

Development and Validation of a Nursing Care Documentation Model

Kenneth Belibodei Wasini¹, Ijeoma Okoronkwo²

¹Department of Medical-Surgical Nursing, Faculty of Nursing Sciences, Niger Delta University, Wilberforce Island, Bayelsa State, Nigeria

²Department of Nursing Sciences, Faculty of Health Sciences and Technology, University of Nigeria, Nsukka

¹k.wasini @ yahoo.com, ²ijeoma.okoronkwo @ unn.edu.ng

Abstract- The study was conducted to develop and test a nursing documentation format that will capture nursing activities in real time basis. Specifically, it was aimed at developing appropriate components, appropriate contents for the components, determining content validity and reliability of the nursing care documentation format, and determining the perception of the user-friendliness of the nursing care documentation model. The Action research design was adopted for the study involving 122 nurses working in medical and surgical units of the study areas. Two researcher- developed instruments (ADIE model and questionnaire) were used for data collection. The questionnaire retrieved and analysed were 81 which constituted the sample. Scores were analysed using mean and standard deviation while validity and reliability of model was done with checklist that was graded. All the participants agreed that the model was adequately developed in design and contents: They also agreed that the model clearly stated the information they needed for documentation. The result also showed that the model was valid and reliable. Majority (80.2%) preferred the proposed model to the nursing booklet in use in the hospitals. However, 47.9% said that the columns were not enough to document care. It concluded that nurses desire to have their patient care completely documented. It is therefore recommended that nurses should be sensitized in documenting their care via simplified documentation formats and hospital managements should adopt this model for use in patient care.

Keywords: Documentation format; Hospital; Documentation of nursing care; Nursing care; Documentation model, Bayelsa State

Abbreviations

ADIE: Assessment, Diagnosis, Intervention, Evaluation.

I. INTRODUCTION

Patient care is a complex and multifaceted process. It involves many people and professionals whose activities may vary, overlap but convergent towards an individual or a family in order to solve problems and help to achieve integration of the whole being or optimal level of wellness. However, all the care providers are not always present at each contact with client to know what care was provided or not. This, no doubt creates a situation where the client can suffer from overdose, under dose or neglect of some activities. One way to avoid this anomaly is through documentation.

Documentation or record keeping is a composite part of the total patient care process ¹. It represents and reflects the events around and about the patient; showing the diligence of the staff in planning and rendering care to the client, and the outcome of interventions ². Contents in a medical record are

relied upon by physicians, nurses, and physician assistants (which group are called physician assistants) to plan, implement, and evaluate their patient's course of treatment, continuity and safety of care, compliance to set standards and overall quality of health care providers that is rendered ^{3, 4}. Therefore, without proper and adequate documentation, health care is compromised ^{5, 6}. However, documentation has been identified as a major problem in the nursing care of patients. Nursing documentation quality is endlessly criticized by professionals, community, and regulatory organizations because of myriads of observations ⁷; including poor planning of care, incomplete admission records, inconsistent/lack of documented care planning, failing systems of communication, poor time management, etc. These documentation problems create practical and legal problems for nurses and use of multiple charts and repetitive recording practices is blamed as a main cause ⁸. In order to address the challenges, the concept of nursing process in which the nursing care plan resides was introduced ⁹. It is considered the best modality to providing the much desired comprehensive care ¹⁰.

Nursing process requires proper documentation of assessment data, which serves as a basis for formulating nursing diagnosis and evaluating the progress of patient towards recovery. Nursing diagnosis in turn serves for development of a care plan that would guide all nurses in caring for the client. The care provided and the client's response to it is also expected to be documented in the patient's record. Nevertheless, ineffective or non-utilization of the nursing process due to various reasons is widely reported. Care plans are not quite patronized because they are paperwork-oriented, not patient-centred, and unfriendly in content design, and time-consuming ^{11, 12}. Practising nurses do not value care plans because they are seen as best for learning the nursing process in schools ¹³.

