COVER SHEET

Title:

Nurses and Midwives perceptions of missed nursing care- a South Australian study.

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Abstract

Keywords

Nursing and Midwifery; Missed Care; Rationed Care; Staffing; Skill Mix

Background

Budgetary restrictions and shorter hospital admission times have increased demands upon nursing time leading to nurses missing or rationing care. Previous research studies involving perceptions of missed care have predominantly occurred outside of Australia. This paper reports findings from the first South Australian study to explore missed nursing care.

Aim

To determine and explore nurses' perceptions of reasons for missed care within the South Australian context and across a variety of healthcare settings.

Method

The survey was a collaborative venture between the Flinders University of South Australia, After Hours Nurse Staffing Work Intensity and Quality of Care project team and the Australian Nursing and Midwifery Federation, SA Branch.

Electronic invitations using *Survey Monkey* were sent to randomly selected nurses and midwives and available online for two months. Three hundred and fifty four nurses and midwives responded. Recurring issues were identified from qualitative data within the survey and three main reasons for missed care emerged.

Findings

Three main reasons for missed care were determined as: competing demands that reduce time for patient care; ineffective methods for determining staffing levels; and skill mix including inadequate staff numbers. These broad issues represented respondents' perceptions of missed care.

Conclusion

Issues around staffing levels, skill mix and the ability to predict workload play a major role in the delivery of care. This study identified the increasing work demands on nurses/midwifes. Solutions to the rationing of care need further exploration.

Introduction

Australia as with many western countries has seen an increase in the acuity of patients admitted to hospital and this, compounded by shortened lengths of stay intensifies nurses' workload which in turn has a significant impact on how they manage their time and prioritise patient care (Willis, 2009). Current issues within the Australian healthcare system such as the size, composition and age of the nursing workforce provide the Australian nurse with a variety of challenges (Preston, 2009). Australia faces an ageing nursing workforce alongside of increased demand for nursing services arising from an ageing population (O'Brien-Pallas, Duffield & Alkins, 2004). Staff shortages at the macro-level have been associated with calls for greater flexibility in staffing health services (Productivity Commission 2005). Jacob, McKenna and D'Amores (2013) argue for a manipulation of skill mix as a means of addressing staffing issues but also as a response to budgetary restraints contributing to increased employment of enrolled nurses and unregulated health professionals eg: nurse assistants to provide nursing care. Restructuring and budgetary constraints, irregular staffing levels and skill mix, set the scene for potential missed nursing care (Henderson, et al., 2013).

Background

The notion of missed nursing care was first explored by Beatrice Kalisch in 2006. Kalisch and colleagues refer to missed care as "any aspect of required patient care that is omitted (either in part or in whole) or delayed" and acknowledged that it is a response to "multiple demands and inadequate resources" (Kalisch, Landstrom & Hinshaw, 2009, pg. 1509). Missed nursing care has been linked to negative patient outcomes (Schubert, Glass, Scaffert-Wiltvliet & De Geest., 2009) and attributed to a variety of causes from the

work environment, to patient care demands and staffing issues (Kalisch, Doumit, Lee & Zein 2013; Papastavrou, Panayiota & Georgios, 2013; Kalisch et. al., 2009; Aitken, Clarke & Sloane, 2002; Needleman, Buerhaus, Mattke, Srewart & Zelevinsky, 2002). Current research suggests that when a nurse's work load increases, there is less time to care for individual patients (Schubert, Glass, Schaffert-Witvliet & De Geest 2008).

