

## **FACTORS INFLUENCING THE UTILIZATION OF THE NURSING PROCESS IN OGUN STATE, NIGERIA**

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### **ABSTRACT**

The utilization of the nursing process has not been satisfactory in certain areas in Africa, as such the need to identify the factors that influence its utilization in patient care in these setting. This study was aimed at identifying the influence of personal, professional and institutional factors on the utilization of the nursing process in Ogun State, Nigeria. A cross-sectional study design and quota sampling method was used. A total of 125 nurses from three selected hospitals, in Ogun State, Nigeria were used. The data were collected between June and August 2013. A questionnaire was administered to each participant and a correlation coefficient calculated to test hypothesis. The result showed that the personal factors emanating from nurses does not strongly influence the utilization of the nursing process  $R^2 = 0.012$ ,  $p = 0.447$ . It also showed that institutional factors  $R^2 = 0.404$ ,  $p = 0.000$  and professional factors  $R^2 = 0.410$ ,  $p = 0.000$  influence the use of the nursing process. Recommendations proposed are that the health institutions should consistently review the workload of nurses, provide stationeries, and use information technology to boost the utilization of the nursing process. Nursing authorities are to rise up to the challenge of enforcing the use of the nursing process in the care of patients, and sanctioning defaulting institutions for falling below the minimum standard.

**KEYWORDS:** Factors, Nursing Process, Utilization

### **INTRODUCTION**

The nursing process is a trademark for the nursing profession, it is the benchmark for professional autonomy and as such it is the foundation of the basic training of the nurse. The nursing process has been introduced in the schools of nursing and department of nursing for a long time now, but the impact is not felt in the clinical area in certain parts of Africa. The utilization of the nursing process in a part of Africa has not reached the standard that is set by the profession's regulatory body, i.e. the Nursing and Midwifery council and the Association of Nurses and midwives. The factors that influence its utilization in Nigeria and Africa at large need to be understood in relation to those factors that influence utilization of the nursing process in other parts of the world.

The scope of nursing practice has greatly expanded increasing the accountability and responsibility of the nurse in the role as a care provider. As part of fulfilling our responsibility and scope, nursing process was implemented. The nursing process is a method used by nurses in solving patient problems in professional practice<sup>1</sup>. It is an outgrowth of the scientific method and can be used as a framework for approaching almost any problem. The nursing process is an interactive, problem-solving process. It is systematic and individualized way to achieve the best outcome of nursing care.

The nursing process has become the framework for standard evidence-based nursing practice. Nurses however,

often, either do not understand the nursing process model or do not use it. In recent years some nursing leaders have questioned the use of the nursing process, describing it as linear, rigid, and mechanistic. While it can be taught, learned, and used in that manner, it can also be used as a creative approach to thinking and decision making in nursing<sup>2</sup>. Since the nursing process is an integral aspect of nursing education and practice nationwide, learning to use it as a dynamic approach to patient care and a tool for critical thinking is a worthwhile endeavor. In spite of debate within and outside the profession about its usefulness, the nursing process remains conerstone of nursing practice and should be well understood by every nurse. Several prior studies have shown that the implementation of nursing process is a challenge for nurses for a variety of reasons<sup>3</sup>. Therefore, this study will explore the factors that are influenening the utilization of nursing process in SouthWest, Nigeria.

## LITERATURE REVIEW

The nursing process is a process by which nurses deliver care to patients, guided by nursing models and theories. The nursing process was originally an adapted form of problem-solving. The nursing process is a patient centered, goal oriented method of caring that provides a frame work to the nursing care. It involves five major steps of assessment, nursing diagnosis, planning, and implementation and evaluating. Assessment involves gathering subjective and objective data about the client's condition, diagnosis encompasses the human response needs that nurses can deal with, planning involves the use of nursing care plans and prioritizing nursing implementation plans, implementation of care involves skillful and competent actions taken to meet the needs of the client, evaluation is done to determine the success of the implemented care<sup>4</sup>.