Based on the above, it is reasonable to assert that the views and opinions may not be unconnected with the way nursing documentation systems are designed. Moreover, literature notes that variations in systems of documentation can affect nursing practice and patient outcome by creating tension in the nurse between patient care needs and hospital management-promoted documentation rules ¹⁴. Consequently, institutions, individuals and groups have continued to develop or modify their documentation systems to formats that are structured, semi-structured or unstructured in order to capture every aspect of patient care, yet the desired accuracy and

comprehensiveness of patient care documentation has not been met due to reported poor user-friendliness of such formats¹⁵ which also bear a risk of reducing the expression of clinical judgment that may lead to automated rituals⁷. The existence of these opinions portray a lack of adequate documentation of nursing care, thus there is need to review the documentation approach for better implementation¹⁶. Moreover, literature mentions that some locally developed documentation tools enjoyed reasonable acceptance and improved the documentation practice as well as overall patient care more than 60%¹⁷.

Premised on the above, this study sought to develop and test an indigenous documentation model based on the nursing process and care plan. The study is also strongly influenced by anecdotal reports that the nursing process format (a booklet) being used in the study setting is designed for patients first contact assessment and nursing care plan development. It does not provide for subsequent on-going, minute by minute, on-the-spot assessment of the patient to capture the changing condition of the patient in order to make appropriate diagnoses and interventions. This creates a situation where nursing diagnosis that was made during admission is maintained for days without recourse to changes in the patient, thereby misrepresenting the actual patient's condition. On the other hand, although nurses attend to the patients daily, the assessment data, nursing diagnoses that are identified and solved may not be documented; representing incomplete documentation that would compromise patient safety⁷.

II. PURPOSE OF STUDY

The purpose of this study was to develop and validate a nursing care documentation format that will be in the patients' folder which will induce nurses to write down their actual findings and actions on-the-spot for the use by all members of the health team.

III. OBJECTIVES

1. To develop appropriate components for the nursing care documentation model
2. To develop appropriate contents for the components of the proposed model
3. To determine the content validity and reliability of the nursing care documentation format
4. To determine the perception of the user-friendliness of the nursing care documentation model

IV. LITERATURE REVIEW

Development and validation of models is often based on literature. Models and theories are fundamental to guide the conceptual framework. For an instrument of nursing documentation to be adequate, the development should rely on published studies, legislations cum professional requirements, and depict quality nursing documentation by revealing three criteria: documentation structure and format, documentation process, and, documentation content¹⁸. For the model to improve documentation there is need for exploration of issues underpinning poor quality documentation and how improvement in assessment can be achieved and sustained to

assure quality of nursing documentation¹⁹. Furthermore, clinical governance also needs to be active in implementation of the documentation innovation in order to achieve compliance and success²⁰ while validity and internal consistency of contents should be established for users to easily utilize the model^{21,22}.

A development and validation process involves phases that synchronize to form the whole. The Normalization process theory (NPT) provides the nexus for this model²³. The four main components of the theory, namely: coherence, cognitive participation, collective action and reflexive monitoring form basis of the conceptual framework. Coherence (or sense-making) considers the value of the intervention to those involved in the project or process of care. It attempts to provide answers to questions such as, "Does the new innovation make sense to those involved in the implementation of the work?". Cognitive participation (or engagement) looks at the acceptance of the innovation by those to whom it is made or those that are involved in the project. It considers the level of 'buy-in' from key stakeholders for the innovation to be implemented. Collective action refers to the work that should be done for the successful implementation of the innovation. In other words, it addresses questions like, "what is the work that needs to happen for implementation to occur?" Reflexive monitoring component deals with the formal or informal evaluation of the benefits and costs of the innovation. It addresses how those involved assess the innovation and tackles issues like, Do they say it is good and utilizable or not?

