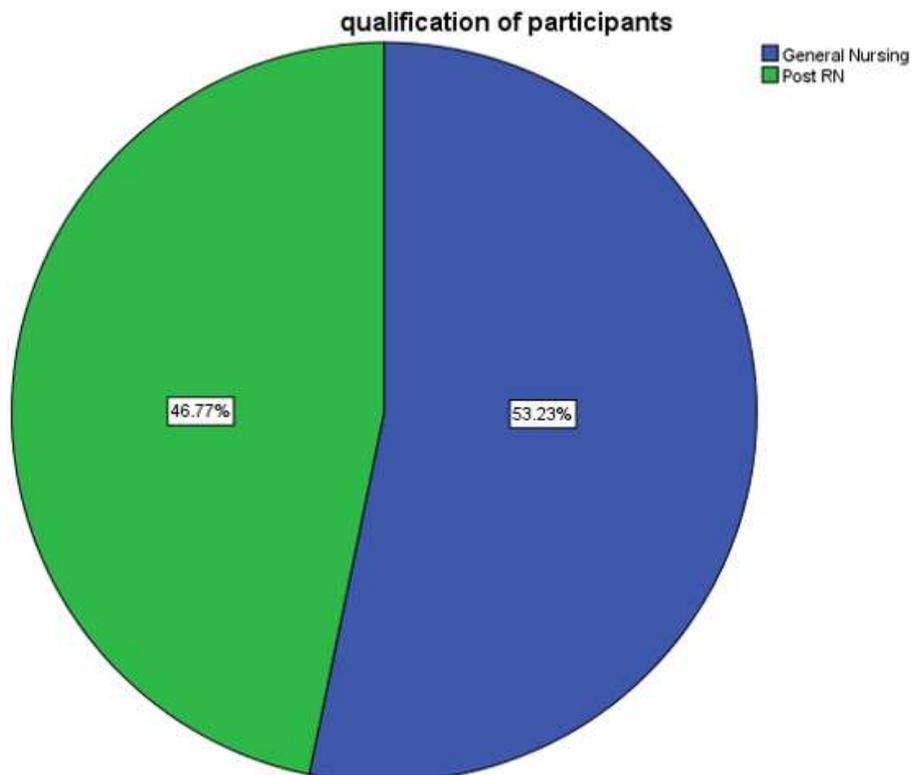
Among 124 attendees (n=37) 29.8% were between 21-25years, (n=55) 44.4% were between 26-30years, (n=31)25.0% were between 31-35years and (n=1).8% were >35years with mean  $1.97 \pm .764$  (Fig.2).

**Qualification of Participant:**

The Fig 3 shows the qualification of participants. The data in (Table 1) shows that the qualification of participants (n=66)53.2 were diploma holder (General Nursing) & (n=58) were degree holder (BS Nursing Post RN) with mean  $1.47 \pm .501$ .



**Fig. 2:** Age of Participant



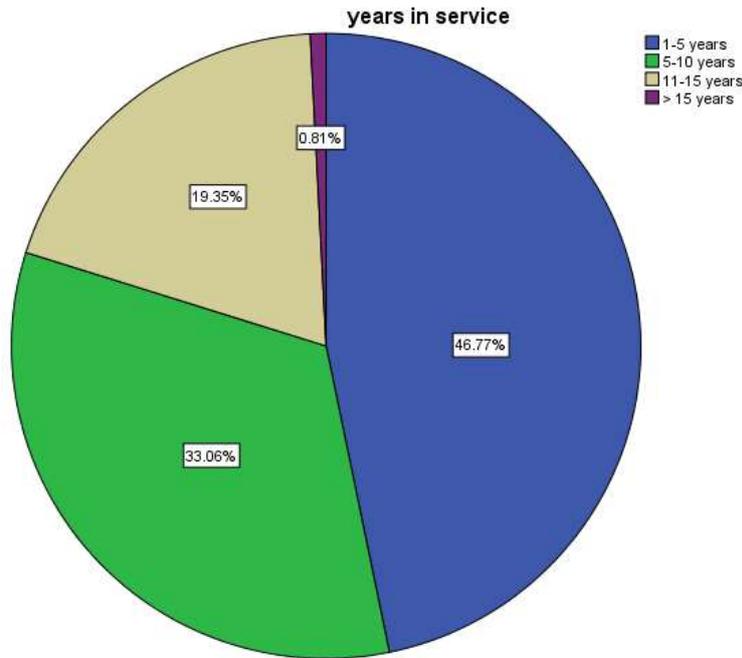
**Fig. 3:** Qualification of Participant

**Years in service of the Participants:**

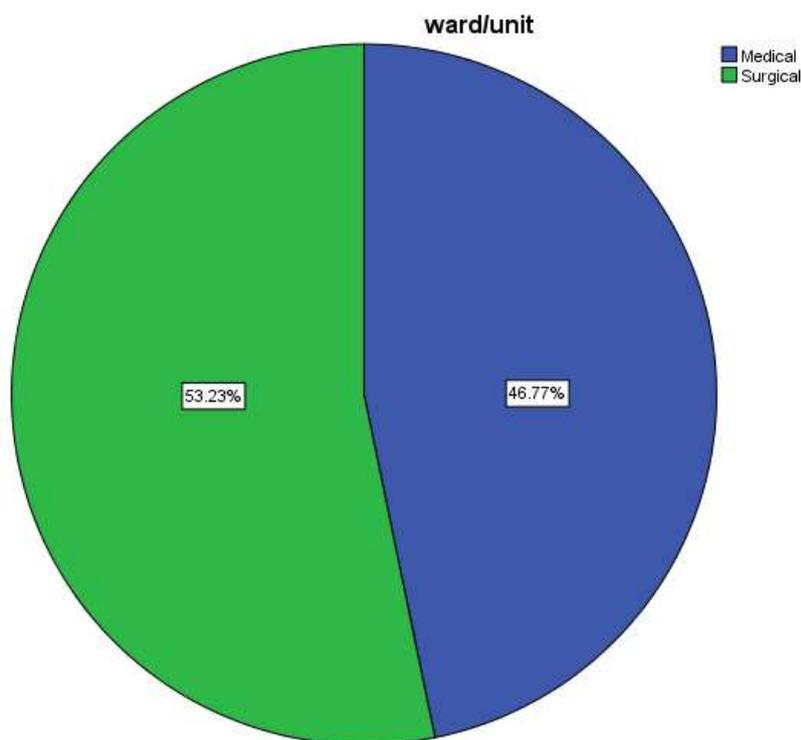
Among 124 attendees (n=58) 46.8% have 1-5years experience in service, (n=41) 33.1% have 5-10 years of service, 26-30years, (n=24)19.4% having between 11-15years in service and (n=1).8% were have >15years in service with mean 1.74±.795 (Fig. 4).