Lee<sup>3</sup> conducted a study at a male surgical ward 2 in Lampung regional hospital on the factors and barriers to utilization of nursing process. The investigator found out that nursing process was partially utilized. The nurse administrators viewed that they did encourage nursing process utilization by clearly stating the philosophy, policy and objective. Also the nursing personnel were educated and trained about implementing nursing process and followed by regular supervision. According to the nurse administrators, they provided facilitating factors to enable nurses to utilize nursing process. However, the professional nurses and the technical nurses indicated that there were inadequate supports from the nursing administrator thus creating barriers to the utilization of nursing process. The researcher suggested that in order to fully utilize nursing process, the nurses must be prepared in terms of knowledge, skills and attitudes. Supervision is needed as well as other facilitating factors, and the workload should be appropriate. Difficulties and factors pointed out by nurses based on literature review related to theoretical and practical knowledge to perform the phases of the nursing process include insufficient knowledge, lack of compliance, workload, lack of manpower to support the process and insufficient continuous education programs<sup>1,3,5</sup>.

The nursing process is a cyclic, goal oriented, and systematic tool for client care by nurses. Therefore the nurse has to be well grounded in its use. The improper assessment of the client's need would affect the drawing of correct nursing diagnosis. If wrong nursing diagnoses are drawn then the planning and implementation of care will be wrongly applied to the client's care needs. The institutional factors are those factors arising from institutional policies, number of nursing staff in proportion to the clients, the duration of a shift i.e. working hours, availability of resources necessary for its implementation, and support from nursing administrators. The professional factors include all the complexity of the process, the consistency in stating nursing diagnosis, the freehand given to nurses to operate on their own, the support from all nurses to use the nursing process.

Nursing process has been adopted in hospitals world-wide and their applications were studied. However, a systematic review of research findings on the utilization of nursing process is lacking especially in Nigeria. The challenge for many institutions is to help nursing staff refine their understanding of nursing process, to accurately identify patient problems and develop appropriate care plans<sup>3</sup>. A standardized nursing language improves understanding and communication. In addition, it can expand nursing knowledge, improve nursing education, and increase comparability when measuring phenomena across individuals or across different settings.

The application of nursing care plan to everyday practice results in elevated standards of nursing care, increased quality of nursing care as well as personal and professional growth for nurses. Additionally, using nursing process in practice not only benefits patients, but also strengthens nursing as a profession. According to the International Council of Nurses<sup>6</sup>, nurses are professionally obliged to provide care based on the best available research evidence in practice and be accountable for providing the best possible care. Using the nursing care plan as a tool to guide care provided to patients will allow nurses to autonomously make some decisions that can promote healing.

One strategy to increase nursing process utilization in practice is to identify barriers to nursing process utilization. However, there had been few research in Nigeria conducted to examine those barriers. In studies regarding barriers to nurses use of research findings in clinical practice, it has been found that the predominant barriers identified are related to the organization and inadequate systems for professional and personal development<sup>7-9</sup>.

Several studies have revealed that many nurses are experiencing difficulties in separating the activities involved in each step of nursing process<sup>3, 10</sup>. Traditionally there are five basic steps in nursing process which include: assessment, diagnosis, planning, implementation and evaluation. According to Lemone, Lillis & Taylor<sup>11</sup> the steps are mostly used in cyclic manner, they are not discrete, and they are interrelated and interdependent. In a study conducted by Lee<sup>3</sup>, on factors affecting the use of standardized nursing care plans, he found out that nurses tend to match patient conditions to the designated nursing diagnosis, but are unfamiliar with statements of related factors and use of objective data to describe patient conditions. Lee enumerated that nurses' ignore descriptions of nursing goals, dutifully check interventions without always executing them, and choose the same evaluation to meet hospital requirements.