Kalisch in a qualitative study in 2006 identified a range of core nursing tasks that were routinely omitted. These tasks included discharge planning and patient education, emotional support, hygiene and mouth care, documentation of fluid intake and output, ambulation, feeding and general nursing surveillance of the patient. The nurses in her study identified inadequate staffing levels and skill mix, unexpected workload increases, too few or lack of resources, poor handover and inadequate teamwork and orientation to the ward as key determinants of missed care. Her study led to the development of the MISSCARE survey instrument to formally measure common elements of missed care and the rationales behind them (Kalisch & Williams, 2009). Subsequently, Kalisch and her colleagues associated missed care with three primary antecedents in relation to patient care: (1) the availability of labour resources; (2) access to the material resources, and (3) relationship and communication factors (Kalisch et al., 2009; Kalisch and Williams, 2009). In more recent years, Kalisch has explored more specific aspects of the nursing work environment and its impact on missed care. Findings from these studies have identified a range of factors that contribute to and impact upon missed care. In 2009, Kalisch et al. examined the impact of nursing teamwork on missed care, arguing that it was not simply the number of nurses rostered, but the skill mix of nursing staff that impacted on perceptions of whether care was missed. The study also found that in line with their roles and responsibilities, Registered Nurses (RN)s were more likely than

nurse assistants to report missed care and to associate this with an unexpected rise in patient volume or acuity, rates of admission and discharge and access to material resources. A later qualitative study by Kalisch, Gosselin and Choi (2012) compared perceived differences in work environments between units with high and low levels of identified missed care. This study found that units reporting low levels of missed care had adequate and flexible staffing; effective communication and leadership; strong team focus; and shared accountability for monitoring and assessing work (Kalisch et al., 2012).

While Kalisch's work has been instrumental in developing and refining the concept of missed nursing care, she is not alone. Studies have been undertaken in other contexts. Papastavrou et. al., (2013), conducted a systematic literature review exploring rationales for missed care that firmly support and acknowledge Kalisch's findings. Evidence collated from this review highlights a growing interest in missed care and attests to the global quest to improve patient quality and safety. When there are insufficient resources, nurses are forced to ration or omit care. It is this that impacts on negative patient outcomes and is a major challenge to quality assurance, risk management, nurse satisfaction and ultimately patient care (Papastavrou et al., 2013). Although much of the research in this area has been conducted outside of Australia, an Australian study conducted by Chaboyer, Wallis, Duffield and Courtney (2008), found that when nursing workload intensified the roles of staff could be "blurred". These roles were identified as: patient assessment, hygiene, medication administration and some nursing procedures.

The literature is consistent in its findings that missed nursing care does occur and the implications for staff, the patient and institutional management cannot be ignored. The challenges of providing cost effective, quality patient care are real and with an aging population and associated increases in patient acuity and shortened length of stay are likely to magnify. This paper presents the qualitative findings of perceptions of South Australian community and acute care nurses and midwives of the factors which impact their capacity to perform nursing care.

Method

A modified version of Kalisch's MISSCARE survey (Kalisch & Williams, 2009) was used with the author's permission. Modifications to the survey were made to reflect the South Australian context as shift times, and terminology such as categories of employment and categories for education levels varied to that of the USA. Ethics approval was obtained through Flinders University Social and Behavioural Research Ethics Committee.

The survey was disseminated using Survey Monkey with the support of the Australian Nursing and Midwifery Federation (SA Branch) (ANMFSA) and available online for ANMFSA members for two months from Nov 1st to December 31st 2012. The survey contained demographic questions, questions that explored working conditions, questions concerning missed nursing care (defined as care omitted, postponed or incomplete) and questions concerning perceived reasons for missed or omitted care in the settings that the nurses/midwives practiced. Likert scales arising from the MISSCARE tool were used to estimate data. In addition, open-ended questions offered respondents the opportunity to add personal comments concerning nursing care that is missed and their perceptions of the rationale behind this missed care. In keeping with

qualitative research methods the inclusion of personal comments provided the opportunity for meaningful data through personal reflection. Further, the use of the qualitative comments is interpretive enabling an investigation of what meaning nurses give to events (Denzin & Lincoln, 2003) in the context of their own experiences and environment (Meyrick, 2006).

The responses to the open ended questions form the basis of qualitative data reviewed in this paper. Table 1 provides details of the questions allowing qualitative comment and the number of responses elicited for each question.

<INSERT TABLE 1 HERE>

Participants

Initially the survey was sent via email to 10% (1600) of the ANMFSA membership selected randomly. This sample was later expanded to the wider membership through an advertisement in the ANMFSA emailed newsletter that provided details of the study and a link to the online survey tool. As it is difficult to ascertain how many members accessed the email or newsletter a true percentage of invited respondents cannot be determined, however, 354 surveys were returned.

