Evaluation of nursing documentation on patient hygienic care

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This study was conducted to evaluate nursing documentation on patient hygienic care and to analyze the consistency between actual care given by nurses and that of documented in nursing record. Data were collected from 85 nurses employed at critical care units, on whom 255 sets of observations were performed through a structured participant observation form, which could be used to record the observation episodes and to audit nursing records. Results indicated that the most frequent performed hygienic care was oral care, perianal care, hand washing and bed bathing. The consistency between actual patient hygienic care and its documentation was 77.6%. The quality of nursing records was poor and inadequate to reflect individualized nursing care. Results suggest that more emphasis is needed in nursing practice and nursing education on the quality of record keeping in nursing to increase its evidential value.

Key words: hygiene, nursing care, nursing documentation, patients, record keeping.

INTRODUCTION

The nursing process is a rational and systematic problem-solving approach used as a scientific framework to organize individualized nursing care by identifying, preventing or treating actual or potential health problems through the phases of assessment, diagnosis, planning, implementation and evaluation. The nursing process is an ongoing process as the evaluation phase requires reassessment of the patient and documentation on whether the caring needs of patient have been met or not. Documentation is a vital component of all phases of nursing process.1,2

Documentation is any written or electronically generated information about a client that describes the care or service provided to that client. Health records might be paper documents or electronic documents, such as electronic medical records, faxes, e-mails, audio or video tapes and images.3

Documentation is a professional and legal responsibility of nurses. Nursing documentation serves for ensuring continuity of care through communication, for the evaluation of the quality, efficiency and effectiveness of patient care, and for providing evidence for legal, ethical, financial or quality-assurance purposes and research. Documentation also provides the database for planning future health care, and contributes to nursing education and knowledge base.1–6

At critical care environments, such as intensive care units and emergency departments, nursing deals with
life-threatening problems that require continuous assessment and intense therapeutic measures and interventions. Failure to document any aspects of assessment and therapeutic procedures might threaten the continuity of care and patient safety. Therefore, nursing documentation is essential for ethical nursing practice and for protection of patients’ rights.6

In order to be used as evidences for legal, professional, ethical and financial purposes, the quality of documents is important. Documentation should be comprehensive, complete, accurate, factual, concise, timely and representative of professional observations and assessments. Records should identify the person who provided or documented the care.1–57 However, previous studies have demonstrated that nursing documentation is inadequate, incomplete or inappropriate.8–10 In a meta-synthesis study of 14 qualitative research reports, Kärkkäinen et al.10 showed that individualized patient care is not visible in nurses’ documentation of care, and ethical questions concerning the substance of nursing care documentation are not discussed. Studies carried out in Turkey also indicated that nursing documentation includes only records on assessment of vital signs and administration of medications, but individualized patient care is not visible in nurses’ documentation.11–13

The provision of patient hygiene is one of the most frequently performed individualized nursing care activities, which is usually decided by the sole judgement of the caring nurse. It is generally performed at critical care units such as intensive care units or neurology clinics where patients are mechanically ventilated or confined in bed due to life-threatening problems. Patient hygiene is associated with many benefits including removal of bacteria and perspiration from the skin, reducing risk of infection, stimulation of blood circulation, providing comfort and relaxation and improving the patient’s self-image and emotional well-being. It also provides nurse the opportunity to interact with the patient and assess the patient’s medical condition and physical state. Furthermore, the provision of patient hygienic care is one of the visible nursing care activities if documented. However, few studies have demonstrated that hygienic care activities of nurses are also poorly documented.11,13 The lack of proper and/or poor documentation in nursing can negatively impact patient care and can impede the effectiveness, quality and visibility of nursing work. There is a lack of empirical data specifically on nursing documentation of patient hygienic care. Thus, this study aims to contribute to the debate about nursing records by reflecting the nurses’ record keeping practices on patient hygienic care. In particular, the aims were:

1. To describe the frequency patient hygienic care activities of nurses at the patient’s bedside of critically care units.
2. To analyze the consistency between actual care given by nurses and that of documented in nursing record.
3. To evaluate the quality of nurses’ general record keeping practices.

METHODS
This descriptive study combined a structured observational study with an audit of nursing records. We adopted a descriptive, observational design because our main aim was to describe the actual patient hygienic care activities and record keeping practices of nurses, rather than exploring from the perspectives of participants or retrospectively auditing the existing records.