### **Theoretical Framework**

The theoretical framework of choice for this study is self efficacy belief. Self efficacy influences choice of activities and motivational level, and contributes to the acquisition of knowledge and refinement of new abilities<sup>13</sup>. Self efficacy also influences individual judgments, efforts, resilience, life choices and perseverance in the face of difficulties. Individuals formulate self efficacy beliefs primarily from four sources of information which are: enactive mastery experiences, vicarious experience, verbal persuasion, and physiological and affective states<sup>12</sup>. An extensive literature demonstrates that health interventions incorporating self efficacy principles result in better treatment outcomes than interventions that are not based on the self efficacy framework. When self efficacy is high, then people put forth more effort, set higher goals, and persevere through obstacles. Manojlovich<sup>13</sup> examined the relationship among structural empowerment, nursing leadership, and self-efficacy and its effect on nursing practice. This non-experimental study used path analysis to demonstrate both direct and indirect relationships; mediation was evaluated using Sobel's tests. The results indicated that self efficacy partially mediated the relationship between structural empowerment and professional practice behaviors. Sobel's tests were significant when self-efficacy mediated the relationship between structural empowerment and professional practice behaviors in the group that perceived strong nursing leadership.

This study suggests that nurse managers can provide opportunities for enhancing nurses' self-efficacy through role modeling and verbal persuasion. Self-efficacy has emerged as an essential concept in developing and implementing health promotion programs in advanced-practice nursing. Mentoring was identified as a strategy for promotion of self-efficacy in advanced nursing practice in clinical education for nurse practitioners<sup>14</sup>. In graduate nursing education, a short-term clinical preceptorship often is required; however, Hayes showed that a long-term commitment for preceptors in a mentor role can be an effective model for student learning and for increasing the student's self efficacy as a nurse practitioner.

A study conducted by O'Farrell, Ford-Gilboe, and Wong<sup>15</sup> focused on the evaluation of an advanced health assessment course for acute care nurse practitioners using a pre- and post course evaluation based on Bandura's self-efficacy theory. From the pre to posttest there were significant increases in health assessment skills, confidence in performing these skills, and confidence in recognizing abnormal health findings. Ngo and Murphy<sup>16</sup> applied Bandura's self-efficacy theory as an educational intervention for peripherally inserted central catheter (PICC) devices and hypothesized that increasing nurses' knowledge and self-efficacy related to PICCs would have a positive effect on patient outcomes related to decreasing occlusion and infection rates. The results of this study showed an increase in nurses' knowledge and self-efficacy related to PICC care following the intervention, as well as a significant reduction in PICC occlusion rate, from 29% to 8.5% over a 6-month period. Dilorio and Price<sup>17</sup> developed an instrument for assessing nurses' perceived self-efficacy in implementing a variety of neuroscience nursing tasks.

The instrument was used to assess changes in perceived self-efficacy of 54 nurses who attended a 6- to 10- month neuroscience nurse-internship program. Self efficacy measures were assessed during clinical orientation, prior to the beginning of the program, and at the end of the program. The results indicated that the nurses' confidence in performing a variety of neuroscience nursing skills increased during the program. The instrument was also helpful in identifying skills that nurses would benefit from during the program. Consequently, the structure of the internship was revised to meet the educational needs of the nurses. In relation to the present study, self efficacy as described would influence choice of activities such as the use of nursing process in the clinical settings and increase the motivational level of its usage among nurses, thereby making nursing process a desired systematic tool for patient care. It can be deduced that when self efficacy increases, attitude towards the use of nursing process will increase.

### **Significance of the Study**

It is imperative that the factors that influence the utilization of the nursing process in Ogun State, Nigeria be determined so as to form the yardstick for providing solutions that will enhance the utilization of the nursing process in the clinical practice of nurses in the part of Africa that is of the concern to the researchers. This study provides insight to the setbacks and obstacles that becloud the nurses from practicing with their trademark of autonomy: the nursing process.

