

## Barriers to the Application of the Nursing Process in the Regional Hospital Bamenda-Cameroon

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### Abstract

*The nursing process remains one of the unique pillars that confer nursing autonomy as a profession. However, implementation of the nursing process in the Regional Hospital Bamenda remains a challenge. This study set to assess barriers to the application of the nursing process at the Regional Hospital Bamenda-Cameroon. The specific objectives were to determine the demographic factors of nurses; identify the institutional factors and to find out the socio-cultural factors that hinder the implementation of the nursing process. A cross sectional study was carried out using a convenient sample of 65 nursing staff. Data were collected using self-administered questionnaires with Pearson reliability coefficient of 0.87. The data were analysed using SPSS. The study revealed that 68% of the participants did not know the steps of the nursing process. Advancing age and longevity of nurses; rejection and lack of support of nursing process, non- recognition of those who make an effort, inadequate monitoring; inadequate resources; and nursing peers, family, religion and culture hindered implementation of the nursing process. The nursing process was viewed by all participants as time-consuming and others, 92% as tedious. Implementation of the nursing process was found to be negatively affected by demographic institutional and sociocultural factors. Within the perspectives of this study, the nursing care plan needs to be vulgarized as a professional tool in the hospital, client satisfaction with nursing services evaluated and an observational study carried out using patients' records to improve on the objectivity of this study.*

**Keywords:** nursing process, nursing care plan, barriers, implementation, nursing.

### Introduction

#### Background

The nursing process is a global concept that constitutes part of the foundation of nursing as a profession. According to Rivars *et al.*, (2012) the nursing process is a scientific method for delivery of holistic and quality nursing care; and its effective implementation is critical to improving quality nursing care. The introduction of the nursing process as a systematic and scientific approach to individualized patient care started in the early 1950s in the developed countries. It is through the nursing care plan that the nursing process is implemented. Carlson (2010), asserts that the nursing process is used to identify, prevent and treat actual or potential health problems; as well as to promote wellness. It is a widely accepted scientific method to guide nursing procedures and quality of nursing care (Pokorski *et al.*, 2009).

Despite nurses' knowledge on the nursing process, some factors including lack of instruments, high patient volume, limited nurses and no motivation may limit the ability of nurses to implement it in their daily practice. According to Mahmoud & Bayoung (2014), its implementation in many hospitals especially in low and middle-income countries remains a challenge. Similarly, Momoh & Chuku (2010), observed that implementation of the nursing process in some healthcare settings was lagging behind despite the efforts of nursing professionals to enhance its application.

#### Need for the Study

Most nursing interventions at the Regional Hospital Bamenda were observed to be carried out in a non-prioritised manner; client outcomes were hardly mentioned, making quality assurance requirements difficult as evaluation of nursing interventions was not easy; critical thinking and problem-solving skills of nursing students were

not sharpened. Nursing personnel mostly followed the medical approach to care and consequently were considered as medico sanitary, instead of nursing personnel. This was a threat to nursing as a profession and thus the need to vulgarise implementation of the nursing process in the setting was realised. This study was therefore conceived to assess barriers to the implementation of the nursing process in the Regional Hospital Bamenda-Cameroon. The specific objectives were;

- To determine the demographic factors of nurses that hinder the implementation of the nursing process.
- To identify the institutional factors that hinder the implementation of the nursing process.
- To find out the socio-cultural factors that hinder the implementation of the nursing process.

## Literature Review

Nursing care has evolved over the years from the era of disease model to the present-day scientific and holistic approach to patient's care. In the past, patients were treated and cared for, based on their illness with little or no consideration of the psychological and social aspects that often accompany physical illness and disabilities. Present-day nursing, however, considers the patient holistically with due regards to the bio-psychosocial interactions and dynamism in disease production and symptom presentation (ANA, 2009). Nursing is now practised based on sound scientific principles embedded in a process called the nursing process. According to the American Nurses Association (2009), the nursing process is a deliberate framework that all professional nurses use to solve problems and provide high-quality care across populations and settings. Nursing is both an art and a science, and the application of the nursing process is the combination of the two, which has proven to be a valuable tool that is revolutionizing nursing practice and patient outcomes globally. Therefore, practitioners of nursing must keep abreast with good scientific knowledge in every task to be done.