Data analysis

In total, 843 qualitative responses were included in the survey. Thematic analysis was used to interpret the results. Each team member initially reviewed responses individually to ascertain recurrent concepts, words and sentences from the qualitative data, which represented the initial coding method (Patton 2002). As the research team

was familiar with existing literature in the area some general themes were predicted (Pope, Ziebland & Mays, 2006). The research team then met to discuss, compare and further review themes until agreement was met. Once themes were established these were used as categories or secondary codes (Patton 2002) and three members of the team revised the responses and allocated them to each category to support the validity of the themes.

Findings

Three hundred and fifty four participants responded to the survey however, not all participants completed every question with 258 completed in its entirety. The participants ranged in age, gender, years of experience, hours worked, and location and setting, providing a solid cross section of the South Australian nursing and midwifery workforce. Participant profiles of those who responded to the survey were indicative of ANMFSA member profiles. Table 2 provides the demographic profile of participants.

<INSERT TABLE 2HERE>

Survey findings indicated that missed care relates to systemic issues in three main areas: competing demands that reduce time for patient care; ineffective methods for determining staffing levels; and skill mix including inadequate staff numbers. The latter finding was particularly prominent within aged care settings. An analysis of the qualitative survey data revealed overall concerns of changing acuity of patients, the aging population, changes in how nurses provide care and changes in the way nursing care is managed. Further exploration of the main issues identified from the open-ended survey responses follow.

Competing demands

A majority of respondents identified competing demands as significantly contributing to missed care. These demands were represented as disruptions to daily routines, alterations in patient acuity during a shift, unplanned admissions and unavailable resources such as certain patient medications and diagnostic equipment. This issue is summarised well by the following comment:

> …nursing staff are frustrated by their inability to be everywhere and do everything. Most go home worrying that they haven't done everything they were meant to do, … the nurses who care the most are stressed by their inability to be the nurses they want to be due to lack of time. We are all just doing the best we can with what we have. (Participant 27).

A recurring factor was the lack of properly maintained equipment and resources needed to perform duties, with reference made to budgeting cuts overriding needs:

> …a lot of time looking for things or chasing things up, i.e. medication running out, trying to find equipment that is available and working…(Participant 19).
>
> … it seems equipment has been cut but patient acuity has increased (Participant 99).
>
> …there were no towels to attend to patient washes/showers as well as no incontinent pads or basic dressing material…(Participant 7).

Frequent additional or unexpected tasks such as phone calls, visitors' requests, stat (immediate) drug administration, as well as impromptu discussions with allied health about patient care, impacted on the nurse's ability to provide all of the required care in a timely fashion.

Participants suggested that when there are many unexpected interruptions as well as patient admissions, transfers and discharges, nurses may lose track of what they are doing and miss following up certain patients: "…a lot of care is missed when there is too much to be done in a short time frame" (Participant 54).

The enormity of required documentation was a major concern, with the suggestion that more and more data is expected to be documented, removing autonomy from the nursing role:

> …some of it unnecessary and old fashioned:, e.g. rounding
>
> (Participant 12).

Rounding was introduced by some hospitals in an effort to reduce the number of times basic but essential care was missed, e.g. pressure care and toileting (Meade, Bursell & Ketelsen, 2006). Additionally, this was viewed as supporting the reduction of falls especially in the elderly. In rounding, staff are required to check their patients each hour and to sign a checklist of essential nursing care. Respondents suggested that the very checking that was implemented to enhance care actually detracts from it because staff are required to stop what they are doing to join the required round at the designated time. The rounding policy took precedence over their own professional judgments about how best to spend their time with patients. It can become a complex juggling act as to what becomes 'essential' and what should be dismissed as 'non-essential' when patients

are of a higher acuity or require total assistance in all basic activities such as feeding and mobilisation.

