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DOCUMENTATION AND THE TRANSFER OF CLINICAL INFORMATION IN TWO AGED CARE SETTINGS

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Key words: work sampling, documentation, transfer of clinical information, aged care

BACKGROUND:

Increasingly, documentation, both formal and informal, is being undertaken by nurses using a range of modalities. In Australia there is a sense that the demand for this in the aged care sector is increasing in line with requirements of funding agencies. However, the scope of this activity and its impact on nursing workload in aged care facilities has not been rigorously investigated. Funding of aged care facilities in the public hospital system in Australia is dependent on documentation of care.

Objective:

The purpose of this study was to determine the frequency and time of day that documentation and transfer of clinical information activities occurred for nurses of all skill levels in two aged care facilities in New South Wales, Australia.

Design:

Work sampling of direct care, indirect care, unit-related activities and personal time.

Setting:

Two hospitals with aged care facilities near Sydney, Australia

Subjects:

One hundred and six nurses.

Results:

16,395 observations of nursing activities were recorded. The transfer of clinical information between

health care professionals comprises a large part of the nurse's working day. It comprised between 37 and 38% in this study, but the time of day in which it took place differed between the two hospitals.

Conclusion:

Documentation needs to be seen as an integral part of care by managers and clinicians. Both would wish to ensure that it is undertaken in the most efficient and effective manner to allow the necessary time for direct care. More detailed understanding may allow clinical unit managers to re-structure the workday in terms of documentation to achieve greater efficiencies or effective use of nursing time.

INTRODUCTION

Nursing roles in Australia are continuing to evolve and expand into more specialised clinical practice areas, requiring skills that are increasingly more complex. As the Australian health care system focuses more on outcomes, greater accountability for patient care is being expected of nurses. More comprehensive documentation is then required because the care documented is defined as the nursing care given (Malek and Oliveri 1996).

The explosion of information technology and continuing budgetary constraints are also influencing clinical documentation and health care information systems. In Australian aged care institutions it is even more important to document treatment plans and care needs because levels of funding are determined from these (Meiner 1999). Added to this is the need to provide a legal record across a continuum of care that meets the expectations of the health care system, clinicians and

consumers (Savy 1999). Therefore, understanding patterns of documentation - the frequency and time taken - is vital to sustaining the integrity not only of the nursing services, but of the quality of the services provided overall.

This paper describes a study to determine the frequency and time of day that documentation and transfer of clinical information activities occurred for nurses of all skill levels in two aged care facilities in New South Wales, Australia. The facilities were chosen as a convenience sample and represent institutional aged care facilities not the nursing home sector. More documentation, both formal and informal, is now undertaken by nurses using more modalities (written methods, tape recorders and computers).

LITERATURE REVIEW

Nurses in aged care sense that increasing documentation demands are drawing them further away from direct care. The scope of this activity and its impact on nursing workload in aged care facilities, and more importantly the time 'left over' for direct patient care with older people who have more complex care needs (Palmar and Short 1994) has not been rigorously investigated.

While there has been some recent attention to this area in Australia (Moyle et al 2002; Pelletier et al 2002), the Australian literature provides little insight into the proportion of time nurses (of all skill levels) spend in this activity. One study was conducted in Australia but the report was not widely disseminated (Hovenga and Hindmarsh 1996). Their research found nurses spent 21% of their time handling written information and a further 28% of their time engaged in verbal communication among themselves or with patients, other health professionals or visitors. Overseas estimates indicate nurses spend as much as 60% of their time manually documenting or charting the various components of the nursing process (Windel 1994). Other estimates range from 13.7% through to 50% (Pabst et al 1996). None of these studies focused on the aged care setting.

However, Martin et al (1999) found the average time nurses spent on documentation in certain units of a 1000-bed long-term care facility in Canada was 56 minutes per shift, or 12% of the working day.

In Australia, an instrument termed the Resident Classification Scale (RCS) must be completed on all long term care patients to allocate a care category, which with the individual's financial status, influences the funding given by the Australian Government (Commonwealth Department of Health and Family Services 1998). The care classification appraisal must be based on written evidence about the care needs and care interventions provided for the resident over a period of at least 21 days. To achieve accurate classification, the documentation must be of good quality and quite detailed

and as such requires considerable nursing time. This again takes staff away from direct care.

