

Nurses' Knowledge, Attitude And Perceived Barrier Towards The Implementation Of Nursing Process At A General Hospital In Lagos State, Nigeria

Chiamaka Ogechi Anyasor

Department of Mental Health and Psychiatry, School of Nursing, Babcock University, Ogun State Nigeria

Alowolodu Oluwatoyin

School of Nursing, Babcock University

Abstract: *The use of nursing process in practice is the core essence of professional nursing. However its implementation in low and middle income countries is poor. This study aims to evaluate Nurses' knowledge, attitude and perceived barrier towards the implementation of nursing process at a general hospital in Lagos State, Nigeria. This is a descriptive research design which utilized quota sampling method to recruit 110 nurses who are active and currently in service. Ethical approval as well as consent of participants was obtained. Questionnaires were used to obtain information from the respondents. Data was analyzed using Statistical Package for Social Sciences (SPSS 17.0. version). Inferential statistics of chi-square was used to test study hypothesis. Study findings revealed that nurses have good knowledge of nursing process; however its use in practice is within average level. Also both positive and negative attitude was identified. Some perceived barriers which hindered nursing process implementation among nurses included those identified within institutional factors, knowledge and experience factor, demographic factors, social and cultural factors. There is need to intensify seminars and workshops organised on nursing process in order to enhance nurses' knowledge on the use of nursing process. Appropriate measures should be put in place for constant evaluation of knowledge gained as well as its implementation.*

I. BACKGROUND OF THE STUDY

The use of nursing process in clinical practice has been recognized and accepted as an essential framework used to enhance the quality of care rendered to patients (Habermann, 2006; Pokorski, et al., 2009; Afolayan, et al., 2013). Based upon its scientific method, technologies and assumptions, the nursing process helps to promote reflective practice, critical thinking and creativity, and also facilitates problem solving in clinical practice (Pullen, 2005; Hagos, et al., 2014; Akpan-idiok, et al., 2017). Also, it serves as a building block for other models and safe practice (Alfaro-LeFevre, 2016).

Nursing process is "an organized sequences of problem solving steps used to identify and to manage the health problems of clients" (Barbara, 2009). It entails the provision of a client-centered care in an orderly manner. In addition, the nursing process guides nursing care and procedures (Pokorski, et al., 2009). Nursing process attempts to exemplify evidence-

based practice (Ledesma-Delgado & Mendes, 2009) which epitomizes professional nursing. Its application in practice is core to the essence of professional nursing (The American Nurses Association, 2009). The effective implementation of nursing process improves outcome of care given, and also stimulate the construction of theoretical and scientific knowledge based on the best clinical practice (Pokorski, et al., 2009). Also it enhances effective communication among caregivers which in turn facilitates continuity of care (Afolayan et al 2013).

Despite its universal adoption as a framework for delivering quality nursing care, its daily implementation in most health settings in middle and low income countries is poor (Mahmoud & Bayoumy, 2014). It is perceived as a challenging and difficult process which consumes too much time for complete and proper documentation (Potter & Perry, 2007), in its entire six phases which are related to one another. Other barriers towards the implementation of nursing process

includes: high patient turn over, poor nurse-patient ratio, and lack of equipment and supplies (Potter & Perry, 2007); lack of knowledge, perception and nurses' exposure in the use of nursing process (Hagos et al. 2014; Mahmoud & Bayoumy, 2014). More so, it is observed that factors such as age, years of work experience, religion and cultural belief could hinder the implementation of nursing process.

Irrespective of these factors identified, the effectiveness of any health care system depends partly upon the quality of nursing care rendered to clients (Akpan, et al. 2017). Hence, nurses play major role in enhancing patients' satisfaction by improving the quality of care given (Afolayan, et al., 2013). Through the use of nursing process, nurses conform to the accepted standards of global best practices (Barbara, 2009). Therefore this study was aimed at evaluating Nurses' Knowledge, attitude and perceived barrier towards the implementation of nursing process at a general hospital in Lagos State, Nigeria. Also, it hopes to determine if nurses' level of education would be significantly associated to their knowledge of nursing process as well as their application of nursing process.

TEST OF HYPOTHESIS

- ✓ There is no statistical difference between participants' level of education and knowledge of nursing process (I have an adequate understanding of nursing process).
- ✓ There is no statistical difference between nurses training on nursing process and application of nursing process in practice (I have developed and used nursing process to care for my client in the last one week).

