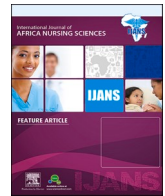


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Nurses' experiences with the adoption and use of the nursing process in four urban hospitals

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ABSTRACT

Introduction: The nursing process is a systematic, scientific process that guides nursing practice. It is the basis on which nurses can provide holistic care to patients in all settings while enhancing communication and continuity of care. It is therefore the recommended tool for nurses if the quality of care must be improved. However, during the provision of care, nurses the world over are challenged to some extent, especially in low-resource settings.

Methods and Materials: The objective of this study was to explore and describe the experiences of nurses with the nursing process in 4 selected urban hospitals in Yaounde-Cameroon.

Results: A qualitative phenomenological research method was adopted, and semi-structured interview guides were used to interview 20 nurses from the 4 hospitals within a period of 4 months running from March 2020 through May 2020.

Discussion: The findings revealed that the nursing process is not effectively utilized despite attempted efforts. The following five themes were retained from the analysis of the data: (1) nurses lack adequate knowledge of the nursing process and are consequently unable to implement it successfully; (2) nurses portray negative attitudes towards the nursing process; (3) staff shortage and difficult work environments hinder the implementation of the nursing process; (4) students are unable to translate the theoretical (academic) nursing process into practice during internships at these hospitals, and (5) lack of the necessary resources impedes adequate implementation.

Conclusion and recommendations: The findings reveal that the nursing process is not adequately implemented in 4 major urban hospitals in Yaounde-Cameroon, for reasons related to knowledge, as well as human and material resources. This reveals the need to improve the acquisition of professional knowledge on the nursing process, improve the working conditions of nurses and provide enough health care financing that will enable nurses to adequately implement the nursing process.

1. Introduction

The nursing process is a systematic client-centered process used by nurses to enhance the quality of care and render it holistic to improve health outcomes of individuals in all settings (Toney-Butler & Thayer, 2020). The nursing profession has evolved from a biological focus on disease treatment to a holistic profession with the nursing process serving to improve the standards of care using nursing intuition and critical thinking. Unfortunately, while the nursing process has been adopted as a mandatory guide to nursing practice meant to improve standards of care in most developed countries, an elaborate review of the literature revealed that most low-resource settings still face major

challenges leading to inadequate implementation with a resulting decline in the quality of care provided and negative health outcomes (Adeyemo & Olaogun, 2013; Agyeman-Yeboah, Korsah, & Okrah, 2017; Aseratie, Murugan, & Molla, 2014; Bernard, Catherine, & Jane, 2018; Hagos, Alemseged, Balcha, Berhe, & Aregay, 2014; Opare et al., 2017; Shewangizaw & Mersha, 2015; Tadzong-Awasum & Dufashwenayesu, 2021).

The objective of this study stems from a gap in nursing literature, research, and practice that was revealed through a systematic review of the literature for some countries in sub-Saharan Africa (Tadzong-Awasum & Adelphine, 2021). Considering that the nursing process has been adopted and taught in many nursing schools and faculties and that

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literature has revealed implementation is still a challenge, it was, therefore, necessary to get firsthand information from the nurses who are making efforts to implement the nursing process. This study fills the gap in the literature for nursing process implementation in Cameroon with the intention of bringing some of the issues to the limelight. A brief look at the literature in the sub-region revealed the existence of studies for other countries like Nigeria, Ethiopia, Ghana, the Democratic Republic of Congo, and others but not for Cameroon. Some of these studies are presented hereunder.

A study in Nigeria assessed the factors that affect the use of the nursing process in clinical settings and revealed that inadequate knowledge, institutional, and professional factors negatively influenced the use of the nursing process (Adeyemo & Olaogun, 2013). Meanwhile, another study found that workload, staff shortage, limited resources, and an increasing number of patients made it almost impossible to implement the nursing process (Edet, Mgbekem, & Olaide, 2013). Aseratie et al. (2014) in Ethiopia found that staff shortage, inadequate knowledge of the nursing process and difficult working conditions negatively impacted the implementation of the nursing process. These findings were confirmed in another study in the same country which revealed that stressful working conditions and inadequate knowledge negatively correlated with the implementation of the nursing process (Shewangizaw & Mersha, 2015). Issues related to the implementation of the nursing process are not so different in South Africa where it has been found that low staffing levels and limited knowledge of the nursing process are hindering factors to adequate implementation (Mutshatshi, Mamogobo, & Mothiba, 2015). Nurses in this country also face challenges related to the labor- and time-intensive nature of the process, leading to negative health outcomes for patients (Mutshatshi & Mothiba, 2020).