While the value of nursing documentation is recognised as being critical to quality professional care (Hoban 2003), it is still an unpopular activity, particularly in long-term care facilities (Martin et al 1999). It is a source of job dissatisfaction according to Buelow and Crujssen (2002). Savy (1999) posited that traditional nursing work takes precedence over writing notes. Consequently, this activity is undertaken at the end of the shift after direct patient care activities are completed. Furthermore, she argues that this leads to inadequate attention being given to documentation tasks with serious implications for nurses in aged care settings in terms of professional standing, patient outcomes and funding. A Scandinavian study endeavoured to establish the link between documentation and the quality of care given and noted that while 73% of care plans were up to date there were substantial gaps in recording cognitive states and functional ability and that further educational efforts and specific forms were needed (Voutilainen et al 2004).

Many health care providers, including many nurses themselves, do not see nursing documentation as important, especially as nursing documentation is often lost or discarded after discharge (Meuth 1999). Furthermore, documentation is perceived to take time away from nursing care (Buelow and Crujssen 2002) rather than being perceived as an integral part of nursing practice and care. As Moloney and Maggs (1999, p.51) pointed out, however, 'the fundamental importance of record keeping as a foundation of care cannot be emphasised too strongly. Accurate, complete and up-to-date records represent a vital component of high quality care'. Moreover, nursing documentation is the evidence of the bearing nurses have on recovery relative to the intervention by doctors or physiotherapists; therefore incomplete or inaccurate record-keeping impacts on the survival of the profession as a whole (Sibbald 1998). Alford (2003), taking a legal perspective, argues that while documenting completely and accurately is deemed to be standard nursing practice, many nurses do not seem to understand that it is critical to the quality of care and that failure to document can have consequences both lethal and legal (Sullivan 2000).

METHODOLOGY

Work sampling has been widely used to determine how nurses spend their time (Gagnon and Waghorn 1996; Urden and Roode 1997; Upenieks 1998; Pelletier et al 2003; Duffield et al 2003; Korst et al 2003). A large number of observations of staff work are taken at random intervals - during a sample of hours, shifts or days - and classified into a pre-defined set of categories (Pelletier et al 2003; Korst et al 2003). While the exact time spent in activities is not recorded, exact activities are (Urden and Roode 1997), the assumption being that a small number

of events will follow the same distribution for a longer time period as for a shorter one.

Setting

The research was undertaken in two hospitals, selected because of their aged care facilities, in and near Sydney, Australia. Hospital (A) comprised three-inpatient aged care wards. Two wards (each 35 beds) were for older patients requiring rehabilitation following, for example, a stroke or a motor vehicle accident. Hospital (B) comprised two aged care wards (63 beds), one for rehabilitation care (30 beds) and the other for sub-acute medical care (33 beds). Ethics approval was granted by the university and both area health services.

Instrument

The instrument used was adapted for the Australian context by Wood (1999) based on Urden and Roode's (1997) tool, with their consent. Within the instrument there are four major pre-defined categories: direct care, indirect care, unit-related activities and personal time. Activities in these major categories are itemised in table 1.

Procedure

Data collectors were trained during a one-hour didactic training session (consisting of a general overview of work sampling and detailed training in definitions and specific activity codes), followed by a two-hour practice run. Inter-rater reliability (IRR) was checked (83.3% at Hospital A and 85.6% at Hospital B). At various times throughout the data collection period, random and informal IRR checks were conducted between two collectors when one observer was finishing a two-hour block and another commencing, with perfect concurrence resulting.

All data collectors were nurses which the researchers felt would enable more effective coding of activities as nursing is complex and the actual activity may be 'hidden'. Rarely was it necessary for the observers to clarify an activity with the staff member being observed. The skill level of the staff was noted at the time of observation.

Observation of nursing activities on each ward took place over several months at randomly allocated sessions, each in two-hour time slots. During the times 7am to 5pm

Monday to Friday four weeks of data were collected for Hospital A and two weeks for Hospital B. Hospital A had fewer nursing staff than Hospital B. Daytime hours were selected as the maximum range of activities occurs during day shifts.