Study settings
The study was conducted at six intensive care units; including coronary care unit, thorax and cardiovascular intensive care unit, medical care intensive unit, neonatal intensive care unit, neurosurgical intensive care unit, and postanaesthesia care unit; and neurological clinic and thorax and lung disease clinic of a large urban university-affiliated teaching hospital in Izmir, Turkey. The hospital has a total of 950 bed capacity, and 560 nurses were employed. Critically care units were selected as study settings because nurses spent most of their time on direct nursing care in all critical care units and patient hygienic care was practiced more frequently, which could be particularly informative with respect to this study.

At the time when the study was conducted, the hospital did not use electronic documentation, but standard paper-based patient files or nursing data forms were used for documentation.

Sample
The target population for this study was nurses working at critical care units where patients are at most in need for hygienic care. A convenience sample of 98 nurses was drawn from the study settings, of whom 73 were employed at intensive care units, 10 nurses at thorax and lung disease clinic and 15 nurses at the neurology clinic. Thirteen nurses who were working at coronary care unit
were excluded from the study sample because they had been included for the pilot study. Thus our sampling included 85 nurses.

**Preliminary investigation**
A preliminary investigation has been conducted through the unstructured observation of 10 volunteered nurses at medical care unit of Hacettepe University Hospital, Ankara, for 1 month. The physical structure of medical care unit and the work schedules of nurses were similar to those of study settings. The aims of this preliminary investigation was to develop first draft of data collection form by identifying the frequencies of hygienic care activities performed by one nurse per day, the amount of time spent on per hygienic care and determining their record keeping practices.

During this preliminary investigation, we identified that nursing documentation included standard forms, which requires charting among a list of numerous nursing activities mostly about the vital signs, food and fluid intake and outputs, medical treatment schedule and hygienic care of patients. Several scales were also used for assessment of pain and conscious state of patients, for example, Numeric Pain Rating Scale and Glasgow Coma Scale.

Patient hygienic care were performed during the day time, and the frequency of patient hygienic care activities provided by one nurse within a day was one to three with an amount of 15 min to 1 h depending on the kind of hygienic care. Although nursing documentation was recognized as an important professional task, the intensity of nurses’ daily work and the acuity of patients impeded complete, accurate and regular record keeping.

**Instrument and pilot study**
Following the preliminary investigation, we developed an instrument that consisted of questions about nurses’ demographics and a structured observation form, which could be used both to record the observed patient hygienic care activity and to audit nursing records of patient hygienic care.

The format of the participant observation form included a definitive list of patient hygienic care that should be observed and predefined categories that contain the name of hygienic care, equipment or agents used in care, the date and time, name and signature of the nurse who provided the care and the outcome of care or patient reaction. Each category could be checked and rated in terms of completeness, accurateness and timeliness of the record by auditing of patient charts with nursing data. The face validity of structured participant observation form was undertaken by three experts from nursing education, and the form was revised based on their suggestions. We were unable to examine psychometric properties of the instrument; rather than assigning numeric values or scores to observed behaviours, data from the observation form was analyzed by using frequency counts and percentages.

In order to test the questionnaire and structured observation form, a pilot field test was carried out in March 2005 through the observation of 13 participants who were working at a coronary care unit of a teaching hospital in Izmir. The structure of the nurses’ working schedule encompassed two shifts that cover the day (8.00 am to 8.00 pm) and night (8.00 pm to 8.00 am). However, because patient hygienic care was usually performed at any time during the daytime, the observation schedule included continuous monitoring from 8.00 am to 8.00 pm. Following this pilot study, necessary improvements has been made on the structured observation form, and the observation schedule was finalized.

**Data collection**
Data collection was implemented between the dates of 30 March and 30 July 2005 through 255 observation episodes of 85 nurses. Each nurse was continuously observed by one researcher without any interference from 8.00 am to 8.00 pm until the completion of three patient hygienic care activities. Each observed patient hygienic care was recorded immediately in the structured observation form, and then the nursing record was examined for predefined record keeping criteria. Upon completion of each observation period, each nurse was asked to fill out the questionnaire.