**Ward/Unit of clinical placement of Participants**

The Fig. 5 shows the clinical placement of participants. It shows that the placement of participants (n=58) 46.6 were from Medical ward and (n=66) 53.2% were from surgical units with mean 1.53±.501.



**Fig. 4:** Years in service of the Participants



**Fig. 5:** Ward/Unit of clinical placement of Participants

**Table 2:** Previous Experiences and Practices of the Nurses Regarding Nursing Process (NP)

Variable	Strongly Agree (f)%	Agree (f)%	Neutral (f)%	Disagree (f)%	Strongly Disagree (f)%	Mean & SD
<b>Nurses views about their Nursing Process knowledge</b>						
I have good knowledge in Nursing process.	(41)33.1%	(53)42.7%	(22)17.7%	(6)4.8%	(2)1.6%	1.99±.924
I got knowledge from training College.	(28)22.6%	(44)35.5%	(14)11.3%	(37)29.8%	(1)8%	2.51±1.165
I got knowledge from seminars/workshops.	(18)14.5%	(38)30.6%	(19)15.3%	(45)36.3%	(4)3.2%	2.83±1.167
I need more information and tutorials to practice Nursing process.	(38)30.6%	(58)46.8%	(15)12.1%	(11)8.9%	(2)1.6%	2.04±.966
<b>Perceived confidence in application of nursing process:</b>						
I am able to apply Nursing process correctly	(11)8.9%	(58)46.8%	(32)25.8%	(17)13.7%	(6)4.8%	2.59±.966
I understand Nursing process but found it difficult to implement	(11)8.9%	(62)50%	(17)13.7%	(31)25%	(3)2.4%	2.62±1.033
I found it confusing	(10)8.1%	(35)28.2%	(36)29.0%	(41)33.1%	(2)1.6%	2.92±1.001
<b>Acceptability and willingness to practice the nursing process by nurses:</b>						
I am willing to apply Nursing process in patients' care	(45)36.3%	(57)46%	(13)10.5%	(9)7.3%	(0)0%	1.89±.867
I will prefer to be left out of this Nursing process practice	(15)12.1%	(33)26.6%	(21)16.9%	(40)32.3%	(15)12.1%	3.06±1.251
I practice the nursing process often	(14)11.3%	(45)36.3%	(30)24.2%	(28)22.6%	(7)5.6%	2.75±1.102
I do not practice the nursing process often	(20)16.1%	(31)25%	(18)14.5%	(45)36.3%	(10)8.1%	2.95±1.261
I have never practice the nursing process	(19)15.3%	(31)25%	(12)9.7%	(31)25%	(31)25%	3.19±1.446
Application of it should be left for higher nursing degrees	(24)19.4%	(30)24.2%	(18)14.5%	(26)21%	(26)21%	3.00±1.443

Table 2 shows Nurses views about their Nursing Process knowledge. On a question, 'I have good knowledge in nursing process' (n=41) 33.1% answered in strongly agree, (n=53) 42.7% stated agree, (n=22) 17.7% were replied in Neutral, (n=6)4.8% Disagree and (n=2) 1.6% were strongly disagree with mean 1.99±.924. Another question was asked; I got knowledge from training college, the responses were as below. Among the participants, (n=28)22.6% were stated

strongly agree, (n=44)35.5% were stated agree, (n=14) 11.3% were stated Neutral, (n=37)29.8% stated Disagree and (n=1)8% were stated strongly disagree with mean 2.51±1.165. In response to another question, I got knowledge from seminars/workshops, the participants responded as below. (n=18) 14.5% mentioned strongly agree, (n=38) 30.6% stated agree, (n=19) 15.3% were replied Neutral, (n=45)36.3% stated Disagree and

(n=4)3.2% were stated strongly disagree with mean  $2.83 \pm 1.167$ . On a question, I need more information and tutorials to practice Nursing process. (n=38)30.6% participants mentioned strongly agree, (n=58)46.8% mentioned agree, (n=15)12.1% were stated Neutral, (n=11) 8.9% stated Disagree and (n=2)1.6% were mentioned strongly disagree with mean  $2.04 \pm .966$ .

Table 2 shows Nurses views about their Perceived confidence in application of nursing process. Findings reveal on asking question that “I am able to apply Nursing process correctly” Among the participants (n=11)8.9% mentioned strongly agree, (n=58)46.8% mentioned agree, (n=32)25.8% were stated Neutral, (n=17)13.7% mentioned Disagree and (n=6)4.8% were replied in strongly disagree with mean  $2.59 \pm .966$ . In response to another question “I understand Nursing process but found it difficult to implement”, the participants responded as below. (n=11)8.9% stated strongly agree, (n=62)50.0% stated agree, (n=17)13.7% were stated Neutral, (n=31)25.0% stated Disagree and (n=3)2.4% were stated strongly disagree with  $2.62 \pm 1.033$ . On asking “I found it confusing” Among the participants (n=10)8.1% mentioned strongly agree, (n=35)28.2% mentioned agree, (n=36)29.0% were mentioned Neutral, (n=41)33.1% mentioned Disagree and (n=2)1.6% were mentioned strongly disagree. With mean  $2.92 \pm 1.001$ .