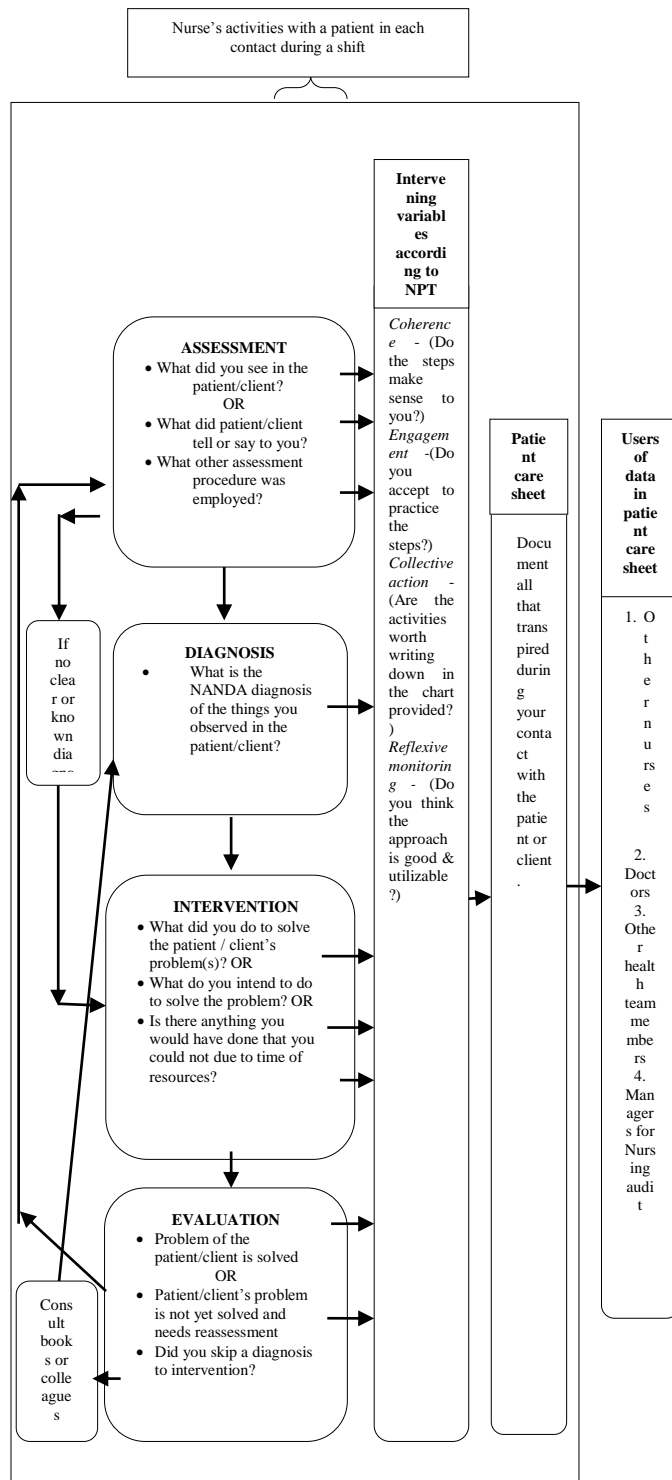
Nursing process and care plan are innovations introduced to address nursing care and documentation challenges. Therefore, the application of this theory is based on the consideration that the proposed model should: make sense to nurses (coherence), stimulate them to buy-in to the project (cognitive participation), involve them in the validation and subsequent use of the model (collective action), and assist them to evaluate the model for its user friendliness (reflexive monitoring).

V. CONCEPTUAL FRAMEWORK

The following is a sketch of the proposed nursing care documentation model.

VI. METHODOLOGY

This study was carried out in two tertiary hospitals, namely Niger Delta University Teaching Hospital (NDUTH), Okolobiri and Federal Medical Centre (FMC), Yenagoa in Bayelsa State, Nigeria. It adopted the action research design because the aim was to solve an immediate problem of poor nursing care documentation and as such involved three stages: conception of an idea based on observation and literature review which is the development of the model, putting the idea into action which is testing the validity of the model, and observing the outcome of the use of the model in order to ascertain its congruence with the concepts of the nursing process and nursing care plan from which the model is adapted.



The instruments for data collection were the ADIE model (Client Care Sheet) and a questionnaire developed by the researchers. They were aimed at determining the validity of the model being developed. The format and contents of the instruments were generated based on existing literature and with respect to the objectives of the study.

The model was semi-structured with six columns. Two of the six columns were ancillary, while the others were the main ones. The ancillary columns were date/time and signature columns. The main columns were for the Assessment, Diagnosis, Intervention and Evaluation (ADIE) steps as shown in appendix I.

