Journal of Medical Practice and Review

NURSING DOCUMENTATIONS IN THE CLINICAL SETTINGS: VARIATIONS IN CLIENTS' DIAGNOSES

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ARTICLE INFO

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KEYWORDS: Nursing documentation, Variations, Client diagnosis, Clinical setting

ABSTRACT

Clients' problems and the resultant nursing interventions, to some extent, influence the pattern of nursing documentation for the actions taken. This study examined the variations in nursing documentations with respect to clients' diagnoses. The study was a retrospective research design. Judgemental and simple random sampling techniques were used to select documented nursing actions for 264 clients with ailments associated with medical, surgical, obstetric and infective diagnoses. The selection was from two tertiary, two secondary and two primary health care institutions in Anambra State of Nigeria. Two research questions and three null hypotheses guided the study. Checklist on Nursing Documentation in the clinical setting was used for data collection. Frequency distribution, mean score and standard deviation (SD) were used to summarize the variables. Mean score, standard deviation and Pearson Product moment correlation were used to answer the research questions while analysis of variance (ANOVA) was adopted in testing the null hypotheses at 0.01 and 0.05 levels of significance respectively. The result revealed significant correlations between nursing documentation and timeless of the documentation as well as promotion of interdisciplinary communication. The result also indicated that nursing documentation significantly differ with clients' diagnoses.

Introduction.:

Tools are needed to support the continuous and efficient shared understanding of a patient's care history that simultaneously aids sound intra and inter-disciplinary communication and decision-making about the patient's future care (Joint Commission on the Accreditation of Health care Organisations, 2005). Such tools are vital to ensure that continuity, safety and quality of care endure across the multiple handovers made by the many clinicians involving in patient care. Generally, tools are implements held in the hands, which in the healthcare setting refer to documentation. Potter and Perry (2010) describe documentation as anything written or electronically generated that describes the status of a client or the care or services given to that client. Nursing documentation refers to written or electronically generated client information obtained through the nursing process (ARNNL, 2010). Nursing documentation is a vital component of safe, ethical and effective nursing practice regardless of the context of practice or whether the documentation is paper based or electronic, it is an integral part of nursing practice and

professional patient care rather than something that takes away from patient care, and it is not optional.

According to Potter and Perry (2010), nursing documentation must provide an accurate and honest account of what and when events occurred, as well as identify who provided the care. The documentation should be factual, accurate, complete, current (timely), organized and compliant with standards (Professional and Institutional). Potter and Perry (2010) further stated that these core principles of nursing documentation apply to every type of documentation in every practice setting.

Documentation in nursing covers a wide variety of issues, topics and systems (Yocum, 2002; Huffman, 2004, Lindsay et al 2005; Johnson et al 2006). Such areas of coverage include all aspects of nursing process, plan of care, admission, transfer, transport, discharge information, client education, risk taking behaviours, incident reports, medication administration, verbal orders, telephone orders, collaboration with other health care professionals, date and time of any event as well as signature and designation of the recorder.

The primary purpose of documentation is to facilitate information flow that supports the continuity, quality and safety of care. Potter and Perry (2010) pointed out that data from documentation allow for communications and continuity of care, quality improvement/ assurance and risk management, establish professional accountability, make provision for legal coverage, funding and resource management, and also expand the science of nursing. Potter and Perry (2010) also explained that clear complete and accurate health records serve many purposes for the clients, families, registered nurses and other health care providers. Delaune and Ladner (2002) further affirmed that documentation is the professional responsibility of all health care practitioners, and that it provides written evidence of the practitioner's accountability to the client, the institution, the profession and the society.

Literature has revealed that the tensions surrounding nursing documentation include the amount of time spent in documenting, the number of errors in the records, the need for legal accountability, the desire to make nursing work visible, and the necessity of making nursing notes understandable to the other disciplines (Spraque and Trapanier 1999; Castledine, 1998; Dimond, 2005; Pearson, 2003). This study therefore intends to explore the variations in nursing documentations with respect to clients' diagnoses.

Research Questions.:

- How does the timeliness of nursing documentation relate with promotion of interdisciplinary communication in the clinical setting?
- To what extent does documented nursing action relate with promotion of interdisciplinary communication?

