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Healthcare Worker Documentation Complexities; A Systemic Review

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Abstract

This study aimed to explore complexities in nursing documentation and related factors. Nursing documentation has been one of the most important functions of nurses since the time of Florence Nightingale because it serves multiple and diverse purposes. Current health-care systems require that documentation ensures continuity of care, furnishes legal evidence ofthe process of care and supports evaluation of quality of patient care. However, nursing documentation has not served such objectives because of its complexities.This study explores nursing documentation complexities and related factors through both qualitative and quantitative methodologies. The study used multiple methods of inquiry:[1] in-depth interviewing; participant observation; nominal group processing; focus group meetings; time and motion study of nursing activities; and auditing of completeness of nursing documentation. Complexities in nursing documentation include three aspects: dis- ruption, incompleteness and inappropriate charting. Related factors that influenced documentation comprised: limited nurses' competence, motivation and confidence; ineffective nursing procedures; and inadequate nursing audit, supervision and staff development.These findings suggest that complexities in nursing documentation require extensive resolution and implicitly dictate strategies for nurse managers and nurses to take part in solving these complicated obstacles.

Key words: *nursing documentation, mixed methods research, nursing practice.*

INTRODUCTION

Currently, there is an evolving quality agenda in health- care that has significant implications for acceptable docu-mentation requirements. The focus of quality has moved

from retrospective investigation to its development into a new approach that requires assessment, control, manage- ment and continuous improvement. Also, the quality agenda emphasizes outcomes, shifting from traditional measures of mortality and morbidity to patient-focused concepts.[1] Consequently, documentation is one important mechanism used to evaluate care performance conducted by the caregiver. It emphasizes monitoring quality of health-care as evidenced by patient outcomes.[2]

LITERATURE REVIEW

The importance of nursingdocumentation

Since the time of Florence Nightingale (1859), nurseshave viewed patient documentation as a vital part of pro-fessional practice.[2] Nursing documentation is generally recognized across the world and

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also in Thailand, as oneof the important duties underscoring professional auton-omy and serving as the centre of nursing activities. Its immediate worth is in assisting nurses to apply nursing care plans and nursing theories in the clinical setting.[3] Nursing documentation serves multiple purposes. For example, it is used for: (i) ensuring continuity and qual- ity of care through communication; (ii) furnishing legal evidence of the process and outcomes of care; (iii) sup- porting the evaluation of the quality, efficiency and effec- tiveness of patient care; (iv) providing evidence for research, financial and ethical quality-assurance pur- poses; (v) providing the database infrastructure support- ing development of nursing knowledge; (vi) assisting in establishing benchmarks for the development of nursingeducation and standards of clinical practice; (vii) ensur- ing the appropriate reimbursement; (viii) providing the database for planning future health-care; and (ix) provid-ing the database for other purposes such as risk manage-ment, learning experience for students and protection of patients' rights.[2,4,5]

Its drawbacks and related factors Globally, many nurses including those in Thailand encoun-ter similar problems in documenting patient care.[6–9] According to several international studies, nursesapproach inappropriate record-keeping with two mainissues in mind; the documentation itself and four relatedfactors including the nursing process; nurses' perfor-mance (knowledge, skills and attitude); daily tasks andmanagement matters.

The documentation issue

The documentation issue exists in the actual content, itsforms and procedures used. For example, initially recorded assessments are commonly viewed as incomplete[6,10] or as a poor assessment of the patient on admission.[7] Mostly, nursing records have no nursing diag- noses.[6,8,9] If nursing diagnoses are identified, the patients' problems that are identified predominantly address phy-sical problems based on medical diagnoses, with few psychosocial needs.[10–13] Nursing diagnoses are often inaccurate and inconsistent,[14] especially when they are not relevant to the patient's condition,[6] and might lead to inappropriate nursing interventions to achieve patient outcomes. Nursing care plans are not consistently written[11,15–18] or are not used for interventions.[19] Nursinginterventions recorded are related to medical rather than nursing problems and rarely include the patient's view: they draw only on the nurses' own judgements as the source for successful self-evaluation.[10] Nurses' notes areoften written in a repetitive manner or exclude meaning-ful data.[20] Also, nursing records often show legal inaccuracies.[16,17]

Numerous documentation forms and an inconvenient system produces data redundancy, inconsistency and irregularity of charting.[20,21] Some formats are too long, repetitious and time-consuming.[4,18,20–23] The forms that are used do not reflect the amount of nursing care pro- vided and do not facilitate communication of family requests.[18] Moreover, they vary from one setting to another without a standardized pattern,[20] and there are no guidelines for a holistic approach to documenting.[13] The nursing documentation system (especially the descriptivestyle) is inappropriate for the workload or responsibilitiesof clinical nurses.[16,17,24] Inaccessibility also causes time tobe lost in searching for charts.[20] These issues all lead to wasted time, high costs and uncomfortable charting.

