

Factors Influencing Nursing Process by Nurses at Federal Medical Centre, Apir, Benue State, Nigeria

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Abstract

Many countries have adopted the nursing process as a basic requirement for quality health care services, but there is a problem with its implementation in the clinical areas of many healthcare facilities. Even though the generality of nurses agrees with the benefits of the nursing process, they do not always use it practically. The implementation of the nursing process in Federal Medical Centre (FMC) Apir is not well organized and advanced as it ought to be. An institutional-based, descriptive cross-sectional study design was conducted at FMC Apir. A simple random sampling technique was applied to select study subjects. The data were collected using self-administered questionnaires. Binary logistic regressions were used. Then, $P\text{-value} < 0.05$ was considered statistically significant in this study. This study revealed that 62.8% of nurses implemented the nursing process. Work experience greater than or equal to five years [AOR: 1.81; 95% CI (1.29–4.81)], support from the administration of the organization to do the nursing process [AOR: 1.96; 95% CI (1.20–3.03)], and knowledgeable nurses [AOR: 2.21; 95% CI (1.30–4.98)] are significantly associated with the implementation of the nursing process. Exactly sixty-two nurses at FMC Apir implemented the nursing process. Work experience, organizational support to implement the nursing process, and knowledge were significant factors affecting the implementation of the nursing process.

Keywords: *Nursing process, Nurse, Implementation, Health care, FMC Apir.*

All over the world, nurses constitute a very high percentage of healthcare system personnel. As compared to other healthcare professionals, they spend more time with patients and play a pivotal role of the healthcare system in most countries (Bayih, Ayalew, Belay et al; 2021).

Nursing quality is closely related to healthcare systems effectiveness. It is contended that in order to achieve quality of healthcare service, quality of nursing care is the key element. To fill this demand, application of nursing process has a significant and pivotal role to play (Hagos, Alemseged, Balcha, Semarya, and Aregay, 2014). In fact, the quality of nursing care is measured by nursing process (NP) (Bayih et al; 2021).

Nursing process is a systematic method of assessing, diagnosing, planning, intervening and evaluating individualized holistic care of every patient (FMOH, 2011). Potter and Perry (2013) considered nursing process as a systematic approach of problem solving to identify, prevent and treat actual or potential health problems and promote wellness. Nursing process is also conceptualized as a systematic, patient-oriented and purposive

approach which provides a framework for nursing performance (Zamanzadeh, et al; 2015; Lotfi et al; 2018). It is considered as a practical tool of guiding nurses' critical thinking to make their own independent decisions for addressing clients' needs to improve healing Mutshatshi and Mothiba, 2020, underscored the importance of nursing process by surmising that the process has been widely recommended as all approach that guides nurses towards quality nursing care and that non-adherence is associated with substandard patient care. This assertion is in support of the fact that in most developed countries of the world, the nursing process is regarded as a standard for nursing practice in their healthcare systems. (Baraki, Gimay, Kidann, et al; 2017); Hence the effective implementation to the nursing process in clinical settings brings improvements to un-equality of nursing care, the patient's health outcomes and promotes the nursing discipline (Mwangi, Meng'anyi, and Mbugna, 2019).

The nursing process is grounded on the methodological problem-solving process, and thus creates the basis for nursing practice.

Nursing process comprises of five steps, which are assessment, nursing diagnosis, planning, implementation and evaluation (Abdellcader

and Othman, 2017; De Medeiros Dantas et al, 2016). These steps are interrelated to one another and when all the steps are implemented well, the planning and provision of quality and comprehensive nursing care are achieved.

As desirable as nursing process is to the scientific basis of nursing care and provision of quality care to patients, many challenges beset its practice in clinical settings especially in developing countries including Nigeria where it suffers low implementation/utilization (Afolayan, et al., 2013); Zamanzadeh et al., 2021.

The use of nursing process in most hospitals is still lagging behind despite all the effort of nursing professionals to implement its use (Momoh & Chukwu, 2018).

According to North American Nursing Diagnosis Association (2013), nursing process is a five-part systematic decision-making method focusing on identifying and treating responses of individuals or groups to actual or potential alterations in health. The steps of nursing process are assessment, nursing diagnosis, planning, intervention and evaluation and the first version was established in USA in the early 80s.

Globally, according to current American and Canadian practice standards, nursing practice demands the efficient use of the nursing process in providing nursing care to the patients and this approach depends upon numerous factors of a clinical, educational and management nature if it is to succeed in practice (Freitas, 2009). A study conducted by Lee (2009) showed that out of 400 nurses that participated in the study only 112 (28.3%) used the nursing process always while providing the nursing care to the patients, 81 (20.7%) somewhat used nursing process and 200 (50%) did not used nursing process at all. The results of a study conducted in Tehran demonstrated that only 21 (13.3%) of the 156 respondents practiced nursing in their nursing care to the patients and 135 (89.7%) reported that they had no time for the implementation of nursing process (Akbari & Shamsi, 2011).