Table 2 shows Nurses views about their acceptability and willingness to practice the nursing process by nurses, on a question, I am willing to apply nursing process in patients’

care. Among the participants (n=45)36.3% stated strongly agree, (n=57)46.0% were stated Agree, (n=13)10.5% stated Neutral and (n=9)7.3% were stated disagree with mean  $1.89 \pm .867$ . In response to another question, “I will prefer to be left out of this Nursing process practice” the participants responded as below. (n=15)12.1% stated strongly agree, (n=33)26.6% stated agree, (n=21)16.9% were Neutral, (n=40)32.3% stated Disagree and (n=15)12.1% were strongly disagree. Findings of Table 4.2 reveal that on asking “I practice the nursing process often” among the participants (n=14)11.3% strongly agree, (n=45)36.3% agree, (n=30)24.2% were Neutral, (n=28)22.6% Disagree and (n=7)5.6% were strongly disagree. In response to another question, “I do not practice the nursing process often” the participants responded as below. (n=20)16.1% were strongly agree, (n=31)25.0% were agree, (n=18)14.5% were Neutral, (n=45)36.3% stated disagree and (n=10)8.1% were strongly disagree with mean  $2.95 \pm 1.261$ .

Table 2 shows I do not practice the nursing process often, (n=19)15.3% strongly agree, (n=31) 25.0% agree, (n=12)9.7% were Neutral, (n=31)25.0% Disagree and (n=31)25.0% were strongly disagree with mean  $3.19 \pm 1.446$  in (Fig. 6).

Application of it should be left for higher nursing degrees often, (n=24)19.4% strongly agree, (n=30)24.2% agree, (n=18)14.5% were Neutral, (n=26)21.0% Disagree and (n=26)21.0% were strongly disagree with mean  $3.00 \pm 1.443$  in (Fig. 7).