The related factors

The related factors influencing nursing documentation augment with the complexities of the nursing process.The nursing process is a useful framework for organizing nurs- ing care through assessing, diagnosing, planning, imple- menting and evaluating.[25–27] The nursing process has built- in assumptions about one-on-one relationships between the professional and client whereas nurses in fact work and manage multiple patient assignments and coordinate care with numerous and often conflicting organizational timetables.[28] Moreover, the degree to which the nursingprocess is effective when used in clinical practice remainsquestionable as there is a paucity of research in this area.[29] The terminology of nursing diagnosis is often complex and too closely linked to what might be classed as a med-ical diagnosis.[28,30–32] Besides, the nursing process is char-acterized as rational, linear and problem-solving, so it is inappropriate for nursing practice because nurses use many sources of knowledge and commonly

use 'the insti- tution' as a way of knowing.[33] Consequently, the nursingprocess generates conflict between theoretical situations and practical realities for nurses and might affect the qual- ity of care provided for patients.

The second related factor concerns nurses' competence in charting performance and their attitudes. Nurses might have insufficient knowledge and skill to make nursing diag- noses correctly.[14,34] Sometimes the act of making a nursing diagnoses is perceived as stressful and render them feeling insecure about their skills in performing this action.[6] The study by Oeasomboon found that nurses had insufficient knowledge for writing good nursing care plans.[35] On the other hand, many nurses judge care plans as an unneces- sary burden, separate from and additional to providing ongoing nursing care. Also, care plans are not thought to contribute to the planning or evaluation of care.[36] These negative perceptions might result from the actuality thatnurses value verbal communication or oral traditions to sort out thinking and validate opinions.[20,37] Consequently,nursing documentation is devalued as an unimportant task and quality documentation is not produced.

Another related factor involves nurses' daily tasks thatimpede their charting. Nurses, in general, have manyduties.The work to be done on a nursing unit on any givenday is largely a function of the number of patients, theintensity of treatment and the acuity of patients.[38] How-ever, nurses often cannot provide direct care to patients efficiently because of many other indirect care activities. Approximately 70% cent of their time is taken up withnon-nursing duties.[39–41] Cardona et al.[42] and Urden andRoode[43] further affirm that although nurses spend a cer-tain amount of time on direct nursing care, several indi-rect nursing duties have to be completed. These rangefrom simple to complicated activities and include order-ing supplies, feeding and drug preparation. In particular, nursing documentation differentiates the acuity ofpatients' needs and the time required to complete thedocumentation (this can vary from 30 min to 2–3 h).[20,36]The last factor refers to management issues that com- prises several components such as policy, management style, administrators' support, organizational environ- ment and a support system to ensure quality of documen- tation. Potikosoom's study indicates that nurse managers' involvement and their role as facilitators positively affectnursing note-taking.[13] However, insufficient staff adverselyaffects nurses' charting performance and this is confirmedby the findings of Choonhapran et al. that show that nursesneed more staff to allow them to conduct nursing diag-noses.[34] Other factors influencing nursing documentationinvolve the organizational environment and support for administrators. For example, there is no recognition of the value of charting from other health professionals: doctors irregularly read nurses' notes and other nursing documen- tation is also disregarded.[20] Lack of sufficient support forwriting nursing diagnoses (e.g. consultants and super- vision) leads to decreased motivation for nurses to persevere with continuous charting.[36] Lack of a goodmonitoring system is also seen as an issue for quality chart- ing.[13] It is concluded that support from organizations andadministrators plays an important role in either motivating or limiting nurses' documenting performance.

A review of the literature has described some of the complexities in documentation that most nurses still encounter, both in the documentation system itself and in other related factors. These complexities are elicited either through surveying with questionnaires or by using a qualitative approach.These findings mostly reveal the real- ity of complexities in an international context, not in a specific Thai setting.Thus, this study uses both quantitative and qualitative inquiry through several methods to con- firm the actual complexities in the Thai nursing docu- mentation system. Findings from this study will be advantageous for further extensive nursing documenta- tion development in many other wards in Thailand. It will also assist in dealing with complicated documentation issues to achieve quality of nursing care in the current changing health-care system.