II. METHODS

This is a descriptive, quantitative survey designed to ascertain the knowledge, attitude and perceived barrier of nurses at Isolo general hospital towards the utilization of nursing process in nursing practice. Due to shortage of manpower at Isolo general hospital, quota sampling technique was used to recruit all nurses (110) for the purpose of this study. After obtaining ethical approval from Babcock University Health and Research Ethical Committee (BUHREC) as well as written consent from the participants, questionnaires were administered to them. Guideline on how to complete the questionnaire was explicitly explained and participants were instructed to tick as appropriate. Content and face validity of the questionnaire was ensured by thorough review of available literature and vetting by experts in the field. Data was analyzed using Statistical Package for Social Sciences (SPSS 17.0. version). Inferential statistics of chi-square was used to test study hypothesis with the p-value set at 0.05. Result findings were presented using frequency tables and percentages.

III. RESULTS

A total number of 110 questionnaires were administered to respondents; however only 105 completely filled questionnaires were retrieved and analyzed.

(n= 105)

VARIABLES	FREQUENCY (N)	PERCENTAGE (%)
Age: 21-30	33	31.4
31-40	26	24.8
41-50	45	42.9
Above 60	1	0.95
Gender: Females	103	98.1
Males	2	1.9
Marital Status:	95	90.5
Married	10	9.5
Single		
Level Of Education:	10	9.5
Diploma (RN only)	69	65.7
Diploma (RN/RM)	25	23.8
BSC	1	0.95
MASTERS		
Rank: Senior Nursing Officer	13	12.4
Nursing Sister	6	5.7
Nursing Officer I	7	6.7
Nursing Officer II	9	8.6
SNS	10	9.5
Matron II	18	17.1
Matron I	22	21
Assistant Chief	12	11.4
Chief Matron	8	7.6
Years in Service:	21	20
Below 5	33	31.4
5-10	31	29.5
10-15	10	9.5
15-20	10	9.5
Above 20		

RN= Registered Nurse; RM= registered midwife; BSC= Bachelor of Science degree

Table 1: Demographic distribution of the participants

Table 1 above shows that 45 (42.9%) respondents are within the age of 41-50 while 1 (0.95%) respondent was above 60 years. Most of the respondents are females 102(98.1%) while 2 nurses (1.9%) are males. 95 (90.5%) are married while 10 (9.5%) are singles. More than half of the respondents (65.7%) are both registered nurse and midwife while only 1 (0.95%) respondent has a master's degree. 22 (21%) respondents are in the rank of Matron I while only 6 (5.7%) respondents are Nursing sisters. 33 (31.4%) respondents have been in service for 5- 10 years in service while 10 (9.5%) respondents have spent 15-20 years and over 20 years respectively in active service.

(n=105)

Statements	YES		NO	
	Frequency (F)	Percent age (%)	Frequency (F)	Percent age (%)
I have received training on the nursing process	105	105	0	0
I have an adequate understanding of nursing process	70	66.7	35	33.3

Nursing process is a foundation of nursing practice	89	84.8	16	15.2
The nursing process has six steps	85	81	20	19
The steps of nursing process are related to one another	90	85.7	15	14.3
It is important to complete all steps of nursing process	86	81.9	19	18.1
Nursing process is continuous till discharge	90	85.7	15	14.3
Nursing process is a legal document	100	95.2	5	4.8
I have developed and used nursing process to care for my client in the last one week	65	61.9	40	38.1

F= frequency; %= percentage

Table 2: Participant's responses on Knowledge and use of Nursing Process

Table 2 above reveals participants knowledge and use of nursing process. All the respondents (100%) agreed that they have been trained on nursing process, nevertheless, only 70 (66.7%) respondents claimed that they have adequate understanding of nursing process. 89 respondents (84.8%) agreed that nursing process is a foundation of nursing practice. 85 respondents agreed that the nursing process has six steps, whereas 90 respondents (85.7%) agreed that the steps of nursing process are related to one another. 86 respondents (81.9%) agreed that it is important to complete these steps. 90 respondents (85.7%) agreed that nursing process is continuous till discharge. Additionally, 100 respondents (95.2%) agreed to the statement that nursing process is a legal document; nevertheless, only 65 respondents (61.9%) have been able to develop and use a nursing process in providing care for their client in the last one week.