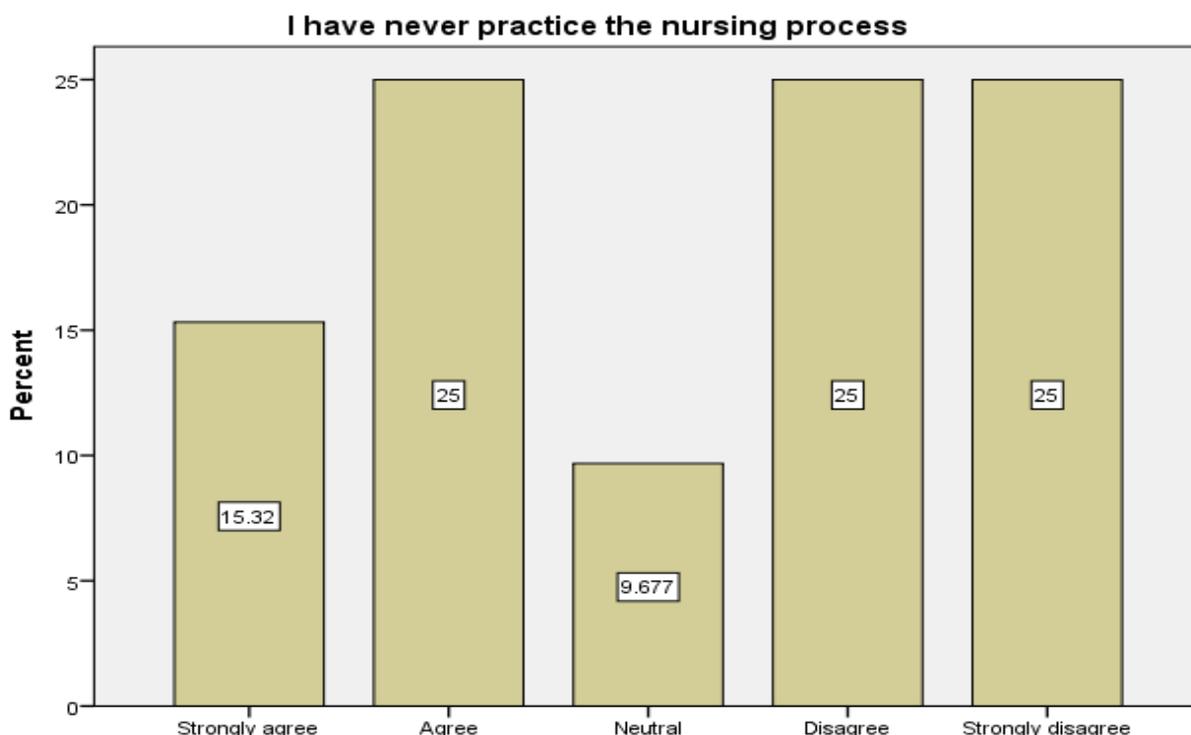


Fig. 6: I have never practice the nursing process

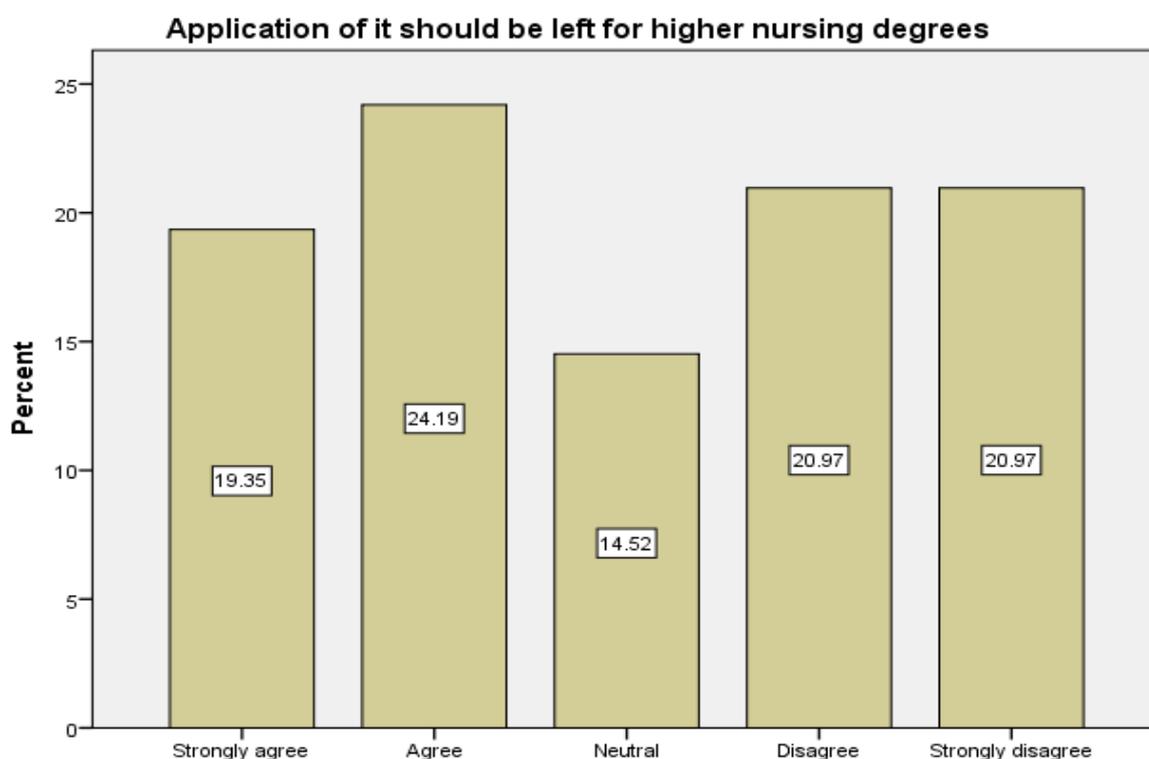


Fig. 7: Application of it should be left for higher nursing degrees

Table 3: Barriers Encountered in Execution of the Nursing Process.

Variable	Strongly Agree (f)%	Agree (f)%	Neutral (f)%	Disagree (f)%	Strongly Disagree (f)%	Mean & SD
Hospital management needs to be enlightened on its benefits	(50)40.3%	(58)46.8%	(11)8.9%	(5)4.0%	(0)0%	1.77±.777
Insufficient equipment for the implementation of nursing process	(32)25.8%	(54)43.5%	(19)15.3%	(15)12.1%	(4)3.2%	2.23±1.068
The nursing staff strength to patient ratio is inadequate to fully practice the nursing process(Workload)	(47)37.9%	(48)38.7%	(18)14.5%	(4)3.2%	(7)5.6%	2.00±1.082
A nurse cannot see any purpose for writing the care plan	(8)6.5%	(30)24.2%	(27)21.8%	(44)35.5%	(15)12.1%	3.23±1.139
Not being able to follow patients	(10)8.1%	(32)25.8%	(29)23.4%	(40)32.3%	(13)10.5%	3.11±1.149
Staff had no experience in nursing process	(6)4.8%	(26)21%	(26)21%	(49)39.5%	(17)13.7%	3.36±1.107
Nursing process is time consuming	(27)21.8%	(48)38.7%	(22)17.7%	(13)10.5%	(14)11.3%	2.51±1.259
Nursing process requires tedious (too long) documentation	(25)20.2%	(50)40.3%	(29)23.4%	(15)12.1%	(5)4.0%	2.40±1.065
Barriers related to resources	(23)18.5%	(72)58.1%	(17)13.7%	(8)6.5%	(4)3.2%	2.18±.920
Barriers related to administration	(26)21.0%	(66)53.2%	(23)18.5%	(7)5.6%	(2)1.6%	2.14±.868
Barriers related to nursing process	(26)21.0%	(63)50.8%	(21)16.9%	(8)6.5%	(6)4.8%	2.23±1.013

Table 3 shows Barriers Encountered in Execution of the Nursing Process. On asking a question, Hospital management needs to be enlightened on its benefits, among the respondents' (n=50)40.3% stated strongly agree, (n=58)46.8% stated agree, (n=11)8.9% were Neutral, (n=5)4.0% were disagree. The participants were asked a question, Insufficient equipment for the implementation of nursing process, where (n=32)25.8% said strongly agree, (n=54)43.5% said agree, (n=19)15.3% were stated Neutral, (n=15)12.1% Disagree and (n=4)3.2% were stated strongly disagree. On asking a question, "The nursing staff strength to patient ratio is inadequate to fully practice the nursing process (Workload)" among the participants (n=47)37.9% were mentioned strongly agree, (n=48)38.7% mentioned agree, (n=18)14.5% were stated Neutral, (n=4)3.2% stated disagree and (n=7)5.6% were strongly disagree. The participants was asked a question, A nurse cannot see any purpose for writing the care plan, where (n=8)6.5% participants were strongly agree, (n=30) 24.2% were agree, (n=27)21.8% were stated Neutral, (n=44)35.5% Disagree and (n=15)12.1% were stated strongly disagree. On asking a question, Not being able to follow patients, among the respondents (n=10)8.1% were strongly agree, (n=32)25.8% stated agree, (n=29)23.4% were mentioned Neutral, (n=40)32.3% Disagree and (n=13)10.5% were strongly disagree. The participants were asked a question that Staff had no experience in nursing process, (n=6)4.8%

participants stated strongly agree, (n=26)21.0% were agree, (n=26)21.0% were stated Neutral, (n=49)39.5% were disagree and (n=17)13.7% were stated strongly disagree. On asking a question, Nursing process is time consuming, (n=27)21.8% respondents strongly agree, (n=48)38.7% agree, (n=22)17.7% were Neutral, (n=13)10.5% Disagree and (n=14)11.3% were strongly disagree. Upon asking a question, Nursing process requires tedious (too long) documentation, (n=25)20.2% strongly agree, (n=50)40.3% respondents were agree, (n=29)23.4% were stated Neutral, (n=15)12.1% stated Disagree and (n=5)4.0% were strongly disagree.

Data shown in Table 3 regarding Barriers related to resources, suggests (n=23)18.5% strongly agree, (n=72)58.1% agree, (n=17)13.7% were Neutral, (n=8)6.5% Disagree and (n=4)3.2% were strongly disagree with mean  $2.18 \pm .920$  in (Fig. 8)

Barriers related to administration, (n=26)21.0% strongly agree, (n=66)53.2% agree, (n=23)18.5% were Neutral, (n=7)5.6% Disagree and (n=2)1.6% were strongly disagree with mean  $2.14 \pm .868$  (Fig. 9).

(Table 4.3) Barriers related to administration nursing process, (n=26)21.0% strongly agree, (n=63)50.8% agree, (n=21)16.9% were Neutral, (n=8)6.5% Disagree and (n=6)4.8% were strongly disagree with mean  $2.23 \pm 1.013$  in (Fig. 10).