METHODS

Design

This study adopted both qualitative and quantitative methods to confirm existing complexities in nursing docu- mentation in a Thai context. The qualitative approach, informed by and using critical research methods, included interviewing the chairman and a committee who were in charge of a nursing documentation development project;participant observation of nurses' documenting perfor- mance;

undertaking nominal group process and focus group meetings with some nurse participants. Quantitative methods incorporated a time and motion study of nursing activities and auditing of patient charts with nursing data collection forms. The latter was performed in order to examine the completeness of nursing documentation.

Sample

Data for this study were first gathered from the chairman and a committee of a project of nursing documentation development of a private hospital in Bangkok, Thailand. Fifteen professional nurses participated in a nominal group process and focus group meetings. Observation of nursing documenting performance was carried out over a 3-day period. Nursing documentation was audited for completeness and performed by the selection of 35 patient charts with the criteria of having a 3-day admission in hospital without transferring from or referring to other settings or hospitals.

Instruments

Five instruments were used for data collection in this study. An open-ended questionnaire was developed based on the reviewed literature. A participant observation form for nursing documentation was used, based on Lofland's[44] and Chuto's[45] framework. An observation form for a time and motion study was modified from the instruments of Urden and Roode,[43] Watanakit[46] and Tappen et al.[47] Sub- sequently, the guidelines for nursing documenting, used for nominal group technique, were developed, according to the interview data. A completeness of nursing docu- mentation questionnaire checklist and manual were con-structed, based on the instrument of Cheevakasemsook[16] and Mungmool.[17] This instrument was divided into four parts: quantitative completeness, qualitative complete- ness, legal accuracy and continuity of documentation. The testing of the content validity was undertaken by four experts from two nursing education and nursing services. Afterwards, the intra- and interobserver reliability of this instrument was tested using the framework of Ketsigna.[48] The reliability of the four parts were 0.96, 0.94, 0.90 and 0.92, respectively.

Data collection and analysis

To research complicated problems of the nursing docu- mentation system in the medical-surgical setting, it was necessary to use a multiple method analysis. Several methods or sources were used to triangulate the complex- ities of the nursing documentation system in order to find out its validity.[49] The in-depth exploration of these com- plexities began with interviews of the two stakeholders of the project of nursing documentation system: the chair- man and committee. Then, participant observation was undertaken based on that interview, followed by a time and motion study to investigate time allocation for both nursing activities and documentation. Nominal group process was performed[50] for gathering documentation complexities from the nurses who encountered real situations of documentation. Additionally, auditing was undertaken by the researcher to confirm the reality from documentary evidence. Finally, all thematic concerns were concluded through focus group meetings of the study participants. Documentation complexities were gradually developed, step-by-step using several means.

The data analysis involved both quantitative data and qualitative data. Thematic concerns of documentation complexities were coded on notes prior to being inter- preted by the researcher. Another data collection was per- formed through two meetings with critical reflection by nurse participants.[51] Data from the two approaches were shared and compared between the nurse participants and the researcher.[51,52] These qualitative data were analysed by simple 'coding' from participant observation and critical reflection from the participants' focused group meetings. Four main themes of documentation complexities were finally summarized.

The quantitative data were analysed through simple manual calculation into minute per day and minute per event for the time and motion study; and percentage and standard deviation for the completeness of nursing documentation.

RESULTS

Complexities of the existing nursing documentation included six themes: three themes for documentation itself and three for other related factors. Three docu- mentation problems consisted of: (i) disruption of docu- mentation; (ii) incompleteness in charting; and (iii) inappropriate charting. Three related factors included:
(i) limited nurses' competence, motivation and confi- dence; (ii) ineffective nursing procedures; and (iii) inadequate nursing auditing, supervision and staff development.

Disruption of documentation Disruption of documentation resulted from the irrele- vance of the nursing process, no consistency in the stan- dard of documentation and irregular charting. Most nursing documentation lacked nursing diagnoses. The nursing care plan was not identified and documenting was performed with different styles largely based on the nurses' own experience. One nurse stated:

I usually document nurses' notes but never identify any nursing diagnosis or care plan.