Observations were categorised into specified activity categories (see table 1) and recorded on specially designed data collection sheets. Data collection commenced on the hour and at 10-minute intervals thereafter as per the protocol used by Urden and Roode (1997) and Wood (1999). Many activities in direct and indirect care would automatically have a documentation component, for example, administering a medication. Yet the nurse may not actually have been signing for the drug at the time observed. To give more detailed information on the actual incidence of nurses 'putting pen to paper' the documentation component itself was recorded as supplementary information in terms of place and time as a separate coded entry. For example, a nurse might be observed writing a patient care plan at 10am by the patient's bedside. This would be coded as co-ordination of care/care planning with a side note - bedside. Following the data collection, the results were entered and analysed using the Statistical Package for Social Sciences (SPSS).

All nursing staff working at any time on any of the ward areas in the study were invited to consent to take part. Interactive information sessions about the nature and purpose of the study were held at each hospital prior to the start of data collection and a participant information sheet was circulated. Further participants were recruited on a day by day basis as the study progressed. Interaction between researchers and participants was kept to a minimum except where clarification was required regarding the whereabouts of a staff member or activity categories.

RESULTS

A total of 51 nurses at Hospital A (94.9% of the observations) and 55 nurses at Hospital B (91.0% of the observations) consented to participate in the study. Skill mix differed in both hospitals. For example, Hospital A comprised a nursing unit manager in each ward, registered nurses and enrolled nurses, and occasionally, trainee enrolled nurses and assistants in nursing (unregulated

Table 1: Activity codes by category (direct care, indirect care, unit-related activities and personal time)

DIRECT CARE	INDIRECT CARE	UNIT-RELATED	PERSONAL
Admission/assessment	Coordination of care: Care planning/Critical pathways	Clerical	Personal time
Assisting with procedures	Coordination of care: Rounds, team meetings	Errands off-unit	
Hygiene	Communication/information	Environmental cleaning	
Medication/IV administration	Computer: Data entry/retrieval	Meetings and administration	
Nutrition/elimination	Medication/IV preparation	Supplies, check, re-stock	
Patient mobility	Progress notes/discharge notes	Teaching/in-service	
Patient/family interaction	Room/equipment setup/cleaning		
Procedures	Verbal report/handover		
Specimen collection/testing			
Transporting patient			

personnel). In Hospital B, no-one was in the assistant in nursing category, but there were clinical nurse specialists on each ward.

A total of 16,395 observations (9,570 in Hospital A and 6,825 in Hospital B) of nursing activities were recorded. These are presented by category in figure 1. The percentage of observed pen-to-paper documentation of these activities for each category is presented in figure 2. These occurred at approximately the same rate - 7.5% for Hospital A and 6.8% for Hospital B. While their proportions of direct care documentation were very similar, differences arose with the proportions of documentation observed in indirect care (with Hospital B spending approximately 12% more than Hospital A) and in unit-related care (where the reverse was true). The spread of observed documentation in the various categories of care over the day can be seen in figures 3, 4, and 5.

Documentation peaked in direct care activities (figure 3) in the late morning for Hospital A, and mid-afternoon (towards the end of the day shift) for Hospital B. Interestingly, observed documentation decreases rapidly in Hospital A at the time it increases in Hospital B.

In indirect care (figure 4), observed documentation for the most part increased throughout the morning and peaked at both hospitals in the early afternoon.

The percentage of documentation related to unit-related care activities was higher in Hospital B between 7-8am with smaller peaks between 9-10am and 1-2pm (figure 5). Both hospitals showed a decrease in unit-related documentation in the middle of the day, with both rising in the early-to-mid afternoon.

What is interesting to note in these graphs is how observed documentation decreases sharply at Hospital A at 1pm (during the lunch break), while at Hospital B, it hardly dips at all during this period (with the exception of unit-related documentation which was not observed between 11am and 1pm) and, in the case of indirect care documentation, actually rises. This is related to differences in approach to staffing. Hospital B has staff who work 'short shifts' and thus commence at different times during the day while Hospital A has the traditional three shifts (7am-3pm, 3pm-11pm and 11pm-7am).

Observations were made of verbal communication and other methods of transferring clinical information. In figure 6, a comparison of the various forms of transfer of clinical information is depicted. It is clear that verbal communication with professional staff dominated the other forms of communication of information about patients, including handover and care planning.

