Burnout, job dissatisfaction and missed care among maternity nurses

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Abstract

Aim—This study examined the prevalence of job dissatisfaction and burnout among maternity nurses and the association of job dissatisfaction and burnout with missed care.

Background—Nurse burnout and job dissatisfaction affect the quality and safety of care and are amenable to intervention. Little is known about job dissatisfaction and burnout among maternity nurses or how these factors are associated with missed care in maternity units.

Methods—This was a cross-sectional secondary analysis of the 2015 RN4CAST survey data and the American Hospital Association's 2015 Annual Survey. Robust logistic regression models at the nurse level examined the association of job dissatisfaction burrnout with missed care.

Results—One-quarter of nurses screened positive for burnout, and almost one-fifth reported job dissatisfaction. While 56.4% of nurses in the total sample reported any missed care, 72.6% of nurses with job dissatisfaction and 84.5% of nurses with burnout reported any missed care ($p < .001$).

Conclusions—The association of job dissatisfaction and burnout, which are modifiable states, with increased rates of missed maternity care suggests that addressing job dissatisfaction and burnout may improve care quality.

Implications for Nursing Management—Job dissatisfaction, burnout and missed care may decrease with an improved work environment.

Keywords

job satisfaction; maternity nursing; nursing care; professional burnout; United States

1 | INTRODUCTION

With nearly 4 million births each year in the United States, childbirth accounts for a quarter of all hospital admissions and is the most frequent reason for hospital admission. Nurses provide most of the care to labouring women in the United States and are responsible for care that is critical to maternal and infant outcomes including, but not limited to, surveillance, labour support, comfort, education, care planning, documentation, communication and care coordination with other members of the health care team. Despite nurses' pivotal role in maternity care, nursing factors impacting maternity care have not been well studied.

In 2019, the National Academies of Sciences, Engineering and Medicine published a landmark report on clinician burnout (National Academies of Science, Engineering, and Medicine, 2019). The authors note that provider burnout is a major problem in the United States, significantly affecting 35%–% of nurses and doctors, that levies a high tax not only on individual clinicians, but also the organisations of which they are a part and society as a whole. The report summarizes a large body of research demonstrating the provider burnout is associated with poorer quality of care, increased risk of safety incidents and decreased patient satisfaction. Burnout has been studied and discussed among physicians and midwives (Hunter, Fenwick, Sidebotham, & Henley, 2019; Shanafelt et al., 2015). Indeed, an entire recent issue of Clinics in Obstetrics and Gynecology was dedicated to the topic of burnout in obstetricians and gynaecologists (cf. Smith, 2019). Burnout in maternity nurses in the United States, however, is poorly studied.

A large body of research has shown that nurses are more likely to leave necessary care unfinished if they are working in an environment with insufficient resources, staffing or poor safety climate (Kalisch & Xie, 2014; Lake, Riman, & Sloane, 2020; J. Smith, Morin, Wallace, & Lake, 2018). Missed care is a predictor of decreased patient satisfaction and care quality, as well as increased adverse events and intent to leave (Jones, Hamilton, & Murry, 2015). Missed care in maternity care, and factors effecting missed care, is beginning to receive attention as a means by which the quality and safety of maternity care may be improved, thus improving outcomes. A recent quantitative study based on 2006 data found an association between the clinical work environment and missed care among labour and delivery nurses (Lake, French, O'Rourke, Sanders, & Srinivas, 2019). Meanwhile, a qualitative study conducted with nurses noted a number of potential adverse maternal and infant outcomes associated with missed care (Simpson & Lyndon, 2017). There is a need to better understand missed care in maternity care, especially factors that predispose or are protective against missed care, in order to improve care quality and safety.

Burnout in nurses and physicians has been associated with poor patient safety and quality care (Bourne et al., 2019; White, Aiken, & McHugh, 2019). Nurse burnout has been identified as a mediator between the clinical work environment and patient outcomes (Spence Laschinger & Leiter, 2006). Indeed, an association between burnout, job dissatisfaction and missed care among nurses has been noted in a number of studies (Simpson & Lyndon, 2017; Smith, Rogowski, & Lake, 2020; White et al., 2019). Nurse burnout and job dissatisfaction are factors that affect the quality and safety of care and are

amenable to intervention, but little is known about burnout among maternity nurses or the association of burnout and job dissatisfaction with missed care in maternity units. The purpose of this study was to examine the prevalence of job dissatisfaction and burnout among maternity nurses and the association of job dissatisfaction and burnout with missed care.