In the **DATE** and **TIME** column, the nurse was to state the date and time of contact with the patient in the ward. While the date may not change during a shift, the times of contact changed. The nurse was expected to state each time of contact with patient.

In the **ASSESSMENT** column, the nurse was expected to state all abnormal observations made while at the bed side or attending to the patient. These included signs of the illness (i.e. responses such as fever, rigor, vomiting, etc), posture of patient, condition of a wound, patient's behaviour (e.g., crying after conversing with someone on the phone), treatment procedure (e.g., dressing change with wound drainage) or a special need (e.g., a discharge or referral) and so on. These were corded according to the times of contact with the patient. They were not supposed to be abstractions but actual features that were observable to others as well.

DIAGNOSIS column: This is where nursing diagnosis(es) was made based on the assessment findings and clustering at the stated time. Whereas the expectation was for the nurse to make an appropriate diagnosis following assessment, it was sometimes difficult for some nurses to recall the right diagnosis for the identified features. When this happens, the conception of this model is that such nurse should skip the diagnosis column and proceed to the intervention column. The thought here is that the inability to make a diagnosis at that particular time should not impede the nurse from intervening or solving the problem of the patient, otherwise, the patient's health and wellbeing is compromised. Moreover, this idea was deemed particularly relevant in the practice environment where nurses actually provide therapies that are hardly recorded. This scenario has over time painted a picture that nurses are merely implementers of doctors' orders. Skipping the diagnosis column to intervene for the benefit of the patient and documenting such action proves that the nurse rendered the required care on each contact with the patient during the shift. At a later time when the patient has been taken care of, the nurse should make due consultations to arrive at or determine the appropriate diagnosis and document as required.

INTERVENTION column: Here, the nurse is to write down a plan of what he/she would do or has done for the patient at a given time of contact and identifying his problems. In other words, the nurse should outline what should be done for the patient based on diagnosis or state precisely what and what has been done for the patient upon seeing him in a particular situation even where the most appropriate diagnosis

The study involved all nurses working in the medical and surgical wards which comprised a target population of 122. However, only 81 of them participated based on the inclusion criteria which included: being available at the time of the documentation exercise and willingness to participate in the study.

is not immediately figured out. Also, intended actions which could not be carried out due to constraints are likewise documented. For example, if nurse A would have dressed a wound during a shift but could not do so because of lack of dressing pack or work overload and lack of time, it will be stated as an order as in “dress patient’s wound”. The rationale for the order would be stated under the evaluation column. Such order shows that the wound ought to be dressed and nurse B who is taking over the shift is expected to implement it, thereby assuring continuity of care. In the same vein, if a doctor needed to see a patient and was invited, it should be written under this column because it was an intervention. In conclusion, every bit of service that was rendered as part of a patient’s care is an intervention and so should be documented as such.

EVALUATION column: This is to capture or reflect remarks. In this column, the nurse is to write down the response, i.e. improvement or deterioration that is observed in the patient following an intervention. It also includes writing down intended actions that were not carried out even though they were necessary. Referring to the example above, the nurse that ordered wound dressing would document in this column the reason why the procedure could not be carried out as proposed. This is written against the time the prescription for wound dressing was made.

SIGNATURE column: In this, the nurse signs against the time the activities on the patient were done. The essence is to show accountability of care. Subject to institutional policies, the name of the nurse may be written here instead of a signature or both the name and signature may be written.

The questionnaire has sections A and B with fourteen questions. Section A consisted of three questions to obtain demographic data. Section B comprised eleven questions which were aimed at ascertaining the perception of the nurses about the user friendliness of the model in comparison to the booklet format in use.

Validation of the instruments for data collection was done at different levels. Face and content validity of both instruments were ascertained by giving the model and questionnaire to four nursing experts; one clinician and three other senior lecturers in Nursing Departments of universities. Necessary corrections were effected to yield the final instruments. Confirmatory Factor Analysis (CFA) was also used to ascertain the construct validity of the model. Then convergent validity was used to confirm the construct via use of the model by practicing nurses (as consumers) in the wards. This was necessary because the study made use of two instruments; a model and questionnaire. Reliability of instruments was ascertained by a pilot study. The use of the model was carried out on a conveniently sampled population of six nurses (representing more than 10% of the total population) from the Diets Koki Hospital, Opolo (two each from Medical, Surgical and gynaecological wards). The pilot study was done to determine the adequacy of the instrument, feasibility of the study, and to detect any defects in methodology. The test-retest method was used at two weeks interval. Data obtained were subjected to internal consistency test using correlation coefficient (Pearson product moment

correlation coefficient) to compute reliability coefficient. The result obtained was $p=0.5$ indicating that the instrument is reliable.