(n=105)

Statements	Strongly Agree		Agreed		Strongly Disagree		Disagree	
	F	%	F	%	F	%	F	%
It is important to use nursing process in practice	83	79	22	21	0	0	0	0
I am willing to apply nursing process in the care of my patient	60	57.1	45	42.9	0	0	0	0
I will prefer to be left out of nursing process	5	4.8	19	18.1	44	42	37	35.2
Application of nursing process should be left to degree nurses	16	15	4	3.8	55	52.2	30	28.6
Application	51	48.6	24	22.9	19	18.1	11	10.5

Items	F	%	F	%	F	%	F	%
n of nursing process improves patient outcome								
Applying nursing process makes no difference in patient recovery	27	25.7	11	10.5	43	41	24	22.9
I am convinced that nursing process is effective in patient care	57	54.3	33	31.4	5	4.8	10	9.5
The nursing process enable me to provide quality care	51	48.6	36	34.3	7	6.7	11	10.5
Nursing process is difficult to perform	8	7.6	14	13.3	39	37.1	44	41.9

F= frequency; %= percentage

Table 3: Respondents attitude towards the use of nursing process

In table 3 above, more than half of the respondents (79%) strongly agreed that nursing process plays an important role in practice. 60 respondents (57.1%) strongly agreed that they are willing to apply nursing process in the care of their patients. Nonetheless, 44 respondents (42%) strongly disagreed that on the statement that they will prefer to be left out of nursing process. Also 55 respondents (52.2%) strongly disagreed that the application of nursing process should be left to baccalaureate nurses. 51 respondents (48.6%) strongly agreed that application of nursing process improves patients outcome while 43 respondents (41%) strongly disagreed that applying nursing process makes no difference in patient recovery. In addition, 57 respondents (54.3%) strongly agreed that nursing process is effective in providing care to patients, 51 respondents (48.6%) strongly agreed that nursing process enables them to provide quality care where as 44 (41.9%) disagreed on the statement that nursing process is difficult to perform.

(n=105)

Barrier s	Items	Strongly Agree		Agree		Strongly Disagree		Disagree	
		F	%	F	%	F	%	F	%
Institutional factors	Inadequate nursing staff	72	68.6	26	24.8	5	4.8	2	1.9
	Excessive workload	65	61.9	30	28.6	3	2.9	7	6.7
	Non availability of materials for docume	49	46.7	40	38.1	7	6.7	9	8.6

	ntation								
Knowledge and experience factors	Poor knowledge of nursing process	46	43.8	44	41.9	10	9.5	5	4.8
	Lack of supervision by senior nurse	44	41.9	40	38.1	13	12.4	8	7.6
	Staff inexperience	47	44.8	38	36.2	9	8.6	11	10.5
	Time constraint	48	45.7	32	30.5	16	15.2	9	8.6
	Applying nursing process require tedious documentation	34	32.4	36	34.3	14	13.3	21	20
Demographic factors	Staff academic qualification	37	35.2	39	37.1	20	19.0	9	8.6
	Years of experience in nursing practice	34	32.4	40	38.1	16	15.2	15	14.3
Social factors	Influence of nursing peers	29	27.6	21	20	37	35.2	18	17.1
	Family influence	28	26.7	16	15.2	34	32	27	25.7
Cultural factors	Traditional or cultural belief	9	8.6	18	17.1	55	52.4	23	11.5
	Religion	5	4.8	9	8.6	47	44.8	44	41.9

F= frequency; %= percentage

Table 4: perceived barrier towards the implementation of nursing process

Table 4 above reveals participants' responses on barriers towards the implementation of nursing process. Institutional factors such as inadequate staffing of nurses (68.6%) and excessive workload of nurse (61.9%) was indicated as major barriers that hinders the implementation of nursing process. Non-availability of materials for documentation accounted for 46.7% strongly agreed responses while 6.7% strongly disagreed.

On the aspect of knowledge and experience of nurses, factors perceived to serve as a barrier to application of nursing process includes: poor knowledge of nursing process (43.8%), lack of supervision by senior nurses (41.9%), nursing staff inexperience on the use of nursing process (44.8%), time constraint (45.7%) and tedious documentation (34.3%).

Staff academic qualifications (37.1%) and years of experience in nursing practice (38.1%) were among the factors identified under the demographic section.

Among the social factors identified, 29 (27.6%) respondents strongly agree on the influence of nursing peer while 37 (35.2%) respondents strongly disagreed. Also 28 respondents (26.7%) strongly agreed on influence of family members while 34 respondents (32%) strongly disagreed.