Additional comments related to frustrations around documentation being difficult to comprehend or just not done and this impacted upon the quality of further documentation. Examples of missed or incomplete documentation included: incomplete wound charting, Braden scales (used to check pressure points on skin), falls risk assessments, pressure care, property lists and the actual patient handover sheet. There was a suggestion of incongruity between the teaching of documentation skills and the reality of having the time to produce "perfect documentation":

> All our time is taken up by caring for patients with very little time left for paperwork. I often work unpaid overtime to complete this. (Participant 7).

These factors put all staff under considerable pressure, contribute to missed nursing care and over the longer term may lead to exhaustion and increased sick leave.

Ineffective methods for determining staffing levels

Missed care related to ineffective methods for determining staffing levels, was identified by a number of participants. A significant number of nurses were dissatisfied with the electronic staffing system in use (ExcelCare) and claimed that it did not allow for the changing needs of the patient as well as inherent daily fluctuations in workload due to many unpredictable daily events. ExelCare is a registered software program that allows health services to plan and manage care in accordance with the numbers of nurses and patients on any given shift (Willis, 2009). The prediction of staffing requirements and allocation is done prospectively and data used for the following shift is based on the

previous shift data. This creates a situation whereby there is little latitude in staffing numbers to accommodate any clinically unexpected events that may eventuate on any given day. One nurse commented that medication was always late because ExcelCare did not account for:

> …complex patients with multiple medications…the hours don't seem to cover the actual care the patients need…..these are people we deal with and their care can't be put down on paper…..every person is different but they get their care categorised the same as everyone else. (Participant 98).

There was a recurring reference that changes in patient acuity; unplanned admissions and unplanned diagnostic procedures were not adequately factored into ExcelCare at an appropriate level to support the need for additional nursing staff. Respondents also commented that not all nursing procedures could be captured by ExcelCare, which led to poorer staffing levels and thus missed care.

> ExcelCare allows minimal time for admissions that are not already on the ward so multiple expected surgical patients (who may require full admission, ECG, bloods etc) do not change our ExcelCare requirements enough to allow for adequate staff. (Participant 25).

Nurses and midwives indicated that they found the electronic staffing system to be inadequate to meet the needs of changes in patient acuity and that it did not allow for the clinical judgement or time for patient education, which, according to the survey data is a nursing role that is often missed:

> … I can imagine the response to the request for an extra staff member to cover other patient's care while you spend twenty minutes talking with a patient/family member. (Participant 17).

Issues of missed care were also associated with the inability of electronic staffing software to incorporate the added work required due to agency and relieving staff that may be unfamiliar with the patients, ward environment and processes. This often resulted in junior or inexperienced staff taking on more responsibilities around workload and decision-making, adding to an already demanding workload.

Inadequate skill mix/staffing numbers

The third predominant issue derived from the data identified inadequate skill mix and staffing numbers. This was prominent in responses from participants working in aged care settings. One nurse claimed that residents were " frequently not fed, changed or toileted" due to inadequate staffing numbers along with issues with "new Registered Nurses having limited English as well as limited clinical experience" (Participant 26). In these environments Registered Nurses (RN)s are being back filled with Enrolled Nurses (EN)s and some of the work is outside their scope of practice. While RNs and ENs are both registered with the Australian Health Providers Regulatory Agency (AHPRA), ENs usually undertake training less than the three years required for RN training and work alongside RNs generally performing less complex tasks (AIHW 2013). This in turn places additional stress on existing experienced staff, which results in these nurses having to take on responsibilities that can be identified as working outside their scope of practice. This places additional stress on existing experienced RNs who must take responsibility for all care provided by ENs as well as their own patient allocation; this has potential for missed or delayed care.

> Country SA is cutting our staffing levels, running acute beds with nursing home, hostel and A & E services with only 1 RN and minimal staff. …We have 60 beds to look after on night duty with one RN, one EN and one carer. (Participant 234).

Missed care related to lack of staff was reported in the aged care setting in particular, with suggestion that residents were not being fed a warm meal, had poor oral hygiene and references were made to the omission of hand washing by staff. Inadequate training and lack of skill was identified by participants as a contributing factor to this missed care.

Issues associated with skill mix were commonly reported in rural hospitals because of difficulties recruiting RNs and the limited scope of practice of ENs:

> …our Enrolled Nurses are not allowed to do medications regardless of whether they are diploma trained or not. This puts pressure on the 1 or 2 Registered Nurses rostered each shift. (Participant 91).