Studies in Ghana have revealed that nurses think the nursing process is important but have failed to use it systematically (Gazari, Apiribu, Dzomeku, Adwoa, & Adoliwine, 2020). Difficult working environments and lack of healthcare materials have been mentioned as hindering factors in yet another study still in Ghana (Clarke, 2017). Meanwhile, Opere et al. (2017) found that additional training improves nurses' knowledge of the nursing process and their ability to use the nursing process effectively. Ndayi, Kandolo, Kabange, et al. (2017) found that in the Democratic Republic of Congo, nurses are enthusiastic about the nursing process but lack adequate knowledge that can guide them in the process. However, where nurses endeavored to implement the nursing process, inadequate knowledge, staff shortage, and inadequate motivation were possible hindering factors (Ndayi, Kandolo, Matungulu, et al., 2017). Considering that such published literature was not found for Cameroon, a country in sub-Saharan Africa, the need for this study could not be overemphasized.

2. Methods and Materials

A qualitative phenomenological design was used to explore the experiences of Cameroonian nurses in implementing the nursing process. Phenomenological studies provide an adequate means of probing and understanding the experiences of individuals about any given phenomena to pave the path for possible solutions (Creswell & Creswell, 2017; Neubauer, Witkop, & Varpio, 2019). The method was deemed necessary for this study because the nurses were allowed to voice in detail pertinent issues related to their professional struggle with the nursing process in a difficult context where both human and material resources are always in constant shortage. With the use of a semi-structured interview guide, the nurses were encouraged to freely express themselves regarding this phenomenon.

2.1. Study setting

The study was carried out in four hospitals located in Yaounde, the capital of Cameroon. Cameroon is a lower-middle-income country in

Central Africa with a population of about 25 million inhabitants and two official languages, English, and French (World Bank Group, 2020). Human resource for health in Cameroon is a major concern in the nursing profession as it is estimated that there are approximately 7.8 nurses and midwives per 10,000 population (Tandi et al., 2015; World Health Organisation, 2010). This has contributed to the country performing below expectations as far as health is concerned. The hospitals selected for this study are major establishments in Yaounde which are expected to host a significant population of nursing professionals, in both numbers and quality. All four hospitals are at the central level of the health care pyramid in Cameroon with the mission of training health personnel and providing the best quality of care to the population.

2.2. Sample and sampling techniques

The sample considered for this qualitative study were nurses responsible for implementing the nursing process in their wards. Participants were purposefully selected to meet the inclusion criteria. These were nurses with at least a State Registered Nurse diploma and who accepted to take part in the study. A total of 20 nurses who met the aforementioned criteria were recruited for the study from these hospitals (as seen on Table 1 below).

Inclusion criteria: All nurses with at least a State Registered Nurse diploma who were present on-site and accepted to participate in the study.

Exclusion criteria: All nurses who were present but did not give their consent.

Ethical considerations

Ethical clearance was obtained from one of the four hospitals that host an ethical clearance committee. The document was then presented together with the research protocols to the administration of the 4 hospitals accompanied by consent forms that were to be signed by the

Table 1
List, Qualifications, and Working experience (longevity in service).

Nurse ID/sex/age	Qualifications	Working experience (longevity in service) in years
Central Hospital Yaounde		
1F/42	Registered Nurse	20
2F/40	Registered Nurse	15
3F (TEAM LEAD)/35	BSN (Bachelor of Science in Nursing)	15
5F/35	Registered Nurse	10
6 M (Coordinator) /40	MSN (Master of Science in Nursing)	12
General Hospital Yaounde		
7F (Coordinator)/28	Registered Nurse	5
8 M/45	Registered Nurse	15
9 M/45	Registered Nurse	20
10F (Team lead)/35	Registered Nurse	12
11F/38	BSN (Bachelor of Science in Nursing)	14
Gyeneo-Pediatric hospital		
12F Coordinator /40	BSN (Bachelor of Science in Nursing)	12
13F/35	Registered Nurse	10
14F/35	Registered Nurse	8
15F/32	Registered Nurse	8
Yaounde General hospital		
16F (Team lead) /30	BSN (Bachelor of Science in Nursing)	5
17F/45	Registered Nurse	20
18F/45	Registered Nurse	25
19 M/35	Registered Nurse	15
20 M (Coordinator)/38	BSN (Bachelor of Science in Nursing)	10