The location where written documentation took place was also recorded on the instruments (figure 7). The nurses' station was by far the most frequently utilised site for both hospitals for recording patient information. Hospital A's greater use of the nursing unit manager's office is indicative of more unit-related documentation being done there than in Hospital B. High use of nursing unit desk areas for charting and general discussion as staff congregate there has raised issues of patient privacy and it may be a practice to overtly move away from for that reason. Hospital B's greater use of the bedside areas may be explained by one of its wards being sub-acute care. The documentation observed in the dining room of both institutions reflected the practice of medication administration in that area.

Figure 1: Percentage of total observations by category

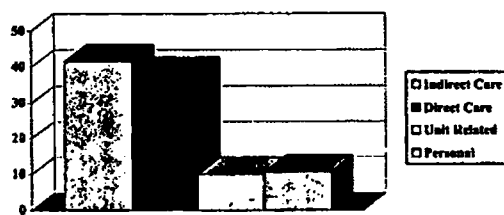


Figure 2: Percentage of observed documentation for each category of care

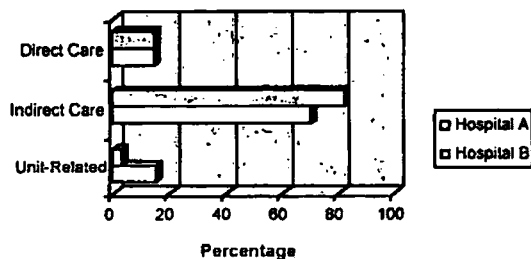


Figure 3: Comparison of % of observed direct care documentation by hour of day by hospital

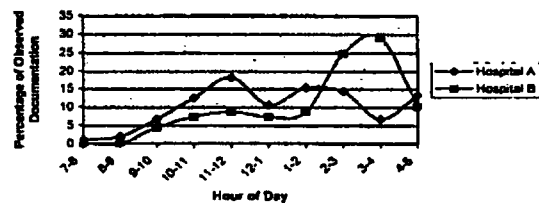


Figure 4: Comparison of % of observed indirect care documentation by hour of day by hospital

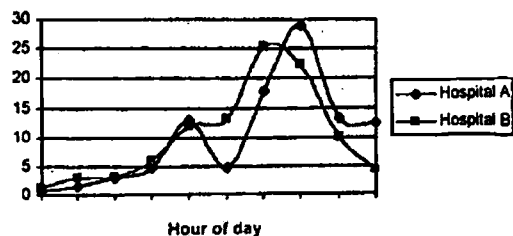
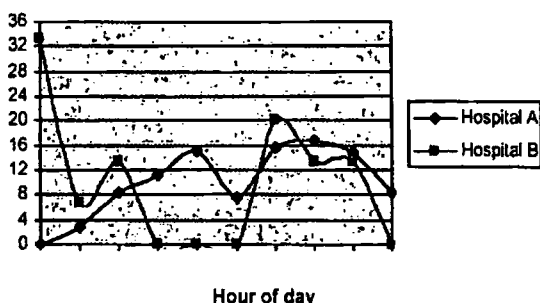


Figure 5: Comparison of % of observed unit-related documentation by hour of day by hospital



DISCUSSION

This paper is reporting on documentation observed by the data collectors when completing the tool which recorded all nursing activities. The finding that written (pen to paper) documentation occurred in only 7% of observations was lower than that found for documentation in other studies (Moody and Synder 1995; Wyatt 1995; Mann et al 1999). It should be noted that documentation of nursing activities was also embedded in other activities within the instrument, for example the administration of medications. Figure 7 is an attempt to demonstrate this. If the activities denoted there are included in the overall calculation of documentation and transference of clinical information, then Hospital A recorded rates of 38.1%, and Hospital B 37.6% of activities overall spent in the transfer of clinical information. These are perhaps more valid figures for imparting clinical information, as they incorporate substantially more than observed, pen-to-paper written documentation. Indeed, according to Deeny and McKenna (1994), written documentation is undervalued by nurses, who place greater emphasis on the contribution of verbal communication to quality patient care. This may be because they feel uneasy about their

written ideas being the subject of scrutiny by those more critical (House and Bailey 1992).