Ethical approval was obtained from the ethical committee of the hospitals permitting the researchers to undertake the study in the hospitals. Also, informed consent was obtained from the participants before involving them in the study with assurances of confidentiality, anonymity and none maleficence.

Data Collection procedure followed administrative permit from the Directors of Nursing Services and ward heads of the hospitals for permission to introduce the model and work with the nurses in the selected wards. The researchers trained four research assistants on the purpose of the study and how to collect data using the format. On entering each ward, the researchers and assistants introduced the format to the nurses on duty without explanation of the contents and requested them to start using it as they attended to their patients. The subjects were allowed to use the format the way they understood it without instructions from the researchers or assistants since the expected activities in each column was explained in the format. Nevertheless, the researchers and assistants occasionally glanced on how the subjects were progressing with the usage. At the end of a shift (8 hours) or before the end, documents that were filled were retrieved by the researchers and assistants. The number of client care sheets used by the nurses depended on the number of patients in the wards. Some nurses even used two or three copies of the care sheet on some patients. By this, each participant filled the model at least three times. After filling the model, they were given the questionnaire to answer. Some of the questionnaires were collected immediately while others were collected later or the next day especially those on night shifts. This procedure took place simultaneously in the selected wards and was repeated throughout the three shifts in the day. The exercise lasted for three weeks in each hospital. The entire data collection period was lasted for six weeks. The copies of the questionnaire that were administered were 87 but those that were retrieved and completely filled were 81 which constituted the sample. The total number of used client care sheets that were retrieved for analysis was 248.

Scores obtained from the questionnaire were analyzed using means and standard deviations and presented in tables.

To check for the validity and reliability of the model, a checklist was prepared and used to grade the usage of the various components and contents of the model. Proper usage was graded (3), improper usage was graded (2) and non-usage was graded (1). See appendix for checklist.

The gradings in the checklist were then tested using means and standard deviation to ascertain the validity of the instrument. Means that were 2.5 and above were judged as proper usage and means below 2.5 were considered improper usage. There was no none usage from the check list.

The results obtained were then used to determine the content validity and reliability of the nursing care documentation format

The perception of user-friendliness of the nursing care documentation model was determined through respondents’

responses while development of components and contents of the model were achieved through reviewed literature and respondents' responses with the aid of means and standard deviations.

VII. RESULTS

The Socio demographic data in Table 1 shows that majority of respondents (84%) were females. Also, majority of respondents are lower cadre nurses who are relatively young in the profession. They are Nursing Officer (NO) II (40.7%), NOI (27.2%), and Senior Nursing Officer (SNO) (13.6%). Nevertheless, the educational qualification of respondents spreads from diploma to degree level with majority (38%) possessing RN and RM; RN (32.1%) BNSc (13.6%) and holders of RN, RM plus other Post Basics were 16%.

Results in Table 2 showed mean values of 2.81, 3.00, 3.00, 3.00, 2.97 and 2.98 for Date, Assessment, Diagnosis, Intervention and Evaluations respectively. The values indicated that there was proper usage for all the aspect of the new model.

Table 3 shows a high level of acceptance of the tool as they all scored high affirmative percentage responses on each of the questions. It shows that majority (70%) of the respondents strongly agreed and agreed (29.6%) that the model is essential. This was again confirmed by the mean value 3.70, implying that an average respondent will be somewhere between agreeing and strongly agreeing that the model is essential. Majority (61.7%) of the respondents also agreed while (34.6%) strongly agreed to the fact that the model is simple to use. This again was corroborated by the mean value of 3.30 which means that an average respondent would at least agree that the model is simple to use. Furthermore, a high affirmative response was recorded with respect to the fact that the model is preferable to the nursing care booklet in the hospitals. It shows that most respondents agreed (50.6%) and strongly agreed (29.6%) to the statement. Another majority (55.6%) agreed and strongly agreed (40.7%) that the model affords them the opportunity to state exactly what transpired between them and the patient, as also supported by mean value of 3.32 which means that an average respondent would at least agree to the fact that the format affords them the opportunity to state exactly what transpired between them and the patients.