With the auditing of patient charts, the data were able to show the incontinuity in documentation (see Table 1)

or 'the patient slept well' was documented although sleep- ing patterns were not being observed. These examples of data on the nurses' note forms described irrelevant data of Completeness of nursing documentation the patients' condition and included inadequate informa- tion for further decision- making for their nursing care. Additionally, these findings relate to the results in Table 1

Table 1 The itemized and total mean scores of completeness of nursing documentation

Completeness of nursing documentation	Mean score ($\bar{X}$)	SD(full score = 100%)
Quantity completeness	40	3.77
Quality completeness	59	7.62
Legal accuracy	37	9.79
Continuity of documentation	37	8.18
Total	44	5.03

when compared with the other three aspects of documen- tation completeness. This resulted because there were no nursing diagnoses or care plans, only an initial assessment, nurses' notes and discharge summary, including some flow sheets for specific purposes (e.g. vital signs meas- urement, diabetic monitoring, and intake and output measurement).

The quantitative approach also confirmed issues in nursing documentation. The data from the audit, which investigated the completeness of nursing documentation, quantity completeness, legal accuracy and continuity of documentation, illustrated mainly □50% even when quality completeness was □50% (Table 1). Legal accuracy and continuity of documentation were rated at the lowest level.

Incompleteness in charting Incompleteness in charting was another problem with theexisting nursing documentation. This explicitly showedunnecessary data and insufficient information about the patients' condition and their nursing care. For example:

The nurse's notes for a male patient who had pneumonia butwas getting better:'This patient has a good appetite, no nau-sea and vomiting, and can sleep well'. (Field note, 4 April 2000)

Another nurse's notes for a female patient who had hyperten- sion stated: 'The patient was conscious, no nausea and vomiting, had a good appetite, and advised to rest on the bed'. (Field note, 7 April 2000)

'No nausea or vomiting' was commonly noted, even when the patient was not being monitored for these symptoms; that indicate both quantitative and qualitative complete- ness were □50%. Also, nursing documentation reflected inadequate understanding by the nurse participants of what was legally and professionally required (see Table 1).

Inappropriate charting Inappropriate charting was the third drawback found in nursing documentation that was raised in the partici-pants' focus group meeting and relevant to theresearcher's participant observation. This kind of chart-ing involved unsuitable data collection forms that led tocharting being repetitious and time-consuming. Forexample, data including medications and vital signs wererecorded on several different nursing data collectionforms: Kardex forms, medication charts and nurses'note forms. Another example was of Kardex forms withone part for recording nursing diagnoses by pencil, innarrative writing.

The above three issues are in regard to the complexities of the documentation system itself. However, alsodiscussed widely through the participant focus groupmeetings were issues such as considerable daily tasks, inadequate staff development, insufficient auditing and supervision for nursing documentation and nurses'limited competencies with restricted motivation and con- fidence in both charting and nursing care. Later, these issues were refined into three main themes: (i) limited nurses' competence, motivation and confidence; (ii) inef- fective nursing procedures; and (iii) inadequate nursing audit and supervision of the documentation system.

Limited nurses' competence, motivation and confidence

Limited nurses' competence, motivation and confidence was one influence that affected the documentation system.For example, one nurse raised the issue that 'We don't know how to create a nursing care plan.' Another nurse revealed that she sometimes cannot provide good care to patients. A number of nurse participants reflected that their charting performance was dubious and that they lacked confidence and motivation in their actions. For instance, one nurse cited:

I'm not sure what I record on the forms. Sometimes I need advice on my charting, but there is no adviser! I just ask my friends and follow their suggestions.

Another nurse made a similar comment:

I just know how to record from my education and my col- leagues at work. I continue the charting according to what others have done before. I don't know if it's correct or not butI think it's O.K. for now.

They described feeling insecure about nursing documen-tation and identified limited access to training as a barrier to effective documentation.

Ineffective nursing procedures Ineffective nursing procedures had a great effect on nurs-ing daily tasks.This was confirmed by the results from thefirst time and motion study carried out that provided the researcher and the nurse participants with an indication ofthe need to improve time allocation for nursing activities(see Table 2). The data showed that the majority of timewas spent on five nursing activities: nursing documenta-tion, medical orders transcription, medication prepara-tion, medication administration and patient chart reviews.These were identified as practices that were labour andtime intensive.