nurses who accepted to take part in the study. These documents paved the way for a successful research process with the nursing personnel of these hospitals. Ethical clearance is available, and both the original French and English translated versions will be submitted with this manuscript.

2.3. Data collection

A semi-structured interview guide was used to collect the data. The interviews were recorded with an audio recorder concurrently with field notes to capture the issues and body language that could not be captured by the audio recorder (Emerson, Fretz, & Shaw, 2011; Sanjek, 2019; Sutton & Austin, 2015). Nurses from each hospital were interviewed within the same period and the average length of the interviews was 45 min as follows: Hospital 1 - week of March 2–4, 2020; Hospital 2 - week of March 23–26; Hospital 3 - week of May 25–27 and Hospital 4 - week of July 13–17, 2020. The data was collected in the hospital as this was the most convenient place for such interviews. The research team visited the nurses during their scheduled weekly meetings in the different hospitals and informed them about the research objectives and methodology and solicited their participation. The nursing coordinators then encouraged nurses to make efforts to be part of this study. The research team then picked dates and timeframes as per the convenience of the nurses who were interested and who had signed the consent forms. The researchers then returned to the hospital on the agreed dates and time frames proposed by the nurses who gave their consent to participate. Convenient spots in the hospital were chosen and while seated, the process of data collection started. The entire research team was present and followed up the interviews and the recordings on multiple devices to avoid losing some data.

3. Trustworthiness of the study

3.1. Credibility

Participants were enrolled only after giving their consent during a preparatory meeting organized to unveil the objectives of the study. This enabled them to be prepared both psychologically and practically while enabling them to create time outside their work shifts so as not to interfere with their nursing tasks and shifts. The interviews were prepared in advance to enable adequate exchange and understanding of the issues and thus the experiences of the nurses. Participant responses often necessitated further questioning for an in-depth understanding of the phenomena under investigation. The transcribed data and eminent themes were presented after data analysis to the participants who had them validated and look forward to the impact of the study on care in their hospitals. All the co-researchers were present, and each was required to audiotape and later transcribe the data for cross-examination to ensure no data was lost. This made triangulation of collected and analyzed data possible.

3.2. Dependency

The research method used in this study has been adequately described and can be reused for the same purposes with the same group of participants. Data were transcribed verbatim and securely stored away as well as the analyzed data. Data analysis was refined and reviewed by the principal investigator while co-researchers were allowed to validate both the transcribed data and the emerging themes from their audiotapes and transcripts. The research team met on several occasions, reviewed, and validated the analyzed data as well as the emerging themes to be used as the findings of the study.

3.3. Confirmability

The principal investigator and co-researchers had the obligation to

take field notes alongside the audio tapes to ensure that all information from the interviews was captured. Regular meetings and discussions between the members of the research team were necessary to confirm the research data from all the interviews and participants in all dimensions. This was ensured by sharing transcribed data and rereading for necessary adjustments.

3.4. Transferability

A purposeful sampling method was used to select participants to fit the selection criterion and objectives of the study in all 4 study settings. In addition, data from this study can be generalized because data saturation was attained both within and across settings. The themes generated from saturated data are similar across settings, as such where necessary generalizing to other settings within the country of study is a possibility.

3.5. Data analysis and management

Data were transcribed verbatim by the members of the research team and later coded manually by bringing similar information together and organizing them into categories, patterns, and later themes. The choice of coding method was determined by the resources and the quantity of data that was available for this study (Basit, 2003). Transcribed data were explored, highlighted, and organized into larger groups (Categories), which were later grouped into patterns and then into smaller units (themes) to enable a better understanding of the subject matter (an except of the transcribed data can be found on Table 2 below).

4. Results

After data was duly transcribed verbatim and analyzed together with the field notes, the following five themes were retained.