The use of the nursing care plan as a tool to implement the nursing process has been recognized and accepted as an essential framework to enhance the quality of care rendered to patients (Hagos *et al.*, 2014; Akpan-

Iduk *et al.*, 2017). Also, it serves as a building block for other models and safe practice (Alfan-Lefevre, 2016). The application of the nursing process clinically facilitates high-quality nursing care, improves client health outcomes and promotes nursing as a professional and scientific discipline (Hagos *et al.*, 2014). Yet, establishing the nursing process within clinical settings in Cameroon remains a challenge resulting in low quality of health care services (Department of Nursing, 2009).

Despite all the challenges facing the application of the nursing process in Cameroon and globally, the nursing process has major benefits to patients and the nursing profession in countries where it has been satisfactorily implemented. According to Barbara (2009), the nursing process offers a basic framework that guides the nurse in the provision of systematic and organized quality health care in clinical practice.

The nursing process is a systematic, scientific and written process, designed to help nurses act as caregivers in order to solve the numerous nursing-related problems of clients. The process is organized in a series of steps designed to provide excellent care. In International Literature by Alfan- Levre, (2016) and Berman (2012), the nursing process is described as comprising five steps namely: assessment diagnosis, planning (outcome identification, interventions), implementation and Evaluation, retained by the acronym ADPIE. In Cameroon, these steps are revised to include documentation as the last and ongoing step. This was in response to the recent updates made by NANDA-I in 2017 after observing in several countries that documentation on the nursing process was a problem. The nursing process serves as a scientific method for implementing the nursing practice, an approach to arrange the nursing documentation, a method to organize the nursing profession, a system of problem-solving based on human responses and even a nursing philosophy. It is systematic, as it is focused on achieving goals in an efficient step by step manner. Every step of the nursing process should be documented in the patient's clinical record as they provide information on patient's progress, information on management and service assessment; and justification of action as to tie to the saying that every action not documented is not performed (Saranto and Kinnunen, 2011). The nursing process also

enhances effective communication among caregivers which facilitates continuity of care (Afolayan, 2013). The nursing process is a technique that guides the sequencing of clinical reasoning and improves the quality of nursing services. It integrates, organizes, and ensures the continuity of information, enabling nursing staff to evaluate the quality of nursing services and to tailor their output following client goals. (Dal Sasso, et al., 2013). Consequently, this underpins the need for effective application of the nursing process in patient care (Afoi, 2015). The nursing process has been applied as a problem – solving approach with the use of a nursing care plan and further as the foundation for professional practice in everyday nursing (Yildirim and Ozkahraman, 2011). The implementation of the nursing process is essential to care in professional nursing practice (ANA, 2009). Stringent implementation of the nursing process enhances quality care and triggers the development of evidence-based concepts and scientific knowledge (Pokorski, 2009). The nursing process also provides nurse practitioners with a scientific method for patient care. In another study, Granero & Molina (2012) concluded that nurses mostly perceived the relationship between the nursing process and their practical work, whose application would grant meaning and relevance to their professional knowledge and raise the nursing profession to the same level as the other healthcare professions. Application of the nursing process improves communication amongst nurses, provides a system for evaluating nursing interventions and improved clients' satisfaction with care. Furthermore, Afolayan et al., (2013) stated that the nursing process contributes to professionalization, promotion of clients' satisfaction and documentation which forms global standards upon which nursing care is audited. Despite knowledge on the nursing process, certain factors appear to limit the ability of nurses to implement it in their daily practice, including lack of time, high patient volume and high patient turnover.

The scientific background of the professional involved influences the implementation of the nursing process, since knowledge and individualised care are needed. As such, differences were observed among the steps of the nursing process, in assessment procedure as well as the implementation of the nursing prescription without recording the evaluation of the expected