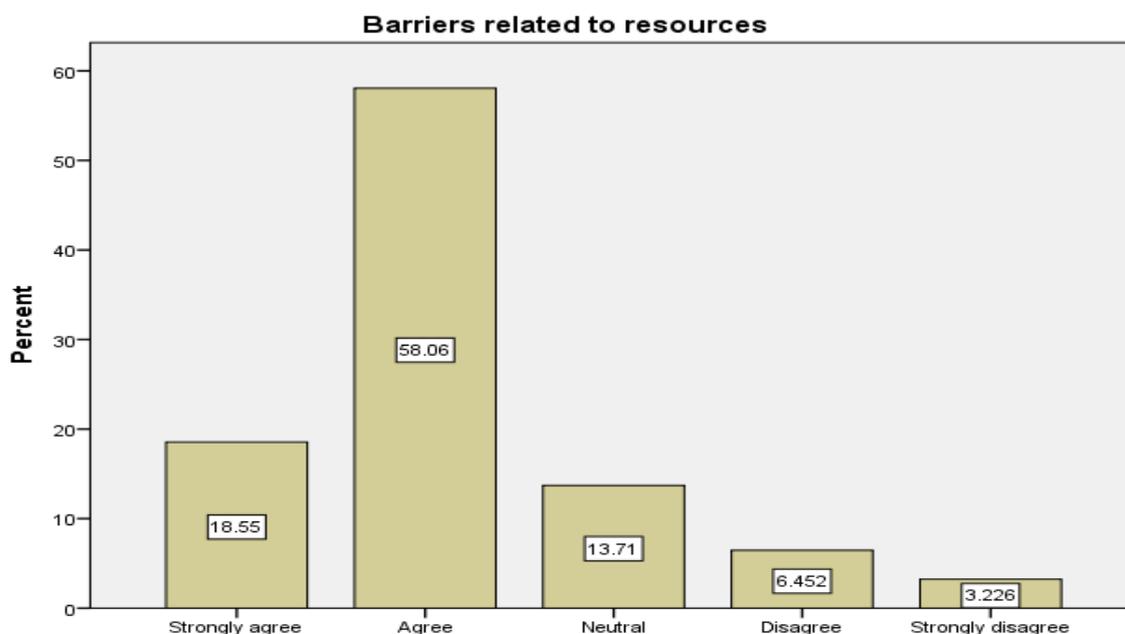


Fig. 8: Barriers related to resources

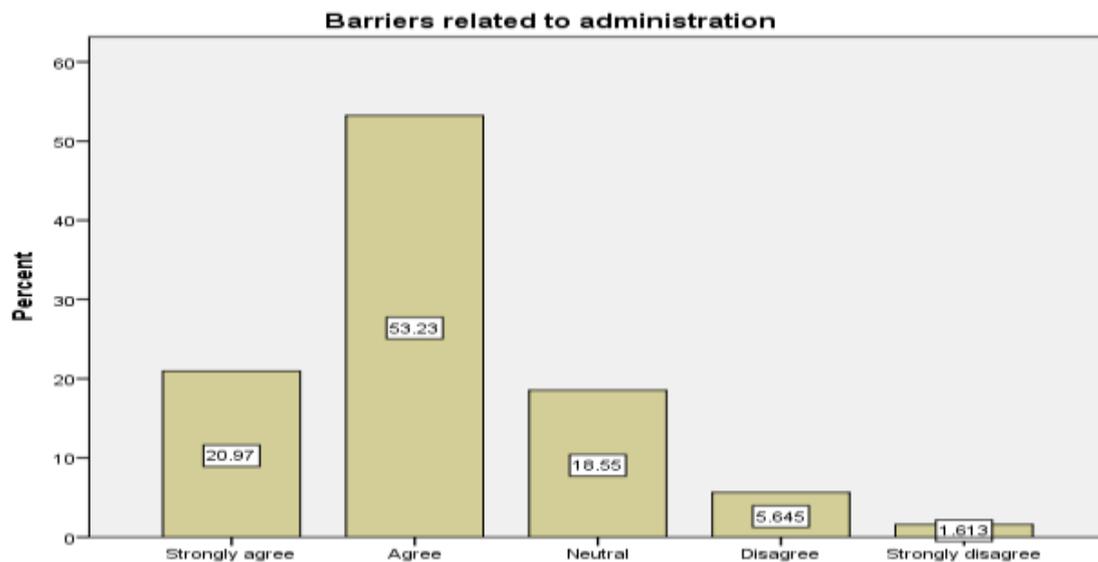


Fig. 9: Barriers related to administration

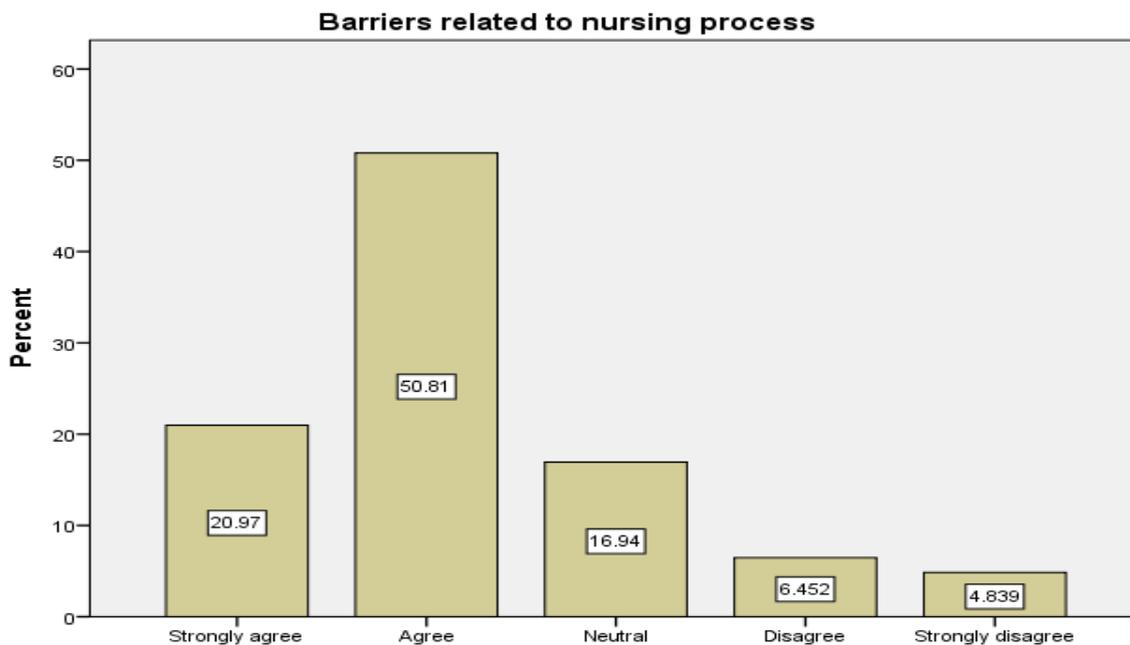


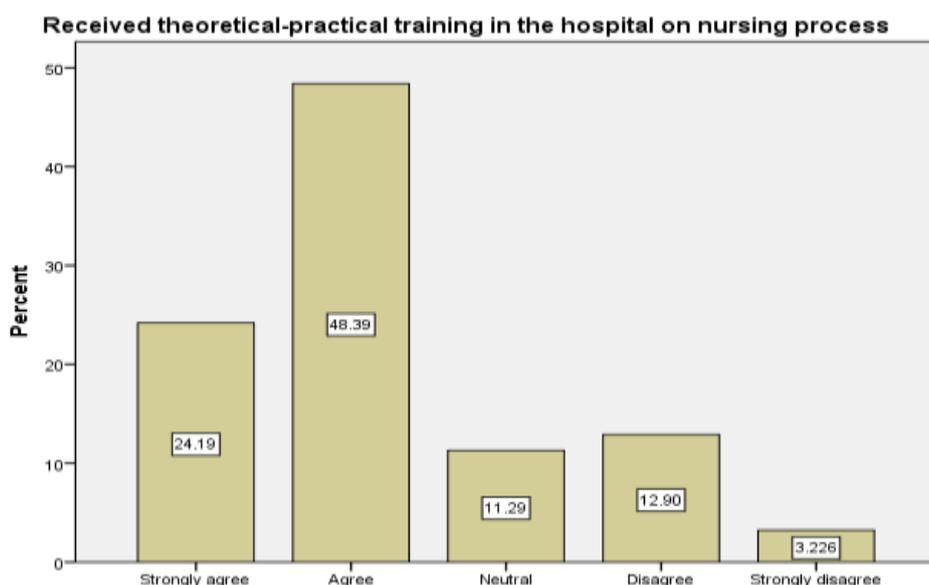
Fig. 10: Barriers related to nursing process

Table 4 shows facilitators for execution of Nursing Process. On asking a question, Had adequate brochures in the unit, where (n=9)7.3% respondents were stated strongly agree, (n=38)30.6% stated agree, (n=27)21.8% were mentioned Neutral, (n=43)34.7% disagree and (n=7)5.6% were mentioned strongly disagree. Another question was asked, had enough time for performing the phase, among the participants (n=12)9.7% were mentioned strongly agree, (n=36)39.0% were stated agree, (n=20)16.6% were Neutral, (n=47)37.9% disagree and (n=9)7.3% were stated strongly disagree. The participants were asked a question, Used books as reference sources, among the respondents'

(n=15)12.1% were stated strongly agree, (n=54)43.5% were agree, (n=21)16.9% were mentioned Neutral, (n=33)26.6% disagree and (n=1)0.8% were strongly disagree. Another question asked, Found it easy to communicate, (n=12)9.7% strongly agree, (n=49)39.5% agree, (n=25)20.2% were Neutral, (n=15)12.1% Disagree and (n=7)5.6% were strongly disagree. Another question asked to the respondents, Learned and executed it during undergraduate study, among the participants (n=25)20.2% stated strongly agree, (n=57)46.0% stated agree, (n=27)21.8% were stated Neutral, (n=10)8.1% were mentioned disagree and (n=5)4.0% were stated strongly disagree.

**Table 4:** Facilitators for Execution of Nursing Process.

Variable	Strongly Agree (f)%	Agree (f)%	Neutral (f)%	Disagree (f)%	Strongly Disagree (f)%	Mean & SD
Had adequate brochures in the unit	(9)7.3%	(38)30.6%	(27)21.8%	(43)34.7%	(7)5.6%	3.01±1.086
Had enough time for performing the phase	(12)9.7%	(36)29.0%	(20)16.6%	(47)37.9%	(9)7.3%	3.04±1.165
Used books as reference sources	(15)12.1%	(54)43.5%	(21)16.9%	(33)26.6%	(1).8%	2.60±1.035
Found it easy to communicate	(12)9.7%	(49)39.5%	(25)20.2%	(23)18.5%	(15)12.1%	2.84±1.199
Learned and executed it during undergraduate study	(25)20.2%	(57)46.0%	(27)21.8%	(10)8.1%	(5)4.0%	2.30±1.012