4.1. Nurses lack adequate knowledge of the nursing process to enable them to carry it out successfully

Considering that critical thinking is necessary for the implementation of the nursing process, lack of adequate knowledge on the process becomes a major hindrance as revealed by most of the participants. Most of the nurses reported that they carried out some form of the nursing process but were unable to specify exactly which steps they focused on. The term “nursing care plan” was often used when nurses referred to the nursing process. Some of the nurses were able to cite the different steps of the nursing process but were unable to explain each of the steps in detail. The difficulty faced in the analysis and interpretation phase revealed a knowledge gap that could render the nursing process a difficult aspect of care considering that each nurse had his or her understanding of this phase. For example, one of the nurses stated “*There are so many grades of nurses in the hospital and each nurse has his or her understanding of the nursing process and different ways of analyzing collected data. This makes it difficult to harmonize. Some nurses claim they do not know what the nursing process is and some who know think it is too difficult to practice.*”.

One nurse admitted that it is sometimes difficult to determine who possesses adequate knowledge of or understands the nursing process given that it is not a regular activity in the wards.

4.2. Nurses portray negative attitudes towards the nursing process

Nurses are reported to portray negative attitudes like negligence, and lack of intrinsic motivation as far as the implementation of the nursing process is concerned. The nursing care plan available in the wards was a clear indication of such negative attitudes as nurses presented only the medical prescriptions to the patients. This is an indication that the autonomous role of the nurse is neglected or not documented. Some

Table 2
An excerpt from the responses of the nurses.

Guiding interview question	Responses
Can you tell us something about the nursing process? What do you know about it? Tell us the different phases and whether you carry it out or not.	<p>1 "... The nursing process helps to take care of the patient. It is a process that needs many nurses to be available, first to collect the data, analyze and then plan. Yes, it is a lot of work and we are very few qualified nurses..... I try to implement it but it is difficult. It takes too much time and I am not sure I can do it for a long time. There are many patients. Yes, not easy....."</p> <p>2. "... The nursing process is the nursing care plan, used to follow up the patients and I do not see many nurses using it. There are so many grades of nurses in the hospital and each nurse has his or her own understanding of the nursing process and different ways of analyzing collected data. This makes it difficult to harmonize. Some nurses claim they do not know what the nursing process is and some who know think it is too difficult to practice."</p> <p>3. "Hmmm! The nursing process is magic. Who can do it manually? With all the work we have in this service? There are not enough nurses and even when you try to carry it out, you cannot do it for all patients. You soon give up as all nurses do not do it. How many nurses are here? This is almost impossible with the way things are going. Only getting worse so it is difficult. Hai! This is school knowledge. When I started work I soon forgot it and going back to learn it is too much work for me. Even the basic nursing takes too much of our time."</p>
Can you share with us your experiences with the nursing process in your ward? What is your experience with trying to implement it?	<p>Nurse 1. The nursing process is a time-consuming process and this needs many nurses. We have many patients in the ward and sometimes it is difficult to give them their medication. We are just trying to help them as the work load is too much. My experience is that the nursing process is too long, we are unable to carry it out consistently.... How many nurses do we even have to implement the nursing process? The problem is the time, the stress, you put in to care for the patients before talking about preparing the nursing care plan. It is not possible. Not at all." Another nurse lamented: "It is really hard. We are just doing what we can. This is not more nursing care because there are too many patients. We are unable to provide basic care and serve medication to all these patients. So there is never time to think of planning care or the nursing process."</p> <p>Nurse 2. "The problem with the nursing process starts from the classroom, I think... I had difficulties applying it on the field. Even the students who come for internship are unable to do the practical work so there is a problem at the level of training if they do not understand it well. I am already tired and I do not think I am supposed to be the one to teach them. They should come fully prepared to practice but my observation is that they are unable to do what they were taught in class do there is a real problem."</p> <p>Nurse 3: The problem is with the materials. We do not have the nursing care file. Sometimes when you spend your time and plan care the patient does not have all the care material; so you get disappointed and give up. It is very difficult to try even the basics of the nursing process."</p> <p>Nurse 15. "The nursing process is</p>

Table 2 (continued)