Furthermore, 55 respondents (52.4%) strongly disagreed that the nurses' traditional or cultural beliefs would not serve as a barrier towards implementation of nursing process where as 9 respondents (8.6%) strongly agreed. Also 44 (41.9%) respondents disagreed that religion is not a barrier while 5 respondents (4.8%) agreed that it is a barrier towards the implementation of nursing process.

(n=105)

ITEMS	Strongly Agree		Agree		Strongly Disagree		Disagree	
	F	%	F	%	F	%	F	%
Adequate supply of nursing process materials	64	61	32	30.5	6	5.7	3	2.9
Motivation of nurses	65	62	36	34	3	2.9	1	0.95
Employing more nurses	66	62.9	35	33.3	0	0	4	3.9
Encouraging more cooperation among nurses	60	57.1	36	34	5	4.8	4	3.9
Regular supervision by ward leaders	53	50.1	44	42	1	0.95	7	6.7
Theoretical and practical training should be organized	59	56.2	35	33.3	0	0	11	10.5

F= frequency; %= percentage

Table 5: Responses on measures to promote implementation of nursing process

Table 5 above shows participants responses on various measures which could be adopted in order to promote the implementation of nursing process. Measures include: employing more nurses (62.9%), motivating nurses on the use of nursing process (62%); adequate supply of relevant materials used in nursing process (61%), encouraging cooperation among nurses (57.1%), organizing training on the use of nursing process (56.2%) and regular supervision of nurses by ward leaders (50.1%).

Level of education	Knowledge of nursing process		Chi-square	P value
	Yes	No		
Diploma (Registered Nurse only)	4	6	11.96	0.0075
Diploma(Registered Nurse/Midwife)	42	27		
Bachelor of Nursing	23	2		
Masters of Nursing	1	0		

Table 6: Chi-square analysis between level of education and knowledge of nursing process

Findings from table 6 above revealed that a statistical difference exists between level of education and knowledge of nursing process since the chi-square value is greater than p-value at degree of freedom of 3. This depicts that nurses level of education serves as a major barrier towards the implementation of nursing process.

IV. DISCUSSION

Nursing process is globally recognized and accepted as a scientific method used to guide procedures and provide quality

nursing care (Pokorski, et al., 2009). However, poor use of nursing process in providing quality care to patients has been observed in most healthcare facilities (Mahmoud & Bayoumy, 2014). In this present study, knowledge, attitude and perceived barrier of nurses towards the implementation of nursing process was assessed. Additionally, study identified various measures which could be adopted in promoting the use of nursing process.

Study findings revealed that the knowledge of nursing process among the participants is good as positive responses were obtained in almost all the items on knowledge of nursing process. Although all the respondents (100%) claimed to have received training on the use of nursing process, however, only 66.7% said that they have an adequate understanding of nursing process. Nevertheless, the application of nursing process in practice is on the average as only 61.9% have been able to develop and use a nursing process in providing care for their client within the last one week of date at which data was collected. This result finding is similar to a study carried out at a teaching hospital in Calabar, Cross-Rivers State, Nigeria, which observed that nurses have good theoretical knowledge of nursing process (Akpan-idiok, et al., 2017) even though it is yet to be fully translated into practice (Afolayan, et al., 2013). Inadequate application of nursing process could be based on the evidence that most of the senior nurses in the clinical setting who are expected to guide and nurture the junior nurses on the use of nursing process would rather prefer to give traditional nursing care instead of utilizing the nursing process (Hagos, et al., 2014).

On the aspect of nurses attitude towards the use of nursing process, both positive and negative attitude were observed. More than half of the respondents strongly believed that nursing process plays an important role in practice; hence they are willing to apply nursing process in the care of their patients because it enabled them to provide quality care which in turn improved the outcome of care. However, only a few number of respondents demonstrated a stronger opinion on continuity of care utilizing the nursing process. Perhaps this could be attributed to the idea that nursing process is viewed as a foreign concept and culture which is yet to be translated into African context and culture (Mason & Attree, 2007). Also, from this study, it was deduced that the application of nursing process in clinical practice seems to be viewed by some nurses as the sole responsibility of a baccalaureate nurse than those nurses who have obtained a diploma certificate and also certified as registered nurse or registered midwife or both. Nevertheless, nurses are supposed to exhibit positive attitude towards the implementation of nursing process as poor attitude of nurses could lead to poor quality in outcomes of care (Mahmoud & Bayoumy, 2014).