Hypotheses.:

- The preciseness of nursing documentation does not significantly differ among clients with infections, medical, obstetric and surgical conditions.
- There is no significant difference among the clients with infective, medical, obstetric and surgical conditions with regards to the legal implications of the documented nursing actions.
- The impact on nursing science for documented nursing actions does not significantly differ among the clients with medical, surgical, obstetric and infective conditions.

Materials and Methods:

Design and Sampling.:

The study was a retrospective research design. Judgmental sampling technique was adopted in selecting one Teaching Hospital and one specialist Hospital (tertiary Health Institutions) in Anambra State of Nigeria. Simple random sampling was used to select two General Hospitals (Secondary Health Institutions) and two comprehensive Health Centres (Primary Health Institutions) out of the 24 General Hospitals and 10 comprehensive Health Centres in Anambra State. This was to give all the primary and secondary health institutions equal chance of being selected for the study (Nworgu, 1991).

Nursing documentations on Clients were obtained from three units (medical, surgical and maternity units) of each of the selected health institutions. Other units (e.g. Emergency unit, Out-patient Department, and other special units) were excluded in the study. Documented nursing actions for 96 clients were obtained from the selected tertiary health institutions, 72 were obtained from the secondary health institutions and 96 from the primary health institutions. On the whole nursing documentation for 264 clients were used for the study. Ethical approval were obtained from the six institutions used for the study. Informed consent was also obtained from the clients whose records were used. Confidentiality was ensured by not including the names of the health institutions in the data collection. Alphabetical codes were used to represent the selected health institutions while numerical codes were used for the patients whose records were obtained for the study. Generally, records of nursing documentation from July – September 2015 were used for the study.

Instrument.

The instrument used for data collection in the study was checklist titled Checklist on Nursing Documentation in the clinical setting (CNDCS). Section A of the instrument provided general information of the health institution (eg level of health institution, clinical specialty, form of documentation, client's clinical diagnosis, documentation of accountability, section B of the instrument was made up of eight sub-sections designed to measure documented nursing actions (eg admissions, transfers, discharges, plan of care, client education, medication, incident reports, vital signs, etc), extent of ensuring core principles in the documentation (eg whether factual, accurate, complete, timely, organized and compliant with standards), ensuring promotion of interdisciplinary communication (eg name(s) of the people involved in the collaboration, date and time of the contact, information provided to or by healthcare provider, responses from healthcare provider, etc), timeliness of the documentation (eg how timely, chronological and frequency), preciseness of the documentation (eg objectivity, unbiased, legibility, clear and concise, etc), Legal implication (eg use of authorized abbreviations, informed consent, advanced directive,etc), impact on quality assurance/ improvement (eg facilitates quality improvement initiative, facilitates risk management, and used to evaluate appropriateness of care), and impact on the science of nursing (eg provides data for nursing/health research, used to assess nursing intervention and client outcomes, etc). The instrument was designed in a 4 – point scale ranging from 1 to 4 with poor/many omissions having I point, 2 points for fair/incomplete with few omissions, 3 points for good/almost complete and 4points for very good/complete.

The instrument was subjected to reliability test by collecting data from nursing documentations for 15 patients from three levels of health institutions (primary, secondary and tertiary) in another State of Nigeria that was not used for the study. The instrument test/ retest reliability was 0.65.

Data Analysis.

Standard descriptive statistics of frequency, means and standard deviation were used to summarize the variables. Mean score, standard deviation and Pearson Product moment correlation (r) were used to answer the research questions while Analysis of variance (ANOVA) was adopted in testing the null hypotheses at 0.01 and 0.05 levels of significance respectively. SPSS version 21was used in the data analysis.

Result. ***Table 1.General Information of the Health Institutions used for the study.***

Variable	Frequency	Percentage
Level of Health Institution:		
Primary	96	36.4
Secondary	72	27.3
Tertiary	96	36.4
Clinical Specialty:		
Medical unit	97	36.7
Surgical unit	63	23.9
Maternity unit	104	39.4
Form of Documentation:		
Written documentation	262	99.2
Electronic documentation	2	0.8
Client Diagnoses:		
Obstetric condition	105	39.8
Medical condition	93	35.2
Surgical condition	61	23.1
Sepsis/Infection	5	1.9
Demonstration of Accountability:		
Primary provider	247	93.6
Secondary provider	15	5.7
Third party provider	2	0.8