Guiding interview question	Responses
Can you tell us what you think can be done to solve the issues related to this	<p>something many nurses have not been able to implement. I will bring you some nursing files of some patients and you will see that some actually start but there is no follow up or continuity. (he pulls these out and shows us) "See this nurse started and the one who came after her did not continue so it ended. So for all these files we have only 2 nurses.. what can they really do? Sometimes you think that nurses do not want to do it but it is the conditions of work that are hard. Some nurses do not really know how to do it. Those who know, attempt and give up... It is a big problem and I think the younger ones should look for ways to really solve this problem. If not, it will be difficult to implement even in the future"</p> <p>Nurse 8: The nursing process as I can see can be difficult to implement if things do not change. Writing and writing and writing... you do not have time to care for the patient. I hear in other countries computers are used. The young generation of nurses can be trained to use it on the computer. The issue of nurse shortage should be resolved and working conditions improved.... Like the pay, too much work but materials and nurse benefits... are too small."</p> <p>Nurse 5: Nurses should be well prepared from nursing school. I think the nursing process needs to be simplified and rendered mental. If you have to do all that writing then you will never cope... never. I have seen students struggle with it and a few days down their internship they abandon it. So something is definitely wrong. Yeah. Above all... there is too much work. It is not possible to work like this every day and be happy. This can explain why nurses neglect the nursing process. They lack the will power to do it. It is because they are always working ... too many patients, too much to do and few nurses...</p> <p>Nurse 6: "Hmmm... it is a difficult question to answer</p>

nurses claimed that they carried out a mental nursing process but were unable to cite the nursing interventions that had been mentally planned. One nurse had this to say. "the nursing process is better done mentally because I find it difficult to plan all those activities. Also, I do just what I can and not all the time. I find it hard to do it on a permanent basis" When asked why, this participant said, "no one does it... so once you start it you easily give up."

4.3. Staff shortage and difficult working environments are a hindrance to the implementation of the nursing process

This was a very important finding for this study considering that the nursing process is time-consuming and labor-intensive in low resource settings as it is still manually processed. Nurses complained that the wards have very few qualified nurses who can carry out the nursing process. Nursing assistants are not nurses and do not have the competence of carrying out the nursing process but constitute the majority of the personnel in the wards. The nurses who are competent and have the academic and/or professional authority to carry out the nursing process are overworked and are usually not in adequate numbers to carry out basic care procedures, let alone implement the nursing process.

A nurse declared: "The nursing process is difficult to implement in a context where there are not many nurses. We have 20 patients in this ward and each team has one nurse and 4 nursing assistants who do not know

anything about the nursing process. It can only be magic to implement the nursing process in this context” Another stated: “How many nurses do we even have to implement the nursing process? The problem is the time, the stress, you put in to care for the patients before talking about preparing the nursing care plan. It is not possible. Not at all.” Another nurse lamented: “It is really hard. We are just doing what we can. This is not more nursing care because there are too many patients. We are unable to provide basic care and serve medication to all these patients so there is never time to think of planning care or the nursing process”.

4.4. Students are unable to translate the academic nursing process into practice during clinical

Nurses mentioned that student nurses had difficulties carrying out the nursing process during internships as they are either not willing try it out or may not have understood the theoretical academic process enough to translate it into practice in the hospital setting. “Students who come for internships are unable to carry out the nursing process. Their instructors need to help them or come with them and help them practice what was taught. Very few make efforts and if the nursing process must be a reality, it should start in the classroom...and with the young ones. We are already preparing to leave the profession and these young ones must learn and understand it well so they will be able to practice it”.

Another nurse stated: “Those who teach the nursing process may have to review how they do it. They need to render it easier for the student nurses so they start gaining interest in it right from the classroom. I find it difficult because it was never really understood in the classroom. So let the teaching of the nursing process from the very early years of nursing education be given all the attention it deserves, to help the students understand its importance and, most importantly, if possible, simplify it”.

4.5. Lack of necessary resources for adequate implementation

The nursing process in low-resource settings can be very challenging. Firstly, the findings reveal that a proper nursing process requires resources like the nursing care file and writing material which is not always available. In addition, nurses think that a computerized nursing process may facilitate implementation. Secondly, the nursing process requires the collaboration of the patient who should first give their consent and also provide all the resources for the necessary interventions. Findings reveal that where and when nurses are willing to attempt the nursing process, they face difficulties with patients’ inability to cooperate or provide the required basic nursing care material.