**Ethical considerations**
Written permission for this study was obtained from the Medical Directories of Hacettepe University Adult Hospital, Ankara, and Dokuz Eylul University Hospital. Nurses were informed about the aims of the study and that their patient hygienic care activities will be observed. Written informed consent was obtained from all nurses and the confidentiality and anonymity of participants were ensured.

**Data analysis**
The SPSS version 13.00 for Windows (SPSS Inc, Chicago, USA), was used for data entry and statistical analysis.
Descriptive statistics were performed for data analysis, and the association between demographic variables and recorded activities were calculated using Fisher exact chi-square test. *P*-values under 0.05 were considered to be statistically significant.

**RESULTS**

Table 1 shows the demographic characteristics of the study participants. The age of about 49.4% of the participants, ranged from 27 to 31 years, 42.4% ranged from 22 to 26 years and the remaining was above the age of 32 years. They had different levels of nursing education, including baccalaureate degree (60.0 %), associates degree (25.9 %) and diploma from vocational health school. Approximately half (49.4) of the participants had a clinical and or intensive care experience for up to 5 years, and most participants (69.4%) were working at the same clinic for 1–5 years. About 28.2% of participants were working at postanaesthesia care unit, 10.6% were working at thorax and lung disease clinic, whereas the nurse staffing of other intensive care units and clinics were equivalent with a number of 13 for each unit. Most participants (62.4%) were working full time in day shift from 8.00 am to 8.00 pm.

Figure 1 shows the frequency and documentation of observed patient hygienic care activities of nurses. A total of 85 nurses were observed on whom 255 sets of observations were performed. Oral care (*n* = 64) was the most frequently recorded observation followed by the names of other patient hygienic care activities including perianal care, face, hand, foot care and eye care and bed bathing. Most of the observed patient hygienic care activities (77.6%) were recorded, of those majority included foot care (90%), perianal care (90%), bed bathing (88.2%) and oral care (87.5). Ear care could not be observed during this study, and three observations on dressing the patient were not recorded. Most of undocumented patient hygienic care activities included nose care (63.6%), eye care (42.8%) and face care despite which had been performed.
Table 2 shows some of record keeping qualities of documented patient hygienic care activities. On standardized nursing documentation forms, the names of hygienic care activities, and nurse who provided care were recorded completely. However, the names of nurses were recorded without signature, and none of patient hygienic care activities included any information about the view or reaction of the patient to the care provided, and except for a small percentage of oral care (5.3), none of the documented activities included the equipment and cleansing agents used during the hygienic care, despite which the majority of patient hygienic care were performed with soap or liquid soap and a basin of water.

During observations, the majority of oral care was performed by aspirating or irrigating the mouth or using foam swabs and oral rinsing agents either 0.9% normal saline or diluted sodium bicarbonate instead of toothbrush and toothpaste. None of the oral rinsed agents were recorded by participants. The time of most hygienic care activities were also incomplete or inaccurate.

Of those 198 documented observations, only 37 included handwritten nursing notes. Thus, although we did not show the data about the quality of nursing notes on the table, observation results indicated that most of the nursing notes were readable, but inconsistent and inadequate for reflecting nursing care and psychosocial support, any change in the condition of the patient and patient’s response to treatment or care. Nursing notes were also not written in a logical and sequential manner.

Although not included in structured observation form, during this study, we also audited patient charts and nursing notes for nursing care plans. However, despite the fact that nursing directory emphasized the importance of nursing process and the study settings incorporated standardized nursing care plans, none of the nurses used standard nursing care plans or made an individualistic nursing care plan for their patients.

Statistical analysis indicated that the frequency of documentation among nurses who were working up to 5 years were higher than other years of clinical experience ($P < 0.05$). There was no association between the documentation and nurses’ demographical variables ($P > 0.05$).

**DISCUSSION**

This study was carried out to describe the frequency of patient hygienic care activities and to evaluate its documentation through 255 observations and auditing the
nursing records of 85 nurses, who were working at intensive care units, thorax and lung disease clinic and neurology clinic.