results (Bellido *et al.*, 2012). Quality patient care in health care delivery settings depends on the nurse's ability to develop a comprehensive plan of care. The challenge of many institutions is to help professional nursing staff members refine their understanding of the nursing process and develop patient care planning skills (ANA, 2009). There is higher agreement on how the nursing process makes progress in the profession and research; and to ease the management of patients' ill conditions (Pokorski *et al.*, 2009; Urguhart *et al.*, 2015). Application of the nursing process standardizes nursing practice and makes nurses more visible and recognized in health care institutions (Converston *et al.*, 2014; Ledesma-Dalgado and Mendes, 2018). Previous study by Potter and Perry, (2009) indicated that care plans diminished both patients' individualities and nurses' ability to think independently about the patient and highlights the collaborative management of both patients and nurses. Quality of nursing care is rated low in clinical settings where care plans are not in existence and higher where there are existing nursing care plans (PBF report, 2017). The reasons for non-implementation of the nursing process in resource-constraint nations like Cameroon can be categorized into negative attitudes, incompetence and lack of resources (Mahmoud and Bayoumy, 2014). In clinical setting where nursing practice is implemented, inadequate knowledge and incompetence are cited as barriers to its implementation (Alfan-Levre, 2016; Akbari and Shamsi; 2011). Barriers related to the nursing process application in most health care institutions are related to nurses' perception and experience of work; resources and others related to administration (Manal and Hala, 2010). According to Toogi *et al.*, (2010) application barriers of the nursing process were perceived as the most challenging, from the point of view of majority of nurses. Further studies show that, the nursing process face many criticisms among many nurses who perceived it as too much time consuming it involves a series of stages of writing down copies of notes by hand to a great deal of documentations of which nurses feel they had no time for. Bellido *et al.*, (2012) further explained that most of the nurses reported lack of sufficient time for implementing the nursing process as a key barrier, not forgetting lack of resources. Lack of resources as a barrier was supported by Manseri; (2012) and Mahmoud & Bayoumy

(2014) who noted the lack of sufficient resources and time on the part of the nurses as the main barrier to the application of the nursing process. From a study by Potter and Perry (2009), lack of adequate time, poor nurse – patient ratio, high patient turns over and lack of equipment; and supplies were highlighted as hindrance to the application of the nursing process.

### **Knowledge, Experience and Perception Factors**

According to Fissehe *et al.*, (2014), poor knowledge on the nursing process is a major gap among nurses, which acts as one of the barriers to the nursing process application. In his study, nurses' attitude toward the nursing process was not a major barrier in the application of the nursing process. Lack of knowledge to perform the nursing process is the main reason causing nursing professionals to avoid implementing the nursing process on their day to day routine care (Takashashi *et al.*, 2018). Correct education on the application of the nursing process help in developing nursing science and increasing nurses' participation in promoting the quality of care given to the patients (Hasson and Arntz, 2009). According to Querroz *et al.*, (2012) lack of awareness about the importance of the nursing process steps, lack of training of nurses concerned and lack of time to perform the nursing process serves as key barriers in its implementation at clinical setup.

### **Demographic Factors**

Demographic characteristics of nurses like age, years of work experience and level of education also have significant impact on the application of the nursing process. Nurse educational status has a direct statistically significant relationship with the knowledge of nurses on the application of the nursing process (Manal and Hala, 2014). Lack of previous experience by nurses with regard to the nursing process can also lead to resistance in its implementation as nurses may think that the nursing process application is a very complex procedure, demands a lot of time and therefore, it is not feasible in daily practice (Hagos *et al.*, 2014).

### **Cultural Factors**

Patterson, (2011) says that culture is viewed broadly to include the set of beliefs various

groups, and that differences in culture refers to the variations among individuals based on a common ideology and valued set of beliefs, norms, customs and understandings seen in culture. The main focus of culture comprises artefacts and the values attached to them. Nurses have within them a background of their private cultural heritage alongside the cultural and philosophical basis of their education. Thus, nurses should be aware that the nurse-client relationship involves an interplay of three sets of culture; that of the nurse, that of the client and that of the clinical setting/area of practice. According to ANA (2009), the provision of culture sensitive care can significantly improve access to health services.

### **Institutional factors affecting the application of the nursing process**

For the nursing process to be effectively implemented, there must be collaboration of hospital administration with the implementing nurses, for the process involves issues of finances, equipment, implementing tools and personnel. Insufficient resources, poor education, understaffing/heavy workload, poor training and lack of motivation negatively affect the implementation of the nursing process. (Akbari and Shami, 2011). Poor equipment, staff shortage, no training of nursing staff and unattractive service conditions can as well lead to non-implementation of the nursing process. Poor nursing care in any institution arises as a result of barriers to the application of the nursing care plan. It is therefore important for the hospitals as well as nurses to seek means to upgrade the knowledge of the nursing process and for the nurses to improve their knowledge on the implementation. Various governments should provide the required inputs such as materials, qualified nurses and also support nursing professionals towards implementation of the nursing process. (Manal and Hala, 2014).