One example that showed an inefficient approach to nursing practice was medication

administration. The nurse participants described having to check medica-tions several times before they could be administered. The workload of the nurses was identified as impacting negatively on their practice. The nurse participantsstated that nursing workloads were high and that they had insufficient time to complete the required documentation.

Inadequate nursing audit, supervision and staff development

Inadequate nursing audit, supervision and staff develop-ment that involve the quality of nursing documentation were also addressed as important issues for nurses. Thenurse participants recognized they were not adequately trained or supervised, nor did they feel they reflected crit- ically enough on their practice, as they did not have an effi- cient auditing approach. One nurse complained:

I have been trained before in the nursing process, but not in documenting performance.

Similarly, another nurse stated this situation:

I was educated in the nursing process but I have not been trained in nursing documentation. Moreover, we are rarely evaluated in the effectiveness of our documentation.

These findings confirm the importance of staff develop- ment and regular support. Some nurses raised the issue of auditing being done irregularly in the clinical setting andthis was verified by the researcher during her participantobservation.

Nursing auditing is used to examine the quality of carethat should incorporate defined standards to serve quality improvement.[53] One nurse participant in the participants' meeting stated that:

There is no supervision to ensure our documenting perfor- mance on the ward.

Another nurse participant suggested that:

I dare not do nursing diagnoses because I'm not sure if I do them correctly.

Table 2 Time allocation for five selected nursing activities

Nursing activities	Minute/day	Number of events	Minute/event
Nursing documentation	1253	68	18.4
Medication administration directly to patient	539	78	6.9
Medication preparation	495	110	4.5
Medical orders transcription	390	34	13.8
Patient chart reviewsf	168	6	28.0

DISCUSSION

All six issues regarding nursing documentation can be summarized as three drawbacks in documentation itself (disruption of documentation, incompleteness in charting and inappropriate charting), and three related influences (limited nurses' competence, motivation and confidence; ineffective nursing procedures; and inadequate nursing auditing). Although the findings of this study were similarto those found in the literature review, there were some identifiable differences: nurses' competence, motivationand confidence; ineffective nursing procedures; and inad- equate auditing of the documentation, supervision and staff development. In contrast, the literature mainly showed related factors regarding complexities of the nursing process, nurses' competence in charting and numerous nurses' daily tasks.

'Disruption of documentation' in this study involved irrelevance of the nursing process and the

findings of Ehnfors and Smedby[54] and Gosondilock[9] confirm this.Irregular charting from a similar perspective lacks nursing diagnoses, which is the second stage of the nursing pro- cess. In addition, it has been ascertained from a number of studies that nurses do not write nursing care plans consistently.[16,17] 'Incompeteness in charting' included ina- dequate information for decision-making in nursing careand this is similar to the findings from the study of Ratchukul.[55] It is well known that, in general, nursing documentation should serve as a source for helping to decide how to care holistically for each individual patient.[4,5,56] 'Inappropriate charting' in this study showed mostly repetitious and narrative patterns that caused inef- fective charting. Iyer and Camp,[2] Fischbach[4] and Taylor et al. [26] contend that narrative writing lacks structure. Thus, it is difficult to show a relationship between data and narrative notes. Also, it is found to be time-consuming and difficult to check through days and weeks of narrative notes to find a specific problem or data, its treatment and client response.

In this study, nurses' competence, motivation and con- fidence in documenting performance were found to be insufficient.The limitation of nurses' competence perhaps resulted from insufficient knowledge as Irwin et al.[57] found, especially lack of knowledge about the nursing process as a core foundation for charting.[58,59] Additionally, nurses felt a lack of motivation and confidence because of irregular supervision[6] and no monitoring system[13] that both affected their confidence in charting. Ineffectivenursing procedures impeded satisfactory performance in their daily tasks and required further improvement, sim-ilar to the study of Pedersen.[60] With regard to inadequate nursing audit, supervision and staff development, these deficiencies greatly influenced nursing documentation development, particularly staff development, as affirmed by the study of Törnkvist et al.[58] The study of Potikosoom confirmed the importance of regular auditing for docu- mentation development.[13]

CONCLUSION

The six issues found in this study regarding nursing doc- umentation need further development to achieve an effec- tive system. These issues could be improved at clinical level with effective management approaches that include the development of a new nursing documentation system, further education and training of nurses, redesigning a number of ineffective nursing activities, the organizing of supervision to ensure complete performance of documen- tation and regular auditing to work towards better docu-mentation overall.

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