The image of written documentation as secondary to more direct patient care activities has to some extent been validated by this research. The level of time in documentation in these settings is not much different to that of other studies. These findings may therefore be heartening for those nurses who felt their direct care time was being eroded significantly. The patterns warrant some analysis by nurse unit managers who may wish, with clinicians, to plan some re-structuring of shift patterns or physical facilities, especially if computerised clinical systems are being considered. For example, the likely reason for the preponderance of observed documentation taking place in late morning and/or mid-afternoon is that patients' personal care requirements were less at these times. Nurses were able to attend to their documentation activities, but were still liable to be called to a patient's bedside during these times. In the afternoon, what is perceived as a 'traditional' time for nurses to attend to progress notes and care plans occurred during recognised shift overlaps. Figures 2, 3 and 4 also indicate that documentation is established as an activity taking place after patient contact activities have occurred or during the quieter times of the day. Documentation occurred whenever opportunities arose rather than as a structured part of a nurse's working day. However, this needs to be seen from the perspective that, while some other professions within the hospital setting perform their documentation away from the clinical areas, without disruption, nurses are on call and frequently interrupted.

These more traditional patterns of charting activities are in contrast to recent trends in some settings to chart activities immediately, in effect almost in real time. This is particularly true in areas using computerised information systems. Such 'real time' charting may be more applicable to acute care settings where there is likely to be more multidisciplinary activity and movement of patients to and from the ward areas.

Figure 6: Transfer of clinical information

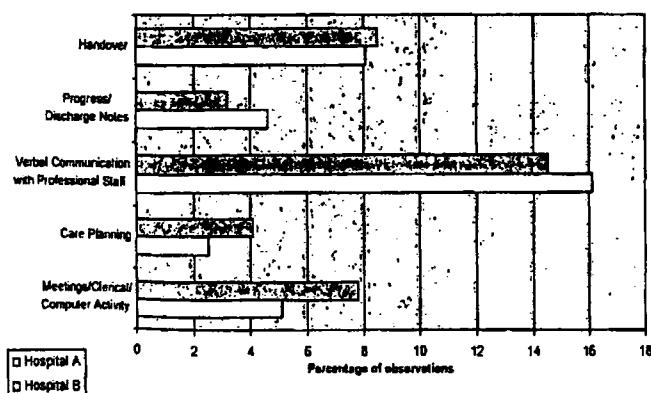
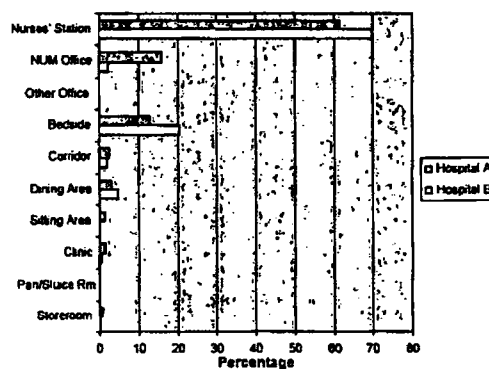


Figure 7: Location of observed written documentation



LIMITATIONS

Limitations of this study include some differences in staffing which may have impacted on the type of nursing activities undertaken. For example, Hospital A had a high concentration of physiotherapists who undertook rehabilitation tasks, leaving nurses to carry out the more traditional nursing activities. Ward differences in terms of geographical layout, organisation of charts and of ward routines, such as, medication dispensing practices and patient meal times were also apparent. Additionally, there were differences in staff skill mix and one ward was undergoing structural change.

As for the 'Hawthorne effect' discussed in the work-sampling literature (Finkler et al 1993; Urden and Roode 1997; Pelletier et al 2003), it did not take long for the data collectors to 'fade into the background', so to speak. One nurse told a researcher that the team was now a 'part of the furniture', a sign that the researchers' presence may not have affected that nurse's behaviour, and this was presumably the case more widely.

CONCLUSION

Nursing documentation has grown markedly, both in breadth and complexity, in the past decade, and an analysis of both its scope and the time spent in this activity, especially in the Australian context, has been lacking until now. This research has aimed to ascertain the proportion of time nurses of all skill levels spend in documenting and imparting clinical information to other health care professionals and to determine if this was outside the norms as shown in other studies (most of which are not aged care settings). While the observed written documentation may not be as high as the nurses themselves anticipated, the transfer of clinical information between health care professionals constitutes a large portion of a nurse's working day. The proportion is in line with other studies and the value of communication of information well recognised as critical to patient care. When documentation is perceived as taking nurses away from their patients, it is devalued. This study indicates that the time spent in documentation as an element in the overall of professional transfer of information is not excessive and this realisation may help practitioners accept it as both a necessity and an integral part of their patient care.

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