### **Gaps in Literature Review**

The literature concentrates on the factors affecting the implementation/application of the nursing process basing on their prior college knowledge and experience. Most of the studies on the nursing process have been done outside Cameroon, so, there is little literature on application of the nursing process in the Cameroonian context. Most of the studies

reviewed in the literature have emphasized more on institutional factors that influence the application of the nursing process. Demographic and sociocultural factors had no depth research literature. The study will determine whether demographic factors such as age, sex as well as sociocultural factors such as peers, family, religion and beliefs of the participant have a role to play in the application of the nursing process at the Regional Hospital Bamenda

## **Methods and Materials**

### **Study Design**

A descriptive cross-sectional study was carried to assess barriers to the implementation of the nursing process in the Regional Hospital Bamenda. The Regional Hospital Bamenda is the main reference health unit in the Northwest region of Cameroon. The hospital serves an estimated population of 2 180 309 inhabitants (2017 health census estimate). It has a capacity of 400 beds with a staff strength of about 440 workers. The study was conducted in six selected units/wards; male medical ward, female medical ward, male surgical ward, female surgical ward, casualty/emergency unit and in the paediatric ward which reflect the overall application of the nursing process in the hospital.

### **Study Population**

The study population comprised practising nurses in the hospital.

### **Sampling Method**

Respondents were recruited from six selected wards and units using convenient sampling method. A total of 72 questionnaires were administered and 65 returned. The study was carried out from February to March 2019. All the nurses who were present in the units and who consented to the study were recruited. Data collection was programmed to culminate with the general staff meeting of the hospital. Some nursing students were recruited and trained as research assistants. The questionnaires were administered to the potential respondents the same day and time to minimise bias and have a tangible sample for satisfactory response and a true reflection of the situation in the hospital. Completed questionnaires were returned to the investigator and assistants on the same day.

### **Data collection instrument**

Questionnaires were used to collect data from the respondents. The questionnaire was constructed by the investigator and comprised both open and closed ended questions grouped into three main sections; demographic, training and institutional and socio-cultural factors. The reliability was estimated using the test-retest method in order to obtain the reliability coefficient. This is because two clusters of the questionnaire contained dichotomously scored items. A pilot study involving ten (10) nurses from District Hospital Tubah which is outside the study area was carried out by the researcher. After two weeks the questionnaire was administered to the same group of nurses. The responses registered on the first occasion and those after two weeks were correlated using the Pearson Product Moment correlation formula which gave a correlation coefficient of 0.87. With the calculated value of the reliability coefficient, the research instrument was found to be stable, consistent and suitable for use in the field.

### **Ethical Consideration**

Administrative authorization was issued by the Northwest Regional Delegate for Public Health. Permission was obtained initially from the Director of the Regional Hospital Bamenda then from each of the unit heads concerned. Consent of the participants was sought by describing in detail, both verbally and written the purpose of the study. Participants' confidentiality was also assured.

### **Data management**

Upon submission each questionnaire was checked for completeness. The data were then entered into Microsoft excel then imported into SPSS for analysis. The data were processed and results rated in percentages, frequencies and presented using tables and figures.

### **Results**

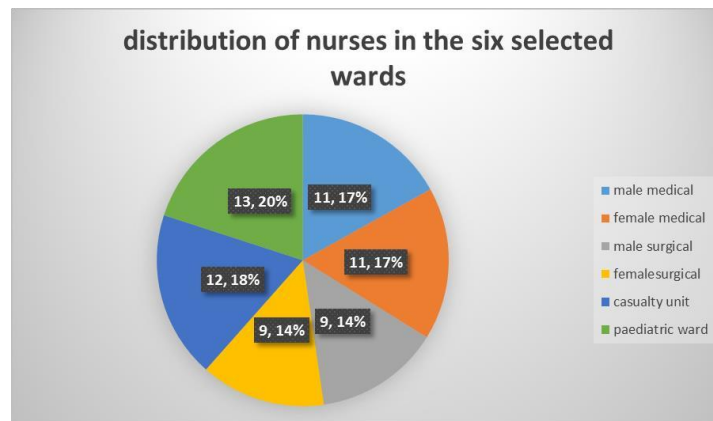
From Table 1, 64.6% of the participants were aged between 21-30years. Females accounted for about 58.5 % of the total participants. About 69.2% Of the participants were single.

The academic qualification of the participants indicated that 36.9 % had SRN Diploma/HND in nursing, 36.9 % were holders of BScN and 26.2% holders of nursing assistance diploma. On clinical experience, 73.8% of the respondents had less

than five years of clinical experience, 10.7% between 11-15years of experience and 4.8% had between 5- 10 years of experience, 10.7% above 15years of experience.