Received theoretical-practical training in the hospital	(30)24.2%	(60)48.4%	(14)11.3%	(16)12.9%	(4)3.2%	2.23±1.058
Had the theoretical knowledge and practical experience	(26)21.0%	(61)49.2%	(28)22.6%	(8)6.5%	(1).8%	2.17±.862



**Fig. 11:** Received theoretical-practical training in the hospital

Data shown in the Table 4 regarding Received theoretical-practical training in the hospital shows (n=20) 24.2% strongly agree, (n=60)48.4% agree, (n=14)11.3% were Neutral, (n=16)12.9% Disagree and (n=4)3.2% were strongly disagree with mean 2.23±1.058 in (Fig. 11)

Pearson Correlation of different variable (Table 5) shows age of participant, qualification of participant, years in service, Barriers related to resources, Barriers related to administration, Barriers related to nursing process. There was weak correlation between age of participant and qualification of participant ( $r=.254$  Sig=0.005), age of participant has moderate correlation with years in service as result shown r value is .695 and sig is .000. Age of participant has no association with Barriers related to as sig value is .730 and r value is .031, age of participant have no association with Barriers related to administration and Barriers related to nursing process. Qualification of

participant have no association with years in service, Barriers related to resources, Barriers related to administration, Barriers related to nursing process as sig and r values are respectively (.994,-.001 ),(.470,.065),(.686,-.036) and (.433,.015). Years in service have no association with Barriers related to resources, Barriers related to administration and Barriers related to nursing process as result shown r and sig values are respectively (-.37,.684),(.005,960) and (.015,.869). Barriers related to resources have moderate correlation with Barriers related to administration as r value is .489 and sig is .000, Barriers related to resources have moderate correlation with Barriers related to nursing process as r value is .522 and sig is .000. Barriers related to administration have moderate correlation with Barriers related to nursing process r value is .490 and sig value is .000.