Survey findings also noted that nursing tasks are not being performed according to expertise; for example, one nurse stated, "making beds and emptying skips should be done by carers (also known as Health Support Workers), not nurses" (Participant 72). When a RN is off sick, s/he is often replaced with a more junior staff member or "relieving nurse" with inadequate experience or knowledge, requiring supervision and this leads to a situation where care may be missed.

Some participants indicated that when working as a casual or agency nurse, "permanent staff will often give you a heavy work load 'because you don't deal with these people

every day'" (Participant 112). so that not only is the patient allocation and health care system contributing to the situation, so too are the nurses themselves. This is not surprising when other participants stated, "we need more staff to take the pressure off" (Participant 220).

> …junior staff are no longer given the time to learn the specialty area before being thrust into senior roles, giving dangerous cytotoxic drugs etc. It seems it is only getting worse unfortunately. The senior staff are leaving and the juniors are feeling very pressured and anxious about their roles. (Participant 172).

Discussion

The purpose of this study was to build upon the work done by Kalisch and others regarding missed nursing care to ascertain similarities and differences in findings and determine possibilities for future research that might inform practice and improve patient care in Australia. This study relates specifically to perceptions of missed care by South Australian nurses and midwives across a range of practice settings.

This paper presents an analysis of the qualitative responses from 354 South Australian nurses and midwives following the use of a thematic analysis to discern responses and identify themes. Analysis of survey findings revealed three overriding factors as contributors of missed nursing care. These factors have been identified as: competing demands that reduce time for patient care; ineffective methods for determining staffing levels; and inadequate skill mix including insufficient staff numbers. These three factors describe a tension between what nurses perceive as essential care, staffing allocations and the resultant missed care or delayed care the nurses and midwives describe in their

daily practice. Results from the South Australian survey support findings by Kalisch and Williams (2009) in relation to significant reasons for missed care.

Nurse and midwife respondents often mentioned the variety of daily tasks as interruptions to their daily routine such as visitor requests, impromptu meetings with interprofessional colleagues, the enormity of paperwork and an unpredictable workload with increasing intensity; a formula for missed care. The ANMFSA study (2012), also noted that there is a growing concern as to how much care is actually being missed despite various models of care (such as ExcelCare) being implemented.

Having reviewed international literature on models of care the ANMFSA study points to the need for a more flexible model of delivery that allows nurses to make decisions pertaining to care based on evidence, best practice and professional judgement. This decision making however, must be undertaken within the professional boundary of the nurse/midwife who is required to comply with national competency standards as governed by the Nursing and Midwifery Board of Australia. These competency standards are used as a professional framework to assess competence as a component of annual performance review and registration. Understanding scope of practice and negotiating roles within available skill mix, supports patient safety and promotes effective team environments (Schulter, Seaton & Chaboyer, 2011).

Skill mix in nursing refers to the level of experience and skill a nurse has and needs to be considered in allocating patients based on acuity. Skill mix is frequently used in conjunction with cost effectiveness and quality of care and can be broadly categorised as "the mix of posts in the establishment; the mix of employees in a post; the combination of skills available at a specific time; or the combinations of activities that comprise each

role, rather than the combination of different job titles" (Buchan, Ball & May, 2001, p. 233). While skill mix is determined by a number of influences, the most prevalent of these is financial where less skilled nurses are used to cut costs (Duffield et. al 2005). Kalisch et al. (2009) identify skill mix as a factor in missed care with RNs more likely to identify nursing care as being missed.

The South Australian State Government recently commissioned the consultancy firms of Deloitte Touche Tohmatsu and KPMG to undertake a budget performance review for the two major urban regions. The findings of these two reviews suggest that hospitals in South Australia have more than adequate nursing and midwifery staff in comparison to peer hospitals in other states (Deloitte Touche Tohmatsu, 2012; KPMG, 2012). This survey challenges these reports by highlighting nurse and midwives perceptions of missed or rationed care, with both staffing methods and skill mix identified as significant contributors to missed care.