**Table 1.** demographic data

Parameter	Frequency		Percentage
Sex	Male	27	41.5
	Female	38	58.5
	<b>Total</b>	<b>65</b>	<b>100</b>
Age	21-30	42	64.6
	31-40	20	30.8
	41-50	03	4.6
	<b>Total</b>	<b>65</b>	<b>100</b>
Marital status	Single	45	69.2
	Married	20	30.8
	<b>Total</b>	<b>65</b>	<b>100</b>
Academic qualification	nursing Assistant diploma	17	26.2
	SRN Dip/HND	24	36.9
	BScN	24	36.9
	MScN/PhD	00	00
	<b>TOTAL</b>	<b>65</b>	<b>100</b>
Working experience	<5yrs	48	73.8
	5-10yrs	07	10.7
	11-15yrs	07	10.7
	16-20yrs	03	4.8
	>20yrs	00	00
	<b>Total</b>	<b>65</b>	<b>100</b>



**Figure 1.** distribution of respondents according to nursing unit

From Figure 1, distribution of respondents according to nursing unit, about 33.8% of the respondents were from the medical wards, 20% from the paediatric ward, 27.7% from the surgical wards and 18.5% from the emergency unit.

Concerning knowledge on the nursing process, 50.8% rated their understanding of the nursing process as being good, 26.2 % rated average, 13.8 % rated very good and 9.2 % rated the knowledge of the nursing process as poor.

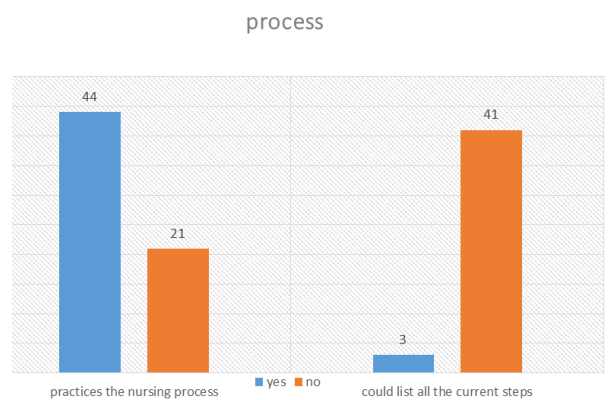
Among the participants, 78.5 % indicated having been trained on the nursing process and 21.5 % reported no training on the nursing process. A total of 76.5% reported having been trained in training schools and 23.5% in-service training; 88.2% of those being trained reported that, training enabled them to effectively apply the nursing process compared to 11.8% who reported that, training did not enable them to effectively apply the nursing process (Table 2).

**Table 2.** Place of training on the nursing process among the respondents

Parameter	Frequency		Percentage
	Yes	No	
Have you been trained on the nursing process?	Yes	51	78.5
	No	14	21.5
	<b>Total</b>	<b>65</b>	<b>100</b>
Place of training	Nursing school	39	76.5
	In-service	12	23.5
	Seminars	00	00
	MOP organizations	00	00
	<b>Total</b>	<b>51</b>	<b>100</b>
Training enables the completeness and competency of application of the nursing process	Yes	45	88.2
	No	06	11.8
	<b>Total</b>	<b>51</b>	<b>100</b>

On application of the nursing process, 68% of participants affirmed but 93% of those who affirmed could not list the steps of the nursing process.

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**Figure 2.** Bar charts illustrating the application of the nursing process

From Figure 2, the application of the nursing process was assessed by asking for evidence of preparation and implementation of the nursing care plan for patients in the last one week prior to the administration of the questionnaire. About 67.8 % of the participants reported actively applying the nursing process, 7 % who reported the active application of the nursing process were actually updated with the current steps proposed by NANDA-I, called the ADPIE + D.

On institutional support towards implementation of the nursing process, the

institution registered a 100% each for recognizing the nursing process as a framework for care and as part of the annual performance appraisal objectives; 74% each for supporting the application of the nursing process and monitoring the implementation. But only 69% was scored for recognition of staff who apply the nursing process, among whom barely 45% were given incentives for the practice. Moreover, only 40% of the participants acknowledged the timely supply of relevant materials for the implementation.

Socially, eighty-six percent of the participants reported that their peers did not inspire them to implement the nursing process.