**Table 5:** Correlation

		Age of participant	Qualification of participant	Years in service	Barriers related to resources	Barriers related to administration	Barriers related to nursing process
1.age of participant	Pearson Correlation Sig. (2-tailed)	1					
2.qualification of participant	Pearson Correlation Sig. (2-tailed)	.252** .005	1				
3.years in service	Pearson Correlation Sig. (2-tailed)	.695** .000	-.001 .994	1			
4.Barriers related to resources	Pearson Correlation Sig. (2-tailed)	.031 .730	.065 .470	-.037 .684	1		
5.Barriers related to administration	Pearson Correlation Sig. (2-tailed)	.043 .632	-.036 .687	.005 .960	.489** .000	1	
6.Barriers related to nursing process	Pearson Correlation Sig. (2-tailed)	.041 .649	.071 .433	.015 .869	.522** .000	.490** .000	1

\*\* Correlation is significant at the 0.01 level (2-tailed).

Correlation is significant at the 0.05 level (2-tailed).

## Discussion

Nursing process is an important process in nursing care, in this study it has been assessed how much professional applied it. The result of current study displays that majority of participant was agreed that they have good knowledge in nursing process, (n=41) 33.1% strongly agree, (n=53) 42.7% agree, with mean  $1.99 \pm .924$ . in another earlier study same likely result had been observed, that participant answered that they have good knowledge in Nursing Process, 55(37.2%) were strongly agree and 85(57.4%) were agree (Mahmoud & Bayoumy, 2014).

The same result were in line with the previous studies of (Nabaale, 2010) who noted that however there were several classifications of nurses with regard to age, experience, rank and educational upbringings, they had a mostly very good knowledge of the nursing process. He added that all respondents view the nursing process as a vital instrument for rendering widespread and excellent nursing care to patients (Nabaale, 2010) in another study it is revealed that majority of respondents (n=95) 81% participants received training in nursing process and (43%) participants were capable to implement the nursing process (Mamseri, 2012).

The same likely results in an earlier study (Wagoro & Rakuom, 2015) (Silva et al., 2011) conveyed that majority of nurses have lack of knowledge about nursing process and

possess no ability to write care plan at their own. Majority (n=44) 35.5% of the participant in this study were also agreed that they got knowledge from training College but (n=37) 29.8% of the respondents' were Disagree, but this outcome is differ in contrast with a prior study (Afolayan et al., 2013) outcome which were opposed to current study where 8% of the participants were disagree but 92% participants were agreed. But in current study (n=38)30.6% were agree that they got knowledge from seminars/workshops but (n=45) 36.3% participant were Disagree.

Majority of nurses indicated that they had good knowledge of the nursing process from attended college as well as from seminars and workshops, which were carried by in their workplaces(Mahmoud & Bayoumy, 2014)

This result was not going in line with studies (Joel Adeleke Afolayan et al, 2013) Workshops and seminars it was shown that this have not significantly improved knowledge of the nursing process among the nurses. Only 29 respondents (38.7 percent) gained knowledge of the nursing process through workshops and seminars. 46 subjects did not agree that workshops and seminars have provided the needed understanding of the nursing process as they believed the workshops are rarely organized or even lack the quality to enhance any positive change about the nursing

process. Twenty-one (15.57%) nurses were trained during seminars and 20 (14.9%) during Ministry of Health organized.

According to our investigation shows that (n=38) 30.6% participant strongly agree, (n=58) 46.8% agree, (n=15)12.1% were Neutral, (n=11) 8.9% Disagree and (n=2)1.6% were strongly disagree that they need more information and tutorials to practice Nursing process. Afolayan *et al.* (2013) reported that 61 respondents (81.3 percent) agreed, they need more information and tutorials to apply the nursing process in patients' care. Also, 61 (81.3 percent) respondents disagreed that they should be left out of the nursing process practice; while 71 (94.7 percent) disagreed to the view that the application of the nursing process should be left for those with degree in Nursing.

A study shows that (n=45) 36.3% participant were strongly agree, and (n=57) 46.0% were Agree, (n=13)10.5% Neutral and (n=9)7.3% were disagree with mean  $1.89 \pm .867$  that they willing to apply Nursing process in patients' care, in line with the observations by Mahmoud & Bayoumy (2014). Majority of nurses had commonly high agreements on the different advantages of using the nursing process. Among advantages which had the highest agreement were: nursing process is a mean of unifying nursing practice; it provides an opportunity for ongoing learning. It allows review and evaluation of nursing interventions; continuity of care given to the patient/client is improved and that it helps nurses to appreciate the reasons for nursing actions (96%, 95%, 95%, 95% and 93% respectively). Mahmoud *et al.* (2014) reported that 56 subjects (74.7%) insisted that nurses can sustain the tedious documentations that go with the utilization of the nursing process. However, in line with the observations by (Mahmoud & Bayoumy, 2014; Shahzadi *et al.*).

In this current study displays that there was moderate correlation between age of participant and years in service, but age of the participant have no association with Barriers related to resources, Barriers related to administration and Barriers related to nursing process. Barriers related to resources have moderate correlation with Barriers related to administration and Barriers related to nursing process. There was moderate correlation between Barriers related to administration and Barriers related to nursing process.

Correlation between age, years in service and barriers faced by nurses for implementation of nursing process exposed an extremely significant correlation between age and years of practice but neither age nor experience related to any of the supposed barriers for implementation of nursing process. Moreover, exceedingly significant correlations shown amongst the supposed barriers. Barriers related to nurses' perception and experience was greatly correlated with barriers related to nursing process ( $r=.743$ ,  $p<0.01$ ); barriers of resources ( $r=.782$ ,  $p<0.01$ ); and barriers from

administration ( $r=.793$ ,  $p<0.01$ ). Barriers of resources has too revealed very significant relation with barriers related to administration ( $r=.766$ ,  $p<0.01$ ). (Mahmoud & Bayoumy, 2014).