### **Objectives of the Study**

This study was aimed at identifying the influence of personal, institutional, and professional factors on the utilization of the nursing process in selected hospitals in Ogun State, Nigeria.

### **Research Hypotheses**

- Nurses' personal factors such as knowledge and attitude influence the utilization of the nursing process in Ogun State, Nigeria.

- Professional factors influence the utilization of the nursing process in Ogun State, Nigeria.
- Institutional factors influence the utilization of the nursing process in Ogun State, Nigeria.

## **MATERIALS AND METHODS**

A cross sectional study design was used whereby all participants completed a questionnaire at a single point in time. A quota sampling method was used to enroll a total of 125 nurses from three hospitals which are of the three categories of the health care institutions in Nigeria i.e. one general hospital, one teaching hospital, and one private hospital. Each of these hospitals was assigned quota representation in relation to the number of nurses working in the hospital. Data collection was between June and August, 2013.

A questionnaire which had four sections was used to collect data from each participant. Section A was the demographic section, respondents had to tick in the appropriate boxes that had the best option that described their profile. Section B measured personal factors emanating from the individual nurse, personal factors was sub-divided into knowledge of the nursing process, and attitude towards the nursing process. Personal factors as described above takes its definition from the self efficacy belief theory, which propounds that these factors influence individual choice of activities and motivational level. Section C measured the professional factors emanating from the standards of the nursing profession, the self efficacy belief theory propounds a positive relationship between professional standards in education and practice and individual choice of activities and motivational level to refine new activities. Section D measured the institutional factors emanating from the health facility where the nurses work, the self efficacy theory identifies this factor to include nurses' managers providing opportunities for enhancing self efficacy through role modeling and verbal persuasion. Respondents had to tick yes or no, on statements that described the factors afore mentioned in sections B to D. Face and content analysis was used to validate the instrument. Experts in research evaluation and senior colleagues scrutinized the instrument.

To establish the reliability of the instrument, a pilot study was conducted among nurses working at the Primary Health Centers in the locality who were not part of the population to be studied. The questionnaire showed a reliability coefficient of 0.725 which was considered satisfactory. The data was analyzed using the statistical package for social sciences version 15.0 SPSS, the data was measured on a scale of 0-1 then each factor segment was multiplied by the number of questions found in that segment and the result scores was then used for analysis and correlation coefficient ( $R^2$ ) calculated to test the hypotheses.

## **RESULTS AND DISCUSSIONS**

The analyses show the characteristics of the sample as follows; 92% were female nurses while 8% were males, 35% of the respondents were between 41-50 years old, while 12.8% were 51-60 years old. 82% of the respondents had their highest educational attainment as RN/RM, 93% of the respondents have knowledge of nursing process during their basic or foundational education in nursing as RN/RM, 28% of the participants were at the senior nursing officer cadre of service, 5% of them which was the least percentage were at the Assistant chief nursing officer level. 48% of the nurses had spent more than 5 years on the ward where they were studied, while 43.2 of the nurses had spent less than 5 years on the wards where they were studied.

The variables analyzed were assigned the following numbers for identification;

- A. Independent variables- i) Personal factors specific to knowledge of the nursing process
- Personal factors specific to nurses' attitude towards the nursing process
  - Professional factors related to training and curriculum for nurses, which include the nursing process
  - Institutional factors related to resource mobilization to support the nursing process
- B. Dependent variables- v) Utilization of the nursing process in the practice of nursing care

Table 1 below, is a presentation of the analysis of the data, reflecting the variables as numbered for identity.