2 | METHODS

2.1 | Study design and sample

This retrospective, cross-sectional secondary analysis of the 2015 RN4CAST survey data and the American Hospital Association's (AHA) 2015 Annual Survey examined job satisfaction, burnout and missed care among maternity nurses in four states. The RN4CAST study methodology has been described in detail previously (Lasater et al., 2019). In this methodology, nurses are informants regarding the hospitals and nursing units where they work. Surveys were sent to a 30% random sample of licensed nurses in California, Pennsylvania, New Jersey and Pennsylvania in 2015. The survey had a 26% response rate (Lasater et al., 2019). A non-respondent survey showed no bias in key variables (Lasater et al., 2019). The AHA's Annual Survey provided hospital information, including obstetric level of care. The University of Pennsylvania's institutional review board approved the study protocol. Nurses were included in the study sample if they were currently working as a direct-care maternity/newborn staff nurse. The sample size was 1,538 nurses in 275 hospitals.

2.2 | Measures

Staff nurses providing direct patient care in maternity/newborn units reported on their job dissatisfaction, level of burnout and missed care. Respondents answered questions about their age, race, years of experience as a nurse, level of education and native language, which were controlled for as independent variables.

Job satisfaction was measured on a 4-point Likert-type scale ranging from 'very satisfied' to 'very dissatisfied'. A binary variable for job dissatisfaction was created (1 = dissatisfied, 0 = satisfied). A response of 'very dissatisfied' or 'somewhat dissatisfied' was considered dissatisfied.

Burnout was measured via the Maslach Burnout Inventory Emotional Exhaustion subscale. The Inventory is a validated tool for measuring burnout, and the subscale has been used as a proxy for burnout in previous studies (Maslach & Jackson, 1981, White et al., 2019). Nurses answered nine questions about experiencing feelings of emotional exhaustion. Possible answers for each question were on a 7-point Likert-type scale ranging from 'never', which was scored '1', to 'everyday', which was scored '7'. A score greater than or equal to 27 was classified as burnout (Maslach & Jackson, 1986).

Missed care was measured as leaving any of 14 care activities undone due to lack of time or resources on the most recent shift a nurse worked. The RN4CAST survey included 14 care activities but 3 of these were excluded for the purpose of this study since these activities are not as applicable to the maternity population. The excluded care items were oral hygiene,

skincare and preparing for discharge. A binary variable for missed care, with 1 equalling any missed care, was used as the dependent variable.

Hospital characteristics, including bed size, technology, obstetric level of care and teaching status, were obtained from the AHA's 2015 Annual Hospital Survey (American Hospital Association, 2015). Bed size was defined as small (250 beds), medium (251–500 beds) and large (>500 beds). Technology status was defined as high or low based on whether the hospital has capabilities for performing open-heart surgery and organ transplants. Obstetric level was defined as only uncomplicated maternity and newborn care (a), uncomplicated and most complications with special neonatal services (b), and all complications and presence of maternal–foetal medicine (c) (American Hospital Association, 2018). Teaching status was based on the ratio of residents to beds: major (1:4), minor (<1:4) and non-teaching (no residents). Hospital organisational characteristics, which might be associated with safety, were controlled for in the regression models.

2.3 | Analytic procedures

The RN4CAST survey and the AHA Annual survey were linked via the AHA hospital identifier. Descriptive statistics were used to describe maternity nurses and the hospitals where they worked. Missing data on the key variables at the nurse level were handled by listwise deletion to compute a mean value for the nursing unit. Hospitals missing information on bed size, teaching or technology status were included in regression models via dummy variables. Robust logistic regression models at the nurse level, with nurses clustered within units, were used to examine the association of job dissatisfaction and burnout with missed care. StataIC 15 was used for data analyses (StataCorp, 2017).

3 | RESULTS

The majority of the maternity nurse respondents were female, BSN-prepared (56.6%) and white with a mean age of 47.8 years (*SD* 12) and 20.5 years of nursing experience (*SD* 12.6). Characteristics of nurses are summarized in Table 1. Most of the hospitals in the sample had fewer than 500 beds, minor or no teaching, and high technology. Hospital characteristics are summarized in Table 2.