Total N = 264

Table 1 show the general information of the health institutions used for the study. Primary Health Centre constituted 36.4% of the Health institutions, 27.3% constituted secondary level while tertiary level constituted 36.4%. The clinical specialties of the health institutions that were used for the study were medical 36.7%, surgical unit 23.9% and maternity unit which formed 39.4%. Out of the forms of nursing documentations, 99.2% was written documentation while electronic documentation formed 0.8%; 39.8% was obstetric conditions, medical conditions 35.2%, surgical conditions 23.1% while documented infective conditions constituted 1.9%. For demonstration of accountability in the documented nursing actions, 93.6% was done by primary providers, 5.7% by secondary providers, while third party providers accounted for 0.8% of the documentations. Total number of each variable was 264.

Table 2.Descriptive Statistics of the Measured Variables.

Variable	N	Minimum	Maximum	Mean	SD
Nursing Action Documentation	264	23.00	76.00	54.6402	9.86811
Core principles of Documentation	264	11.00	24.00	19.2462	2.38101
Promotion of interdisciplinary communication	264	9.00	36.00	30.8485	5.61433
Timeliness of Documentation	264	6.00	12.00	9.5568	1.32703
Preciseness of Documentation	264	18.00	40.00	31.9470	3.30299
Legal implication	264	11.00	24.00	19.6439	2.47153
Impact on Quality Assurance	264	4.00	12.00	9.6250	1.63129
Impact on Nursing Science	264	4.00	16.00	13.7462	2.43860
Valid N (Listwise)	264				

Table 2 shows the descriptive statistics of the measured variables. Out of the

264 documented nursing actions, the mean was 54.6402 and the standard deviation (SD) was 9.86811. Mean for the core principles of the documentation 19.2462 with SD of 2.38101. For promotion of interdisciplinary communication, the mean was 30.8485 with SD of 5.61433. Timeliness of documentation had a mean of 9.5568 with SD of 1.32703. Mean for preciseness of the documentation was 31.9470 with SD of 3.30299. For legal implications, the mean was 19.6439 with SD of 2.47153. Impact of the documentation on quality assurance had a mean of 9.6250 with SD of 1.63129, while impact on Nursing Science had a mean of 13.7462 with SD of 2.43860.

Table 3.Relationship between timeliness of nursing documentation and promotion of interdisciplinary communication.

Variables	**N**	**$\overline{X}$**	**SD**	**r**	**Critical value**	**Level of significance**
Timeliness of nursing documentation	264	9.5568	1.32703	** 0.627	0.000	0.01
Promotion of inter-disciplinary communication	264	30.8485	5.61433			

** Correlation was significant at 0.01 level (2 – tailed).

Table 3 shows that r correlational value for the relationship between timelines of nursing documentation and promotion of interdisciplinary communication was 0.627, and it was significant at 0.01 level.

Table 4. Relationship between Nursing action documentation and promotion interdisciplinary communication.

Variables	**N**	**$\overline{X}$**	**SD**	**r**	**Critical value**	**Level of significance**
Nursing Action documentation	264	54.6402	9.86811	** 0.659	0.000	0.01
Promotion of interdisciplinary communication	264	30.8485	5.61433			

** Correlation was significant at 0.01 level (2 – tailed).

In table 4, the r correlational value for the relationship between nursing action documentation and promotion of inter-disciplinary communication was 0.659. It was significant at 0.01 level.

Table 5. ANOVA showing comparison of nursing documentations across clients' diagnoses with regard to preciseness, legal implications and impact of the documented actions on nursing science.

Variable	**Client Diagnosis**	**N**	**$\overline{X}$**	**SD**	**Source**	**Sum of squares**	**df**	**Mean Squares**	**f-cal**	**f-crit (sig)**
Preciseness of Documentation	Obstetric	105	32.7143	2.76209	Between Group	207.924	3	69.308	6.771	0.000
	Medical	93	31.4624	3.62227						
	Surgical	61	31.7705	3.10050	Within Group	2661.334	260	10.236		
	Infective	5	27.0000	4.58258						
	Total	264	31.9470	3.30299		2869.258	263			
Legal Implication	Obstetric	105	19.9810	1.53786	Between Groups	66. 447	3	22.149	3.739	0.012
	Medical	93	19.0538	3.02298						
	Surgical	61	20.0820	2.65390	Within Groups	1540.083	260	5.923		
	Infective	5	18.2000	2.77489						

	Total	264	19.6439	2.47153		1606.530	263			
Impact Nursing Science	Obstetric	105	14.1048	2.14800	Between Groups	34. 750	3	11.583	1.969	0.119
	Medical	93	13.4301	2.75601						
	Surgical	61	13.7377	2.40071	Within Groups	1529.247	260	5.882		
	Infective	5	12.2000	1.09545						
	Total	264	13.7462	2.43860		1563.996	263			

NB: Probability: 0.05 level of significance.