## Conclusion

Majority of the participants were moderately knowledgeable about nursing process and they were willing to apply the nursing process in caring for patients, But they were not utilizing it in designing the care of their patients because of the barriers they faced in effort to use the nursing process. There was moderate correlation between age of participant and years in service, but age of the participant have no association with Barriers related to resources, Barriers related to administration and Barriers related to nursing process. Barriers related to resources have moderate correlation with Barriers related to administration and Barriers related to nursing process. There was moderate correlation between Barriers related to administration and Barriers related to nursing process.

## Limitation and Recommendations

This study was limited to a small population and limited setting where few individuals were studied. The sample cannot be a true representative for large population like province and country therefore cannot be generalized. Such studies need to be conducted on a larger scale.

Convenient sampling was applied in data collection process where as the probability sampling method can enhance the induction of different strata of the participants.

Hospital management should plan and provide the needed material and sufficient staff to promote the use of nursing process.

## References

- Abebe N, Abera H, Ayana M (2014) The implementation of nursing process and associated factors among nurses working in Debremarkos and Finoteselam Hospitals, Northwest Ethiopia, 2013. *J Nurs Care* **2014**: 4-7.
- Adeyemo FO, Olaogun AA. (2013) Factors affecting the use of the nursing process in health institutions in Ogbomoso Town, Oyo State. *Int J Med Pharmacol Sci* **1**: 191-198.
- Afolayan JA, Donald B, Baldwin DM, Onasoga O, Babafemi A (2013) Evaluation of the utilization of nursing process and patient outcome in psychiatric nursing: case study of psychiatric Hospital Rumuigbo, Port Harcourt. *Adv Appl Sci Res* **4**(5): 34-43.
- Agyeman-Yeboah J, Korsah KA, Okrah J. (2017) Factors that influence the clinical utilization of the nursing process at a hospital in Accra. *Ghana. BMC nursing* **16**(1): 30.
- Baraki Z, Girmay F, Kidanu K, Gerensea H, Gezehgne D, Teklay H (2017) A cross sectional study on nursing process implementation and associated factors among nurses working in selected hospitals of Central and Northwest zones, Tigray Region, Ethiopia. *BMC nursing* **16**(1): 54.

- Barra DC, Dal Sasso GT, Baccin CR (2014) Warning systems in a computerized nursing process for Intensive Care Units. *Revista da Escola de Enfermagem da USP* **48**(1): 125-132.
- Clarke EK (2017) Application of nursing process in pediatric care and the factors associated with its implementation at Korle-bu teaching hospital and Princess Marie Louis hospital in Accra (Doctoral dissertation, University of Cape Coast).
- Dictionary OE & Street W (1994). Oxford English dictionary.
- Donabedian A, Wheeler JR, Wyszewianski L (1982) Quality, cost, and health: an integrative model. *Medical care* **1**: 975-992.
- Guedes ED, Turrini RN, Sousa RM, Baltar VT, Cruz DD (2012) Attitudes of nursing staff related to the nursing process. *Revista da Escola de Enfermagem da USP* **46**(SPE): 130-137.
- Gulanick M, Myers JL (2013) Nursing Care Plans-E-Book: Nursing Diagnosis and Intervention. *Elsevier Health Sciences* 5.
- Hagos F, Alemseged F, Balcha F, Berhe S, Aregay A (2014) Application of nursing process and its affecting factors among nurses working in mekelle zone hospitals, Northern Ethiopia. *Nursing research and practice*. 2014.
- Julie NK, Simon IK, Irène KU, Charles MM, Mahuridi A, Narcisse MK, Françoise MK. (2017) Barriers to the Implementation of the Nursing Approach in Public Hospitals in Lubumbashi in the Democratic Republic of Congo: A Cross-Sectional Descriptive Study. *Open Access Library Journal* **4**(07): 1.
- Kelly LA, Wicker TL, Gerkin RD (2014) The relationship of training and education to leadership practices in frontline nurse leaders. *Journal of Nursing Administration* **44**(3): 158-163.
- Lalani NS, Gulzar AZ. (2001) Nurses' role in patients' discharge planning at the Aga Khan University Hospital, Pakistan. *Journal for Nurses in Professional Development* **17**(6): 314-319.
- Mahmoud MH, Bayoumy HM. (2014) Barriers and Facilitators for Execution of Nursing Process From Nurses' perspective. *International Journal of Advanced Research* **2**(2): 300-315.
- Mamseri RA (2012) The nursing process as a means of improving patient care (Doctoral dissertation).
- Mangare NL, Omondi AL, Ayieko OA, Wakasiaka S, Wagoro MC (2016) Implementation of the Nursing Process in Naivasha District Hospital, Kenya. *American Journal of Nursing* **5**(4): 152-157.
- Marriam-webster (2006)
- Montgomery A, Doulougeri K, Panagopoulou E (2015) Implementing action research in hospital settings: a systematic review. *Journal of health organization and management*. **29**(6): 729-749.
- Nabaale SD (2010) Perception of nurses on the implementation of the nursing process in the Brong-Ahafo Region.
- NGAO MD (2015) Assessing Barriers to Implementation of Nursing Process among Nurses Working at Machakos Level 5 Hospital, Doctoral dissertation, University of Nairobi.
- Nursing shortage in pakistan- human resources management in health system (2013) *journal of pioneering medical sciences*.
- Shahzadi C, Kousar R, Hussain M, Waqas A, Gilani SA, Safdar M. The Assessment of Gap between Theory and Training Classes in Nursing Education System: A Case of University of Lahore, Pakistan.
- Shewangizaw Z, Mersha A. (2015) Determinants towards implementation of nursing process. *Am J Nurs* **4**(3): 45-49.
- Silva EG, Oliveira VC, Neves GB, Guimarães TM (2011) Nurses' knowledge about Nursing Care Systematization: from theory to practice. *Revista da Escola de Enfermagem da USP* **45**(6):1380-1386.
- Wagoro MC, Rakuom CP (2015) Mainstreaming Kenya-Nursing Process in clinical settings: the case of Kenya. *International Journal of Africa Nursing Sciences* **3**: 31-39.
- Zamanzadeh V, Valizadeh L, Tabrizi FJ, Behshid M, Lotfi M (2015) Challenges associated with the implementation of the nursing process: A systematic review. *Iranian journal of nursing and midwifery research* **20**(4): 411.