Many countries in Africa have adopted the nursing process approach in patient care but the problem lies in its utilization in the clinical setting (Mbaku & Demba, 2014). The extent of nursing process implementations in clinical settings has not been extensively studied and documented in many African countries including Uganda. Research carried out in Nigeria showed that the implementation of nursing process in health institutions has been

rather slow, its acceptance by nurses is resisted and the health institutions have not done enough to promote the use of nursing process hence a decline in the quality of nursing care given to patients (Anyebe, 2009). The findings of a study in Ghana showed that although nurses had good theoretical knowledge, only 30.5% practically implemented the nursing process and personal factors contributed 70% to the poor implementation of nursing process (Agyeman, Korsah & Okrah, 2017).

Research carried out in Morocco, Amran district government hospitals showed that utilization of nursing process by clinical nurses was limited by institutional factors by 55% and hence this was contributing to the poor quality of patient care (Baraki et al., 2017).

A study at Debre Markos Referral Hospital, northwest Ethiopia in 2016, showed that out of the 124 respondents, 37.1% practice it well, 50% somewhat and 13% did not practice nursing process at all and this affected the patient care negatively (Mangare, Omondi, Ayieko, Wakasiaka, & Wagoro, 2016). A study conducted by Mbunya (2010) at Kenyatta National Hospital

revealed that only 2% of nurses in the ward were implementing nursing process always in their nursing care, 58% occasionally implemented nursing process and 40% did not apply nursing process at all.

A study conducted in 4 African countries in 2010 showed nurses generally agree on benefits of nursing process although they do not commonly use it in practice (Sabona, 2010). Birabwa (2012) showed that despite structured and comprehensive training of nurses on nursing process, implementation of nursing process in Uganda is low leading to poor quality health care and this in turn leads to increased morbidity and mortality rates in our health institutions. The implementation of nursing process in most hospitals especially in low and middle-income countries reportedly remains a challenge despite efforts being made (Muhamoud & Bayoumy, 2014). Uganda being in this category of low and middle-income countries is not exempt from these challenges. In African countries, the Nursing Process was adopted even if it encountered some challenges. A study aimed to evaluate the utilization of Nursing Process and patient outcome in Nigeria revealed that only 60% of professionals willingly applied the Nursing Process in the care of the patients, The challenges related to

this lack of NP application were inadequate practical knowledge, inadequate staff, work overload, and management's inability to provide the needed materials among others (Afolayan et al., 2013).

Ever since the use of nursing process became an approach in clinical nursing, practice for determining nursing care given to individual clients. It is a standard for practice and requirement for accrediting many schools and practice setting in the United States.

In Nigeria currently, only few hospitals are using it (Federal Medical Centre inclusive) even though the nursing and midwifery council has approved it, integrated it in curriculum and it is required for licensure. Attempts have been made in the past by nurse-leaders to provide a scientifically sound process of providing care.

The nursing process is an internationally accepted approach to render scientifically sound, goal directed and client centered care that can be easily documented and evaluated at all settings. Nursing process is being taught in all school of nursing and midwifery as well department of nursing since over two decades. However, the application at the clinic level is still very poor; Federal Medical

Centre inclusive as it forms the focus of this study.

Statement of Problem

Nurses are the largest group of health professionals in every health care institution and quality of nursing care delivered by nurses is closely related to effectiveness of healthcare system (Wilson, Whitaker & Whitford, 2012). Nurses are the vital care givers in hospitals, they can altogether impact the quality of care delivered and ultimately treatment and patient outcomes (Lee, 2009).

There is a demand to implement the nursing process in practical care in every health institution, hospital, and community, but the perception is that it is time-consuming and impractical. If the nursing process is not valued and used, nurses may continue to intervene on the basis of a medical diagnosis rather than a rational nursing assessment, planning, evaluation, record keeping, and feedback. Oversight or omission in any of the steps can lead to subpar nursing care. If the nursing process is not used, the question of how nurses assume responsibility and accountability for the patient and how to assess the quality of nursing care may arise. Pokorski S, Moraes MA, Chiarelli R, Costanzi AP, Rabelo ER (2020). Hence the need of this research to find out the

problems for non-implementation/utilization of the nursing process in the care of the patients in the study hospital and to seek the way of solving the identified problems so as to join our counterpart in the developed world to raise and maintain the global standard of nursing profession and its practice.

Ethical Considerations

The Research and Ethics Board of the Federal Medical Centre Makurdi granted ethical approval for the commencement of the study. To ensure ethical standards, informed consent was sought from participants before participation in the study. They were assured of anonymity, privacy and confidentiality

Purpose of the study

The purpose of the study was to identify the factors that influence nursing process by nurses at Federal Medical Centre, Apir.