From Table 3, younger nurses between the ages 21-30 were more likely to apply the nursing process, about 64.7%; whereas 35.6% above the age of 30 were still trying to upgrade and integrate themselves to the current practice of the nursing care plan. A strong relationship was noted between age of respondents and application

of nursing process ( $X^2 = 56.77, p = 0.000$ ) with a greater proportion of those who implemented the nursing process being younger nurses aged between 21-30 years. It also revealed existence of a strong association between working experience and implementation of the nursing process ( $X^2 = 48.23, p = 0.000$ ) with all the respondents who implemented the nursing process having a working experience of less than five years.

**Table 3.** Association between demographic factors and application of nursing process

Demographic factors		Implementation of Nursing Process		X <sup>2</sup>	p-value
		Not implemented	Implemented		
Age	21-30	0(0.0%)	42(100%)	56.77	0.000
	31-40	18(90%)	2(10%)		
	41-50	3(100%)	0(0.0%)		
Working Experience	<5	4(8.3%)	44(91.7%)	48.23	0.000
	5-10	7(100%)	0(0.0%)		
	11-15	10(100%)	0(0.0%)		

The relationship between institutional factors, socio-cultural factors and the implementation of the nursing process was determined using spearman-ranked correlation which yielded  $\rho$  statistics (Tables 4 & 5).

There was a significant relationship between application of nursing process and recognition of the nursing process by hospital administration and most respondents who opined that administration recognized nursing process as a framework of care actually implemented the nursing care plan as opposed to those who refuted this assertion. Concerning administrative support

or monitoring of the application of nursing process, they respectively had a significant relationship with the implementation of the nursing process with majority of the respondents who applied the nursing process being those who concurred with administrative support and monitoring of nursing process by the hospital administration. It also shows that there was a significant relationship between relevant tools supplied for implementation of nursing process and application of care plan. Finally, a significant relationship existed between staff recognition and implementation of the nursing care plan.

**Table 4.** Association of institutional factors and the application of the nursing process

Institutional factors		implementation of Nursing process		$\rho$	p-value
		Not Implement	Implement		
Hospital administration recognizes the nursing process as a Framework for care	Yes	6(12%)	44(88%)	0.793	0.000
	No	15(100%)	0(0.0%)		
Hospital administration supports the application of the nursing process	Yes	11(22.9%)	37(77.1%)	0.337	0.000
	No	10(58.8%)	7(41.2%)		
Management monitors the application of the nursing process	Yes	11(22.9%)	37(77.1%)	0.337	0.000
	No	10(58.8%)	7(41.2%)		
Institution supplies relevant tools required for the implementation of the nursing process	Yes	1(3.8%)	25(96.2%)	0.497	0.000
	No	20(51.3%)	19(48.7%)		
Management recognizes staff for applying the nursing process	Yes	5(11.1%)	40(88.9%)	0.680	0.000
	No	16(80.0%)	4(20%)		



Table 5 shows that a strong negative significant relationship existed between socio-cultural factors and the implementation of the nursing care plan. This means that most respondents who opined that socio-cultural factors influenced the implementation of the

nursing process did not apply the nursing care plan in the treatment of patients. As such peers, family, religion and culture interferes with the nursing process and the implementation of the nursing care plan.

**Table 5.** Association of sociocultural factors with the application of the nursing process

Socio-cultural factors		Application of Nursing Process		$\rho$	p-value
		Not Implement	Implement		
Nursing peers influence the application of the nursing process	Yes	2(22.2%)	7(77.8%)	-0.729	0.000
	No	0(0.0%)	36(100%)		
	Not sure	19(95.0%)	1(5%)		
Family influences the application of the nursing process	Yes	9(64.3%)	5(35.7%)	-0.163	0.000
	No	4(14.8%)	23(85.2%)		
	Not sure	8(33.3%)	16(66.7%)		
Religion influences the application of the nursing process	Yes	9(64.3%)	5(35.7%)	-0.358	0.003
	No	12(23.5%)	39(76.5%)		
Culture influences the application of the nursing process	Yes	8(72.7%)	3(27.3%)	-0.390	0.002
	No	13(24.1%)	41(75.9%)		

On the perceptions of participants on the nursing process (Table 6), 81.5 % participants strongly agreed that they liked the concept while 18.5 % agreed that they liked the nursing process. About 61.5 % strongly agreed and 38.5 % agreed

that identification of patients' priorities was easy with the nursing process; 60 % agreed that the nursing process enabled them to provide quality nursing care to their patients