A nurse coordinator stated: “The nursing process is time-consuming. If we had it computerized like in order countries with persons to assist at all times then we can make efforts. Many nurses think that they cannot continue planning care manually and this is understandable. There is too much to do, yet there are no nursing files in which the nursing process can be prepared, so this discourages many nurses... There must be a way of helping nurses facilitate this process... provide the necessary materials and why not computers?”.

5. Discussion

5.1. Nurses lack adequate knowledge of the nursing process to enable them to carry out the nursing process successfully

The nursing process is a scientific and dynamic process that requires a certain degree of critical thinking and intuition (Toney-Butler & Thayer, 2020). Unfortunately, findings revealed that nurses lack the adequate knowledge and critical thinking skills that can enable them confidently implement the nursing process. This is a very important finding as knowledge is primordial for all scientific processes. It reflects some of the findings in the literature for most countries in sub-Saharan Africa where authors found that nurses may be ready to carry out the nursing process but do not have adequate knowledge as far as the entire

process is concerned (Agyeman-Yeboah & Korsah, 2018; Bernard et al., 2018). Contrary to this, there is evidence that nurses who had good knowledge of the nursing process were more likely to implement it than those who did not (Oronje & Munyasa, 2018; Soyinka & Salawu, 2020; Wube, Wurjine, & Bekele, 2019).

The nursing process is an important aspect of nursing practice that enables continuous holistic care provision and communication between nursing care teams. Nurses must be given the opportunity to acquire adequate knowledge and be prepared to use it appropriately for improved patient outcomes in all settings (Hagbaghery, Salsali, & Ahmadi, 2004; Lockwood & Hopp, 2016; Zamanzadeh, Valizadeh, Tabrizi, Behshid, & Lotfi, 2015). If inadequate knowledge is validated as a major issue in this study as well as in the literature for other sub-Saharan African countries, there is an urgent need to readdress this in the sub-region and Cameroon in particular, with the hope of improving the quality of nursing care for greater patient outcomes. Continuous professional development courses should be encouraged for nurses as these have the potential of improving their knowledge and critical thinking. This was put to evidence in Kenya where the practical and theoretical competencies of nurses concerning the nursing process were improved through a targeted continuous training program (Opare et al., 2017; Schön, 2017; Wagoro & Rakuom, 2015).

5.2. Nurses portray negative attitudes towards the nursing process

Nurses were reported to portray negative attitudes like negligence and demotivation with respect to the implementation of the nursing process. This finding validates the findings of other studies in other countries within the sub-region which also revealed such negative attitudes (Baraki et al., 2017; Mwangi, Meng’anyi, & Mbugua, 2019). This expressed extreme lack of interest was reported to be related to the failure to recognize nursing autonomy in all four hospitals. On the contrary, Rodrigues Silva, de Fátima Almeida Lima, Barros Furieri, Cançali Primo, and Fioresi (2018) found that nurses who were satisfied with their career and their workplace portrayed better attitudes towards nursing process implementation. While attitude is known to be influenced by many factors including the work environment, job satisfaction, and organizational commitment (Susanty, Miradipita, & Jie, 2013), negative attitudes have the potential of translating into lack of intrinsic motivation and dissatisfaction, poor quality of care with resulting poor health outcomes (Jenerette, Pierre-Louis, Matthie, & Girardeau, 2015; Rodrigues Silva et al., 2018). It, therefore, becomes necessary for nurse leaders in Cameroon to seek to understand the underlying causes of such negative attitudes and have them resolved for the interest of the patient and the image of the nursing profession.

5.3. Staff shortage and difficult work environments hinder the implementation of the nursing process

The participants in this study reported an acute shortage of nurses in the hospitals rendering the implementation of the nursing process a near impossibility given that it is a task-intensive activity. This validates findings from other countries within sub-Saharan Africa which revealed that staff shortage is a major problem in most hospitals and a major hindrance to the implementation of the nursing process (Edet et al., 2013; Mangare et al., 2016; Mutshatshi et al., 2015; Ndayi, Kandolo, Kabange, et al., 2017). An increase in nurse-patient ratio in other settings has negatively affected the quality of care, thus making staff shortage a major issue in the health sector (Qureshi, Purdy, Mohani, & Neumann, 2019). This finding can also explain the link between the quality of care, morbidity, and mortality rates for some of these countries as there is evidence that improved nurse-to-patient ratios are associated with better population health indices (Bigbee et al., 2014; Qureshi et al., 2019).