Study design and Setting

A cross-sectional observational research study was employed. Federal Medical Centre (FMC) Makurdi, is located in the heart of Makurdi town. It was established in January, 1995 and has four-hundred (400) bed spaces. At present, the available number of beds in good shape are three-hundred and seventy-

six (376). The Federal Medical Centre offers general medical services with specialist consultants heading these units according to their areas of specialization.

Study population

The target population was qualified registered/professional nurses at Federal Medical Centre, Apir. All participants recruited voluntarily consented to participate in the study. Nurses who were excluded in the study were students and rotational nurses; nurses with less than a year working experience; and nurses on annual or maternity leave. The study selected 288 participants, calculated using the Yamane Formula (Yamane, 1967) ($n = N1 + (e)^2$), where, N is the population size and e , the level of precision. This process was adopted to ensure representativeness of the sample population.

Method of sampling

This research adopted simple random sampling. This research method is adopted due to its record as being one of the best probability sampling techniques and it saves time and resources. It is a trustworthy method of gathering information in which every single

member of a population is chosen at random, purely by chance.

Data analysis procedure

Data were entered into and analyzed using SPSS version 20 after being checked for completeness, missing values, and questionnaire coding. The statistical analysis was performed with a 95% confidence level and a margin of error of 5%. Descriptive statistics were used to summarize and describe the data. The relationship between the independent and dependent variables was determined using multivariate logistic regression. The independent variables used in the multivariate logistic regression were chosen using a bivariate logistic regression with a p-value cutoff of less than 0.3, and the goodness of fit model was evaluated using the Hosmer-Lemeshow statistic. These variables were then declared statistically significant with a P-value of 0.05 at 95% confidence interval (CI).

Results

Demographics of respondents

According to the study, majority 88 (83.3%) of the respondents were female nurses while the minority 17 (16.7%) were male nurses.

This implied that most of the nurses were female. This could be the fact that, nursing is perceived more of a female role in health care. Majority 55 (52.4%) of the respondents were between 20 and 30 years. This implied that the respondents were old enough and could have enough experience which could have influenced their utilization of nursing process. There were 75 (71.4%) respondents who were enrolled nurses, 40 (19.1%) were registered nurses and 10 (9.5%) had bachelors of Science in nursing. The varying types of training of respondents could have significant influence on personal factors that influenced their utilization of nursing process. 33 (13%) of the respondents worked in surgical ward and minority 10 (9.5%) worked in the postnatal ward. 50 (47.6%) of the respondents of the respondents had experience of 5 years and below which implied that majority had low work experience which could influence the utilization of nursing process.

Ffactors that influence clinical utilization of nursing process

The study showed that almost 102 (99%) respondents understood what nursing process was but majority 83 (79.2%) were unable to define nursing process correctly and 22 (21.8%) were able to define nursing process, majority 90

(85.7%) of respondents were unable to write all the steps of nursing process and the minority 15 (14.3%) of the respondents were able to write all the steps of nursing process. This implied that the respondents had poor knowledge on nursing process and this would limit the utilization of nursing process according to Fisseha et al. (2014) who showed that poor knowledge on nursing process was one of the barriers to implementation of nursing process.

According to the study 60 (79.4%) of the respondents obtained nursing process training from school. These findings were similar to the findings of the study conducted by Freitas (2009) which showed that 29 (80%) of the respondents obtained their training from training school and this affected their knowledge on nursing process as they were more likely to forget the steps of nursing process with time if no ongoing job training on nursing process was carried out. The study found out that 93 (88.5%) of the respondents didn't use nursing process in the management of patients and only 12 (11.5%) of the respondents used nursing process in the management of patients and 98 (98%) sometimes used nursing process in the management of patients. The study findings

were similar to the findings of the study conducted by Clarkem (2017) on application of nursing process in pediatric care and factors associated with its implementation that showed that 56 (86.0%) of the respondents agreed that they were not using nursing process during the management of children.

5.2 Conclusion

According to the study, nursing process was partially utilized by nurses in FMC Apir because of some of the factors that included; - poor knowledge and skills on nursing process that limited the implementation of nursing process, lack of time for implementation of nursing process although nurses had good attitude towards nursing process.

Institutional factors also affected the utilization of nursing process and this included; - poor motivation of nurses who tried to utilize the nursing process, staff shortage, poor supportive supervision by the ward managers and work overload although the management supported the implementation of nursing process by provision of the tools required for its implementation.

The ways to promote utilization of nursing process were conducting frequent CMEs and training on nursing process, encouragement and

motivation of nurses to implement nursing process by ward managers and employ more staff to the units.

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