Limitations of this study

The South Australian study replicated one that had already been carried out in the US. Whilst the survey was modified to meet local conditions, it did not address all the concerns of the participants, as indicated, "your survey does not adequately reflect the situations we're facing in order for me to do the survey justice" (Participant 164). The survey was originally designed for acute care settings. Our sample included participants from community and aged care settings who may experience different barriers to those experienced in acute care. The inclusion of open questions provided scope for identifying the range of issues faced. The issues are complex and extensive, and this needs to be reflected in any follow up study.

The response rate in comparison to ANMFSA membership could be considered a limitation to the study. The online survey emailed to members was reliant on members opening the email and email addresses being accurate. However, the profile of participants that did respond was indicative of ANMFSA membership profiles allowing for some generalizability of the results.

Implications for practice

Australia is facing a rapidly changing healthcare landscape where an ageing population and increase in chronic disease means that people are living longer and often require more complex care. The health system and its workers need to evolve in response to these changing demands. This translates into finding ways to better provide care, prioritising this care, and reviewing the capabilities of those providing care, that go beyond rationing staff in response to escalating health delivery costs.

Results indicate the need to create work environments that are healthy, empowering and safe with adequate staff numbers, and with the necessary skills to provide comprehensive care. Staff should have the appropriate skills and equipment to be adaptive to daily changes in workload and patient acuity, and the knowledge to appropriately prioritize and re prioritize care when required.

Conclusion

This study has identified the reasons that nurses give for missing nursing care. The study highlights the discontinuity between the cost of care budgeted for and the actual

care required by patients and others. Many staff identified competing demands and unpredictability of workload which occurs despite use of ExcelCare to determine staffing in public sector hospitals in South Australia as contributing to missed care. Skill mix and increasing use of ENs and care assistants were also implicated primarily in rural and aged care settings. The findings imply that hospital budgeting is an important factor in determining the adequacy of staffing, supplies, and skill mix. Further studies on missed care within the Australian context are needed to determine if similar findings occur in jurisdictions with alternate staffing methods.

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Table 1: Provides details of the questions allowing qualitative comment and the number of responses elicited for each question (from most prevalent to least).

Questions concerning incidence of missed care	**No of responses**
Turning patient every two hours	95
Ambulation three times a day as ordered	67
Feeding patients while food is still warm	42
Setting up meals for patients who feed themselves	34
Medications administered within 30 minutes before or after scheduled time	33
Patient bathing/skin care	27
PRN medication requests acted on within 15 minutes	25
Vital signs assessed as ordered	24
Mouth care	24
Patient discharge planning & education	24
Emotional support to patient and/or family	22
Response to call bell/light initiated within 5 minutes	21
Attend interdisciplinary care conferences whenever held	21
Assist with toileting needs within 5 minutes of request	21
Hand washing	21
Monitoring intake/output	21
Full documentation of all necessary data	20
Patient education about illness, tests and diagnostic studies	20
Skin/Wound care	17
Bedside glucose monitoring as ordered	16
Focussed reassessments according to patient condition	16
Assess effectiveness of medications	16
Patient assessments performed each shift	14
IV/Central line care sire & assessment according to hospital policy	14
Questions concerning rationale for missed care	
Indicate the reasons which contributed to MISSED care in your ward/unit	14
Addition questions	
Is there anything else you would like to tell us about missed care?	107
What suggestions do you have about improving our survey?	69
Total	843

Table 2: Demographic profile of participants. As some participants did not complete all questions these numbers do not equate to total survey responses.

	N	%
GENDER		
Female	261	90
Male	28	10
AGE		
Under 25	6	2
25-34	34	12
35-44	57	20
45-54	108	37
55-64	80	27
65 and above	6	2
YEARS OF EXPERIENCE		
Less than 2 years	38	13
2-5 years	42	14
5-10 years	45	16
More than 10 years	166	57
NUMBER OF HOURS WORKED		
Less than 30 hours per week	95	33
30 hours or more per week	195	67
LOCATION		
Metropolitan	197	68
Rural	93	32
SETTING		
Public	218	75
Private	54	19
Agency	18	6