**Table 6.** Nurses perception of the nursing process (n=65)

Parameter	Strongly Agree	Agree	Neutral	Disagree
Like the concept of the nursing process	81.5%	18.5%	0%	0%
Identification of patient's priority is easy with the nursing process	61.5	38.5	0	0
The nursing process works well in clinical practice	70.8	29.2	0	0
The nursing process enables nurses to provide patient centred care	32.3	60	7.7	0
Nursing process can be implemented for every patient	38.5	61.5	0	0
The nursing process is time consuming	12.2	64.6	23.2	0
The nursing process is tedious	26.6	53.8	12.3	7.7

## Discussion

The findings showed a strong association between the application of the nursing process with the nurses' age and experience. The younger nurses were more likely to apply the nursing process compared to the elderly nurses. Recently qualified nurses with experience less than 5 years and experience between 5 and 10 years were more likely to implement the nursing care plan in

patient's care compared to nurses with more years of experience. The finding could be attributed to a positive shift of attitude towards the nursing process in the current society of nursing. This is in agreement with the findings of Manal & Hala (2014) who noted that demographic characteristics of nurses like age and years of work experience had a significant impact on the application of the nursing process. Although academic qualification has been found

to have a direct statistically significant relationship with the knowledge of nurses on the nursing process and how to implement the use of a nursing care plan in other studies made by Manal & Hala (2014), the results of this study indicated that academic qualification was not significantly associated with the application of the nursing process.

It was also noted that nurses who reported to have been trained on the nursing process were more likely to apply the nursing process compared to those who had not been trained. Non-implementation of the nursing care plan was attributed to knowledge gap on the nursing process, increased work load, lack of current updates on the nursing process, inconsistency in facilitative supervision and low motivation among the nurses. According to Delgado & Mendes, (2018) what is taught in schools could be different from what is actually done in the hospitals or clinics, creating some challenges in regard to the nursing process. In rating the understanding of the nursing process, over half of the nurses rated their understanding as very good and good. However, the study results revealed no significant association between the understanding of the nursing process and its implementation. The statistical insignificance of the finding could be as a result of inconsistency in the nursing process practice, negative attitude, poor staffing ratio and lack of relevant resources to implement the nursing process. The findings vary with several studies. A study by Florence and Adenike, (2017) reported that the more nurses are knowledgeable, the more they are likely to use the nursing process. Another study conducted in Maryland, USA by Reppeto and souza, (2015) indicated that knowledge is one of the several factors that determines application of the nursing process. The result of this study also differs with a study in Ethiopia by Hagos, *et al.*, (2015) which found that knowledge is one of the most determinant factors for the application of the nursing process.

Among the institutional factors examined, supply of relevant tools required for application of the nursing process was significantly associated with the implementation of the nursing care plan. This agrees with the findings of Abebe, Abera and Ayana, (2014) in northern Ethiopia which showed that nurses who reported availability of necessary equipment for patient care were three times more likely to implement

the nursing care plan than those that reported lack of, or inadequate equipment.

Most respondents who opined that socio-cultural factors influenced the implementation of the nursing process did not apply the nursing care plan in the treatment of patients, and many who held that the factors had nothing to do with the implementation of the nursing process implemented it. Nurses with more years in service are supposed to inspire novices to use the nursing care plan. So, they failed in their modelling role. The nurse owes the society quality nursing care, and religion including family influence the quality of care, so satisfaction with nursing care could be a problem in this setting. No previous studies regarding the socio-cultural factors in the application of the nursing process have been published.

## **Conclusions**

Younger nurses between the ages 21-30 and those with working experience of less than five years were more likely to apply the nursing process. Higher age and longevity were found to be some of the demographic factors that hindered implementation of the nursing process in the hospital. Secondly, implementation of the nursing process was seen to correlate positively with institutional factors such as recognition of the nursing process as a framework of care; administrative support; monitoring of the application of nursing process, supply of relevant tools and recognition of staff following implementation of the plan. Lastly, sociocultural factors as such nursing peers, family, religion and culture hindered implementation of the nursing process. The use of the nursing care plan needs to be vulgarized in the hospital through in-service training. A qualitative study could be carried out to determine client satisfaction with nursing services rendered in the institution. In addition, operational research with an observational design using patients' records is required to improve on the objectivity of this study.

## **Acknowledgements**

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