Table 3 also shows that about 20% of the respondents strongly agreed and agreed (76.0%) that the model affords them the opportunity to report their observation about the patient even when they were not able to attend to the need. The mean value for this was 3.16. Furthermore, 60.1% of the respondents agreed that the model is simple to use, followed by another 27.1% who strongly agreed to the statement. Here, the mean value was also 3.15 and it shows that an average respondent would agree that the model is simple to use. Also, the result shows that all (100%) respondents agreed that the model has improved their patient care approach. Finally, the table shows that 57 (70.4%) of the respondents believed that the model suits their practice. Another 21 (26%) of the respondents strongly agreed to that statement while 3 (2.4%)

respondents disagreed with the statement that the model suits their practice situation.

VIII. DISCUSSION

Development of instrument is with recourse to review of published literature, relevant laws and professional requirements. In this light, development of appropriate components and contents for the components of the nursing care documentation model was basically achieved by reviewing relevant literature. The process also meets the recommendation that development of a model of documentation should cover three areas, namely; documentation structure and format, documentation process and documentation content¹⁸. The format of documentation adopted here is the focus charting format where columns are used to capture Data, Action, and Response (DAR or DARP – where P stands for plan for further action)^{24, 25}. The documentation process and contents were also based on the principles and steps of the nursing process. Findings on the appropriateness and adequacy of the model showed that the columns and their contents were concise and apt and enabled them to capture what information they should convey. This is similar to the studies in which respondents via questionnaire evaluated the documentation formats developed^{19, 26}. The participants in those studies answered questions bothering on pertinence, simplicity, completion, understandability and applicability of the models. The responses strongly approved the models for use in clinical practice as well as in schools. Nevertheless, it is noteworthy that 45.7% of the respondents complained that the columns were not enough. Although it is unclear what they actually understood there but it can be assumed that they were referring to the width of the columns. Nonetheless, the observation did not affect the completeness of the columns and their contents as majority approved the way they are.

The result also showed that the model has high validity and reliability as there was proper usage of the all items on the model as evidenced by the mean values are above the 2.5 minimum benchmark. This finding is similar to literature reports²⁶. They also set a minimum mean score for their model to be accepted as satisfactory or not. In their work a score of 7 or higher was considered acceptance of the model. In this work, 2.5 or more was accepted as the validity and reliability score. Hence the model is concluded as valid and reliable.

The result also revealed a high level of acceptance of the model in relation to user-friendliness and preference to the nursing process booklets in the hospitals. This finding is not different from results in other studies in which over 75% of nurses expressed satisfaction and user-friendliness with a model of documentation which they developed locally^{19, 26}. However, 19.8% of respondents in this work did not regard the proposed model as preferable to the one in use in their hospitals. Their perception may be due to the fact that this model also bears the same tenets of the nursing process as the booklets in use. Nevertheless, there is high preference for this model compared to the other one in use since majority of the subjects indicated so.

IX. CONCLUSION

Considering that nursing is a profession that is laden with lots of information about patients and their care processes, there is a widely published need to have a simplified documentation format that will motivate nurses to document all that they do. This need has led to the use of coded electronic records in developed nations. Back here in Nigeria, that feat is far from reach. It is therefore necessary to devise more appropriate ways of documenting accurately what nurses do. Findings from this study revealed that nurses desire to have a simplified format for documentation and as well nurses desire to have their patient care activities completely documented. Therefore, this study recommends that nurses should be sensitized to be more interested in documenting their care via simplified documentation formats and hospital managements should adopt this model for use in patient care.