The barriers that hindered the implementation of nursing process as shown in table 4 above include various challenges as identified from institutional factors, knowledge and experience factor, demographic factors, social and cultural factors. Institutional factors such as inadequate staffing of nurses, excessive workload of nurse and Non-availability of materials for documentation among others has been observed to affect the practice of nursing process in some hospitals in Nigeria (Chud-oji, 2013; Akpan-idiok, et al., 2017). Thus to ensure effective implementation and sustenance of nursing

process, hospital authorities must collaborate with practicing nurses in terms of stationary supplies, finance and personnel because documentation of clients care plan demands some reasonable amount of time (Akpan-idiok, et al., 2017). Also there is need to enlighten the hospital management personnel's on the benefits of nursing process with regards to outcome of care as such actions will enhance regular and adequate supply of materials for implementation of nursing process (Afolayan, et al., 2017).

Inadequate knowledge and poor understanding of nursing process, time constraint and lack of supervision were also identified as factors which could hinder the use of nursing process. This is in line with the observations made by Hagos, et al., 2014, who recommended that hospitals as well as nurses should seek out ways to upgrade the nurses' knowledge on nursing process and its application. Such actions taken to enhance knowledge of nurses should also ensure that other measures are put in place for periodic assessment and evaluation of training given.

Demographic characteristics such as academic qualifications i.e. level of education and years of experience in nursing practice were identified as factors which could hinder nursing process implementation. This is similar to the findings of Mahmoud & Bayoumy, 2014. Their study observed that nurses' level of education was statistically associated with knowledge of nursing process. More so, nurses' lack of previous experience as regards to the nursing process lead to the resistance of its application as nurses may think that its implementation in practice demands a complex and rigorous processes which is often time consuming and not feasible (Brandalize & Kalinowski, 2005).

There seem to be dearth in the number of published studies which assessed the socio-cultural factors affecting the implementation of nursing process. Nevertheless, this present study has shown that peer and family influence as well as traditional belief and religious background of the nurse could pose as a hindrance to the implementation of nursing process. This suggests the need for more studies to be carried out on this aspect.

Some measures identified to promote the implementation of nursing process in practice included: reducing the overbearing workload of nurses by employing more nursing staff, adequate supply of relevant materials used in nursing process, and organizing workshops and trainings on the use of nursing process. During these trainings, cooperation among nurses as regards the use of nursing process should be solicited as nurses who are unwilling to utilize the nursing process could leave it unattended thereby adding more stress on other nurses in subsequent shifts. Hence nurses should be continuously motivated on the use of nursing process. This research finding is in agreement with Akpan-idiok, et al., 2017. Furthermore, regular supervision of nurses by their ward leaders and head nurses should be ensured. Appropriate supervision of nurses on the use of nursing process can enhance its utilization.

There is an implication of findings to nursing practice. Nursing process is vital in the core of professional nursing practice. Therefore, workshops and seminars should be quarterly organised on the nursing process and measures put in place to evaluate its use in practice. Nurses should be

interested in self and professional development through reading, continuing education and attending workshops. Additionally, Nurses should be encouraged and motivated to utilize nursing process in order to yield quality outcomes of care given.

V. CONCLUSION

This study assessed the knowledge and attitude of nurses towards implementation of nursing process. Findings of this study has shown that nurses working at Isolo general hospital have good knowledge of nursing process, however it is not well utilized. Also positive and negative attitude towards the use of nursing process was observed. Major factors which hindered the implementation of nursing process included inadequate staffing, excess workload, non-availability of materials, time constraint, inadequate knowledge and lack of experience on application of nursing process as well as lack of supervision by senior nurses. Hence it is important that workshops and seminars on the use of nursing process should be organised in order to enhance nurses' knowledge on the nursing process. This will in turn correct the negative attitudes observed and also equip them with passion to render quality care to their clients using the nursing process.

VI. RECOMEDATIONS

Based on the findings of this study, it is recommended that the Nursing and Midwifery Council of Nigeria (NMCN) should intensify seminars and workshops on nursing process in order to update nurses' knowledge on the use of nursing process. Hospital management should ensure regular supply of nursing process materials. All nurses should be mandated to utilize the nursing process in rendering care to their patients. Any nurse who falters in utilizing the nursing process should be penalized. Additionally, Government should employ more nurses to ensure an adequate nurse patient ratio of one nurse to five patients. All ward managers should ensure adequate and effective supervision of nursing process implementation. Further study should be carried out on experience and views of nurses towards the use of nursing process.

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