Considering that understaffing is a major health care concern in sub-Saharan Africa (and Cameroon in particular) where most WHO member

states have reported that there are fewer than 3 nursing personnel per 1000 of the population (World Health Organization, 2016b), and that the nursing profession is supposed to provide holistic care to all individuals with the nursing process as a guide, this becomes an almost impossibility (Potter & Frisch, 2007; Tandi et al., 2015). There is need for governments and nursing associations to review recruitment policies for nurses that will lead to lasting solutions to understaffing and provide nurses with the best possible conditions to meet population needs (World Health Organization, 2020, 2021).

5.4. Inability to translate the theory into practice and expressed lack of interest by students during clinical internships

Professional nurses reported that nursing students on internships do not take interest in the nursing process and reveal difficulties in practical application. Theoretical knowledge of the nursing process is important yet practical application becomes more important in clinical settings. The findings revealed that nursing students who are future nursing professionals do not receive adequate clinical supervision that can enable them to properly translate acquired theoretical knowledge to clinical practice. The translation of knowledge from theory to practice is an important part of nursing education that must be taken into consideration during clinical immersions for a smooth transition into the profession. This finding reflects the findings of a recent study in South Africa which revealed that nurses had the necessary theoretical knowledge but were unable to clinically translate the knowledge to improve patient care (Mutshatshi & Mothiba, 2020). There is also evidence from other settings that students always experience difficulties in the transfer of theoretical knowledge to practice they need to be fully accompanied by their instructors as well as onsite preceptors (Günay & Kılınc, 2018). This may be accounted for by inadequate preparedness of both the student and their instructors that affect assimilation of course work and eventual transfer in clinical settings (Cheraghi, Salasli, & Ahmadi, 2007; Cheraghi, Salsali, & Safari, 2010; Henderson, 2002). Nurse educators and faculty need to revisit the teaching methods about the nursing process to ensure its proper assimilation in the academic environment to facilitate translation to clinical practice. It is also recommended that professional nurses renew their knowledge of the nursing process on a permanent basis through continuous professional development courses that will enable them to assist the student nurses.

5.5. Lack of necessary resources for adequate implementation

The nurses in this study revealed that they lacked resources that could enable them adequately to prepare and carry out the nursing process. The nursing process is implemented at all levels of care and nurses working in low-income settings find it difficult to adequately implement it in the absence of necessary resources. Most countries tend to provide nursing care resources and payment options upon admission to hospital as well as an adequate number of nurses to care for them (Scott et al., 2019; Zinn, Weech, & Brannon, 1998). Unfortunately, this is not the case in most African countries where health care is paid out of pocket, health insurance is not easily available and patients need to provide nursing care resources before being attended to (Mwaura & Pongpanich, 2012; Ndiaye, Soors, & Criel, 2007). In addition to resources to be provided by the patients, most hospitals have failed to provide resources like the nursing file, nursing care plan templates, and a computerized system of patient data that can facilitate implementation of the nursing process (Ndayi, Kandolo, Kabange, et al., 2017; Wube et al., 2019). This has rendered the nursing process a tedious task for nurses coupled with other difficulties associated with low-resource settings. The issue of resources can be overcome by increasing government subsidies to hospitals that will reduce patient spending and enable hospitals to provide basic nursing resources free or at a reduced cost for those who are unable to afford (Dizon-Ross, Dupas, & Robinson, 2013; Dupas, 2014). An improvement in healthcare financing as required by

the Abuja declaration will go a long way to improve nursing care and other healthcare services rendered to the population, increase access to health care, and overall health outcomes in all settings (Mills et al., 2012; World Health Organization, 2016a).

6. Recommendations

The nursing process needs to be integrated as a mandatory part of the nursing care activities in all settings. For this to be possible, nursing education, nurse recruitment in quality and quantity must be reviewed. Computerization of the nursing process, as well as an improvement of other working conditions of nurses, may reduce workload and negative attitudes linked to perceived demotivation.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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