In table 5, the calculated F-ratio for preciseness of nursing documentation across clients' diagnoses was 6.771; for the legal implications, the F-ratio was 3.739, while for the impact of the documentation on Nursing science, the F-ratio was 1.969. These results were more than the critical values. Hence the null hypotheses are rejected. Scheffe test (Akuezuilo and Agu, 2004) of multiple comparison of means was used to determine the order of significant differences across the clients with obstetric, medical, surgical and infective conditions.

Table 6.Scheffe (Post Hoc) test of multiple comparison of the means of preciseness,and legal implications of documented nursing actions across clients' clinical diagnoses.

Dependent variable	**(1) Client Clinical Diagnoses**	**(J) Client Clinical Diagnoses**	**Mean Difference (1 – J)**	**Standard Error**	**Sig (F – Crit)**
Preciseness of Documentation	Obstetric	Medical Surgical infection/sepsis	1.25192* 0.94379 5.71429*	0.45557 0.51506 1.46447	0.006 0.068 0.000
	Medical	Obstetric Surgical Infection/sepsis	-1.25192* 0.30813 4.46237*	0.45557 0.52713 1.46876	0.006 0.559 0.003
	Surgical	Obstetric Medical Infection/sepsis	-0.94379 0.30813 4.77049*	0.51506 0.52713 1.48828	0.068 0.559 0.002
	Infection/ sepsis	Obstetric Medical Surgical	- 5.71429* -4.46237* -4.77049*	1.46447 1.46876 1.48828	0.000 0.003 0.002
Legal Implication	Obstetric	Medical Surgical Infection/Sepsis	0.92719* - 0.10101 1.78095	0.34656 0.39181 1.11404	0.008 0.797 0.111

Key: * The mean difference was significant at 0.05 level

Table 6 shows that mean differences of 1.25192 and 5.71429 existed between obstetric/medical and obstetric/infective clinically diagnosed clients with respect to preciseness of nursing documentation. The mean differences were in favour of clients with obstetric conditions. The mean difference of 4.46237 between medical condition and infective condition was in favour of medical condition. The mean difference of 4.77049 between surgical and infective conditions was in favour of surgical condition. The table also shows that mean difference of 0.92719 existed between clients' clinical diagnoses of obstetric and medical conditions with regard to legal implications of nursing action documentation, and it was in favour of obstetric condition.

Discussion.

Findings from the study indicate correlational relationships between timeliness of nursing documentation and promotion of interdisciplinary communication (r = 0.627) (table 3), and also between nursing actions documentation and promotion of inter-disciplinary communication (r=0.659) (table 4). DeLaune and Ladner (2002) state that in addition to professional responsibility and accountability, other reasons to document include communication. Communication is a dynamic, continuous and multidimensional process for sharing information as determined by Standards and policies. Reporting and recording are the major

communication techniques used by health care providers to direct client-based decision-making and continuity of care (DeLaune and Ladner, 2002). For effective reporting, the documentation should be done as soon as the client encounter is concluded so as ensure accurate recall of data (Estes, 2002).

The study indicated significant differences in nursing documentation across clients' diagnoses with regard to preciseness, legal implications and impact of the documentation on nursing science (tables 5 and 6). DeLaune and Ladner (2002) explained that documentation requirements differ with clients population (eg obstetrics, paediatrics, geriatrics, etc). Literature has it that documentation validate the need for research, for example, if documentation demonstrates an increased infection rate with intravenous catheters, researchers can identify and study the variables that may be associated with the increased infection rate (DeLaune and Ladner, 2002).

Conclusion.

This study indicates that eventhough documented nursing actions have impact on the timeliness and promote interdisciplinary communication, nursing documentations differ with clients' clinical diagnoses.

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