**Table 1: Variables Measured, Numbered as Shown Above and Correlation Coefficient with Utilization of Nursing Process**

Variables	Max. Stat. Mean	Mean Stat.	SD	SEM	Utilization	Level of Significance
i	10	7.38	1.18	0.11	0.012	p = 0.447
ii	20	16.17	3.13	0.28	0.198	p = 0.014
iii	20	15.54	3.45	0.31	0.404	p = 0.000
iv	16	11.33	2.75	0.25	0.41	p = 0.000
v	3	2.48	0.82	0.073		

Model Summary  $R^2 = 0.313$ ,  $p = 0.894$

### Hypothesis One

Analysis of the findings demonstrated that the nurses' personal factors specific to knowledge of the nursing process did not significantly  $R^2 = 0.012$ ,  $p = 0.447$  influence the use of nursing process. This may be because all nurses are assumed to have attained a high level of understanding of the nursing process and can adequately apply the nursing process given the right working conditions. Though the influence of the nurses' personal factors specific to nurses' attitude to the use of the nursing process in patient care shows a weak relationship, this is consistent with the works of Lee<sup>3</sup>, Thomas and Newsome<sup>10</sup> who identified the personal factors that influence the nursing process as the proper understanding and application of the steps of the nursing process in the care of patients. They also found out that these factors play out well when the health institution provides the right working conditions.

### Hypothesis Two

Professional factors had a strong correlation with the utilization of the nursing process  $R^2 = 0.404$ ,  $p = 0.000$ . Based on the findings, the professional authority, which is the nursing regulatory body influence the utilization of the nursing process by instituting policies and regulations that mandate health institutions and nurses to use the nursing process in the care of patients as the minimum standard. There should be sanctions to institutions following inspection of those institutions that have not yet started the use of the nursing process. These facts are supported by the International Council of Nurses<sup>6</sup> recommendation that, nurses are professionally obliged to provide care based on the best available research evidence in practice and be accountable for providing the best possible care, and the nursing process is the evidence-based standard of care.

### Hypothesis Three

Institutional factors showed a strong correlation with the utilization of the nursing process  $R^2 = 0.410$ ,  $p = 0.000$ .

According to this study, health institutions or organization influence the use of nursing process. This is synonymous with the studies of Nilsson et al.<sup>7</sup>, Mc Caughan et al.<sup>8</sup> and Mc Cleary & Brown<sup>9</sup>, who found that the predominant barriers identified are related to the health organization. The health organization or institutions have to put in place a machinery to effectively utilize the nursing process, by looking at the factors that heavily influence it as emanating from the health institution such as; workload for the nurses, availability of stationeries, and utilization of information technology to improve the quality of care. The role of administration is important and vital in providing support in several ways as identified by the respondents. Administration must display their interest and belief in the value of nursing process. They need to support nurses in additional preparation to create a positive environment for delivering best practice.

In presenting the model summary which is the combination of all the independent variables, compared with the dependent variable, a strong correlation exists ( $R^2 = 0.313$ ,  $p = 0.000$ ). This shows that combining all the independent variables, predicts the utilization of the nursing process better than personal factors specific to knowledge and attitude alone.

### **Implications for Nursing Practice**

This study will enable the management of health institutions to know that there is need to encourage nurses to attend seminars that will focus on the use of nursing process. Hospital wards should be adequately staffed with nurses to prevent the excuse of staff shortage as a factor responsible for inconsistent use of nursing process. Without the use of our unified language, patient care will be jeopardized and causalities may result. Strategies for combining theory and practice include the use of nursing process as a standardize representation. Strong advocates for nursing should be present in debates about the institutional policies related to the use of nursing process.

### **CONCLUSIONS AND RECOMMENDATIONS**

The nursing process is the bench mark for nursing care, and nurses should in this time of globalization be used in the care of patients. Personal factors emanating from the individual nurses can be improved by continuing education in the contextual use of the nursing process. Healthcare institutions should have available information technology to boost the utilization of the nursing process, provide stationeries, increase manpower, and consistently review the workload of nurses. Professional authorities of nurses are to rise up to the challenge of enforcing the use of the nursing process in the care of patients, establish regulatory committees to review compliance to utilization of the nursing process, and sanction defaulting institutions for falling below the minimum standard.

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