APPENDIX

Table 1: Socio demographic data of respondents

Socio demographics	Frequency	Percent
Rank		
NOII	33	40.7
NOI	22	27.2
SNO	11	13.6
PNO	7	8.6
ACNO	5	6.2
CNO	2	2.5
DNS	1	1.2
Total	81	100
Gender		
Female	68	84.0
Male	13	16.0
Total	81	100
Education		
RN	26	32.1
RN,RM	31	38.3
RN,RM+ other Post Basics	13	16.0
BNSc	11	13.6
MSc and above	-	-
Total	81	100

Table 2: Validity and reliability of model

Report						
	Date	Assessment	Diagnosis	Intervention	Evaluation	Signature
Mean	2.81	3.00	3.00	3.00	2.97	2.98
N	248	248	248	248	248	248
Std. Deviation	.393	.000	.000	.000	.177	.126

Table 3: Perception of user-friendliness of proposed model

Personal factors	SA (%)	A (%)	D (%)	SD (%)	X	SD
This model of documenting nursing care is essential	57 (70.4)	24 (29.6)	-	-	3.70	0.463
The model is simple and easy to apply in practice	28 (34.6)	50 (61.7)	3 (3.7)	-	3.30	0.544
I can easily understand the columns and content	34 (42.0)	47 (58.0)	-	-	3.42	0.499
It clearly tells me the information I need to document	32 (39.5)	49 (60)	-	-	3.40	0.495

I think the columns are not enough to document care	18 (22)	21 (25.9)	37 (45.7)	5 (6.2)	2.58	0.898
This model is preferable to the nursing care booklet in this hospital	24 (29.6)	41 (50.6)	16 (19.8)	-	3.10	0.707
It affords me opportunity to state exactly what transpired between me and the patient	32 (40.7)	45 (55.6)	3 (3.7)	-	3.32	0.563
It affords me the opportunity to report my observation about the patient even when I was not able to attend to his need	16 (20)	62 (76.0)	3 (3.7)	-	3.16	0.444
Thus model is simple to use	22 (27.1)	49 (60.1)	10 (12.3)	-	3.15	0.618
This new model has improved my patient care approach	23 (28.3)	58 (72)	-	-	3.28	0.454
This model suits my practice situation	21(26)	57 (70.4)	3 (2.4)	-	3.22	0.507

CLIENT CARE SHEET

NAME OF PATIENT: ---- HOSPITAL NO: ----

DATE/TIME (When did you attend to the patient?)	ASSESSMENT (What did you see in the patient? OR What did the patient tell or say to you? What did tests say or did you do any? - State findings)	DIAGNOSIS (What is the NANDA nursing diagnosis of the things you observed in the patient?)	INTERVENTION (What did you do to solve the patient's problem(s) OR what do you intend to do to solve the problem?)	EVALUATION (Problem of the patient is solved OR patient's problem is not yet solved and needs reassessment)	SIGNATURE (State your identity)

NB: Please write down every nursing action you take. You may skip the diagnosis when not sure but make sure to revisit it (after necessary consultations)

ACKNOWLEDGEMENT

Our gratitude goes to Prof. Agnes N Anarado, Dr. Ada C. Nwaneri, Dr. Anthonia C. Chinweuba, Dr. Ngozi Ogbonnaya, the nurses and management of the teaching hospitals where the study was carried out.

REFERENCES

[1] Wood, C. (2003). The importance of good record keeping for nurses. www.nursingtimes.net. Accessed 29/10/13.