**Limitations of this study**

Before discussing the main results of this study, several methodological limitations should be mentioned. A major limitation concerned with the non-random convenient sampling technique used in this study, whereby only nurses who had been working at critical care units were recruited. Because the sample is not representative of all practicing nurses, the generalizability of our results is limited. Second limitation was lack of psychometric assessment of the structured participant observation form used in this study. Although the observation form was prepared after a preliminary investigation and the face validity was established by consulting with experts and pretesting before data collection, we did not examine the psychometric characteristics of the observation form. Key concepts of psychometric assessment, the validity and reliability, are not properties of the instrument, but are related to the interpretation of scores.\(^\text{14}\) As we did not obtain scores from observations, we cannot comment on validity and reliability of our results. However, the results of observational studies are, by their very nature, impossible to repeat because of various factors that might change over time and influence repeatability. These could include institutional policies, heavy workload, inadequate supply of nurses as well as patient-related factors such as the severity of illness and need for hygienic care. Third limitation was related to observational method. Observation was time consuming and complex with respect to data collection and analysis. In addition, nurses were continuously observed at critically care units, a work environment equipped with numerous sophisticated machines and a stressful work context with increased acuity and complexity of patients who needed constant attention. Therefore, during the initial period of observations, most nurses were uncomfortable, some of them tried to provide good hygienic care for their patients and record in detail, but this appeared to be reduced through use of second and third observations. Although over time all nurses became accustomed to the experience, it is possible that nurses tend to behave as the observer would like it, and some nurses might have performed and recorded more hygienic care than they did previously. Fourth limitation was related to auditing the nursing records to detect the quality of documentation. Although numerous audit tools have been developed,\(^\text{16-17}\) none of these tools were specific to audit patient hygienic activities. Thus, in this study, we recorded the audited qualities of documentation on structured observation form. A more comprehensive, systematic auditing tool specific to patient hygienic care provided by nurses would provide more accurate and objective data. However, as the first study is specific to patient hygienic care activities of nurses at critical care units, this study contributes to empirical nursing literature on nursing documentation through use of observation, which had the advantage of obtaining factual data on what nurses actually do for provision of patients’ hygienic care rather than what they report or want to say.

**Discussion of main results**

In this study, oral care was the most frequently performed hygienic care followed by the names of perianal care, hand, foot, eye care and bed bathing. This result is valuable for patient care because providing hygienic care for patients is among the fundamental nursing activities, and patients at critical care units are at most in need as many of them were not able to maintain personal hygiene and prone to oral and skin problems due to their medical and physical conditions.

Our results on audited records indicated that although some of the patient hygienic cares were undocumented despite which they had been performed by nurses, the consistency between nursing hygienic care and its documentation was 77.6%. This finding is incongruent with the previous studies reporting that patient hygienic care activities of nurses were less widely recorded,\(^\text{11-13}\) but consistent with the results of a qualitative study of Penaforte and Martins,\(^\text{18}\) who showed that hygiene care activities are present in the shift change reports. The observational study of De Marinis et al.\(^\text{19}\) showed that nursing records reported 37% of the assessments and 45% of the interventions. In their study, the consistency between nursing activities and their documentation was only 40%. Despite the fact that we also found a significant proportion of inconsistency (22.6%) between the actual patient hygienic care performed by nurses and its documentation, this study highlighted the visibility of patient hygienic care activities of nurses on nursing records. However, the qualities of nursing records were poor in terms of completeness, correctness and timeliness, and were inadequate to reflect an individualized nursing care and patients’ involvement in their care. This result support previous studies reporting that nursing
documentation is inadequate, inconsistent and invisible for individualized patient care. In a retrospective study, Setz and Innocenzo showed that majority of nursing documentation was acceptable (64.7%), but only 8.7% of nursing documentation was of good quality.

Poor documentation undermines patient care and threatens the safety of patients, in particular at intensive care units where most patients are critically ill. Inadequate and poor quality nursing records cannot be used as a tool for facilitating communication; promoting the quality and continuity of nursing care and meeting professional and legal standards. Therefore, more emphasis is needed for the importance of documentation and record keeping qualities in nursing practice, nursing education and continuing education of nurses.

CONCLUSION

This study indicated that most of patient hygienic care performed by nurses was recorded, but the inconsistency between performed activities and those of recorded, and the poor quality of documentation requires attention of clinical nurses, nurse managers and educators. Further studies across a larger sample using well-developed auditing and observation tools with good psychometric characteristics specific to identify nurses’ activities on patient hygienic care are needed to investigate the nurses’ record keeping practice.

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