- [2] Henderson, V. (2009). Analysis of importance of nursing documentation in current essay. <http://www.ukessays.com>. Accessed 27/10/13
- [3] Huffman, M. (2004). Redefine care delivery and documentation. www.ncbi.nlm.nih.gov/pubmed/14767231. Accessed on 23/9/13
- [4] Johnson, K., Hallsay, D., Meredith, R.L. and Warden, E. (2006). A nurse-driven system for improving patient quality outcomes. www.ncbi.nlm.nih.gov/pubmed/16540786. Accessed on 23/9/13
- [5] Rao, T.V. (2011). Medical documentation. www.slideshare.net/doctorrao/medical-documentation. Accessed on 23/9/13
- [6] Stern, D. (2012). Importance of medical documentation. www.ehow.com. Accessed on 23/9/13
- [7] Anderson, L. (2014). The impact of documentation on quality care. www.nursingtogether.com. 28/3/14.
- [8] Connor, K.O., Earl, T. and Hancock, P. (2007). Introducing improved nursing documentation across a trust. <http://www.nursingtimes.net>. 23/9/13
- [9] Adejumo, P. O. and Olaogun, A.A. (2009). Nursing process: A tool for holistic approach to nursing care. *West African Journal of nursing*, 20(1):34-39.
- [10] Garba, S.N., Ladan, M.A., Sani, D.K., Ajayi, A.D., Abdul, H.M. and Kure, M. (2011). Nurses knowledge and the use of nursing process. *Nursing and midwifery council of Nigeria Research Journal*. Vol (1).
- [11] Lee, T.T. and Chang, P.C. (2004). Standardized care plans: experiences of nurses in Taiwan. www.ncbi.nlm.nih.gov/pubmed/14687291
- [12] Hendrich, A.C., Chow, M.P., Skierczynski, B.A. and Lu, Z. (2008). Maximising the impact of nursing care quality. www.healthdesign.org. Accessed on 23/10/13
- [13] LaDuke, S. (2008). Death to care plans. *America Journal of Nursing*. www.nursingcentre.com/linejournalarticle. Accessed on 23/9/13
- [14] Currell, R. and Urquhart, C. (2005). Reviewing the evidence on nursing record system. www.ncbi.nlm.nih.gov. Accessed on 23/10/13
- [15] Sinclair, J. (2011). Why nurses need better EMR design to care for patients. <http://www.kevinmd.com/blog/2010/08/nurses-emr-design-care-patients.html>. 25/9/13
- [16] Keenan, G.M., Yakel, E., Tschannen, D. and Mandeville, M. (2008). Chapter 49. Documentation and the nursing care planning process. *Patient safety and quality: an evidence based handbook for nurses*. www.msha.com/Uploads/images/nursingstudent/.../index.html. 23/9/13.
- [17] O'Leary, K.J., Liebovitz, D.M., Feinglass, J., Liss, D.T., Evans, D.B., Kulkarni, N., Landler, M.P. and Baker, D.W. (2009). Creating a better discharge summary: improvement in quality and timeliness using an electronic discharge summary. <https://pubmed.ncbi.nlm.nih.gov/19267397/>
- [18] Wang, N., Yu, P., Hailey, D. and Oxlade, D. (2011). Developing measurements of the quality electronic versus paper-based nursing documentation in Australian aged care homes. www.ejhi.net. 22/3/14
- [19] Lees, L. (2010). Improving the quality of nursing documentation on an acute medicine unit. www.nursingtimes.net. 25/3/14
- [20] Dehghan, Dehghan, Sheikhrabari, Sadeghi, Jalalian (2013). Quality improvement in clinical documentation: does clinical governance work? <http://www.ncbi.nlm.nih.gov/pubmed>. 12/7/14
- [21] Siqueira, L.D.C., Caliri, M.H.L., Kalisch, B. and Dantas, R.A.S. (2013). Cultural adaptation and internal consistency analysis of the MISSCARE Survey for use in Brazil. <http://dx.doi.org/10.1590/S0104-11692013000200019>
- [22] Glasberg, A., Eriksson, S., Dahlqvist, V., Lindahl, E., Strandberg, G., Söderberg, A., Sørli, V. and Norberg, A. (2014). Development and Initial Validation of the Stress of Conscience Questionnaire. <http://www.mdpi.com>. 28/10/14
- [23] May, C., Murray, E. Mair, F., Treweek, S., Ballini, L., Macfarlane, A. and Rapley, T. (2010). Normalization process theory. www.normalizationprocess.org. 31/10/13
- [24] Abbas, A.D. (2011). Nursing Documentation. www.conursing.uobaghdad.edu.iq. 30/9/13
- [25] Hartley, P.A. (2007). Documentation. www.ceufast.com. 18/10/13
- [26] Fernández-Sola, C., Granero-Molina, J., Mollinedo-Mallea, J., Gonzales, M.H.P., Aguilera-Manrique, G. and Ponce, M.L. (2012). Development and validation of an instrument for initial nursing assessment. www.ee.usp.br/reeusp. 22/3/14