One-quarter of maternity nurses in the sample screened positive for burnout, and almost one-fifth reported job dissatisfaction. Burnout and job dissatisfaction were not mutually exclusive. Two-thirds (65.6%) of nurses reporting job dissatisfaction screened positive for burnout. The only statistically significant differences between the groups were that nurses reporting burnout or job dissatisfaction were more likely to be older and have more experience as a nurse. Non-native English speakers were also more likely to report burnout, though not job dissatisfaction.

More than half (56.4%) of the nurses reported any missed care on their last shift. The most commonly reported missed care item was comforting and talking with patients with one-third (31.5%) of nurses reporting that they did not do this in their last shift. About one-fifth of nurses reported not developing/updating the patient plan of care, not adequately documenting nursing care or not participating in team discussions of the patien s care.

Job dissatisfaction and burnout were significantly associated with increased incidents of missed care (see Table 1). While 56.4% of nurses in the total sample reported any missed care, 72.6% of nurses with job dissatisfaction and 84.5% of nurses with burnout reported any missed care ($p < .001$). More than half of nurses with job dissatisfaction or burnout reported not comforting or talking with their patients on the last shift (53.6% and 54.6%, respectively). Less than 5% of nurses reported missing treatments/procedures or pain management, but even this increased to over 8% among nurses with job dissatisfaction or burnout. While 10.9% of nurses reported frequently being unable to complete necessary patient care due to time constraints, this percentage increased to 26.5% and 25.2% of nurses who were dissatisfied with their work or burned out, respectively.

Unadjusted and adjusted robust logistic regression results of the effect of burnout and job dissatisfaction on missed care are reported in Table 3. Nurses with burnout were four times more likely to leave necessary care undone than nurses without burnout, after controlling for nurse and hospital characteristics (OR 4.0, 95% CI 3.0–5.5). Likewise, nurses with job dissatisfaction were 3.4 times more likely than satisfied nurses to missed care, after controlling for nurse and hospital characteristics (OR 3.4, 95% CI 2.3–4.9). All results were statistically significant ($p < .001$).

4 | DISCUSSION

We were interested in studying the associations of nurse burnout and job dissatisfaction with missed care because this is one way in which burnout and job dissatisfaction might impact the quality of care and patient outcomes. There is little published work on burnout and job dissatisfaction in maternity nurses, even though they provide the majority of bedside care for mothers and their newborn infants and the effort to improve maternal outcomes in the United States has been the focus of national attention. We found that one in four maternity nurses screened positive for burnout and one in five reported job dissatisfaction. Both burnout and job dissatisfaction were associated with significantly increased prevalence of missed maternity care.

A causal relationship between job dissatisfaction, burnout and missed care cannot be determined with this cross-sectional study. While missed care was the dependent variable in this study, another cross-sectional study has shown increased nurse dissatisfaction associated with an inability to provide necessary care (Smith et al., 2020). Another study among labour and delivery nurses demonstrated an association between missed care and poor work environments (Lake et al., 2019). The study of missed care among labour and delivery nurses used data from the 2006 RN4CAST survey and found a missed care prevalence of 49.2%, similar to the 56.4% prevalence reported in this paper (Lake et al., 2019). As with the findings reported here, comforting and talking with patients was the most commonly reported missed care tasks (Lake et al., 2019). Corresponding with these findings, a qualitative study of 71 labour and delivery nurses reported that support and education were aspects of care likely to be missed (Simpson & Lyndon, 2017). It is probable that the work environment, job dissatisfaction, burnout and missed care are closely interrelated. Better working conditions with sufficient resources enable nurses to provide safer and better

quality care associated with less missed care, and may also combat job dissatisfaction and burnout (Kutney-lee, Wu, Sloane, Aiken, & Fagin, 2014; Lake et al., 2020).

The National Academies of Science, Engineering and Medicine recently published a report on clinician burnout and well-being, developing a national agenda to combat a concerning growth in provider burnout (National Academies of Science, Engineering, and Medicine, 2019). With regard to maternity care providers, specifically, a 2019 special issue of the *Clinical Obstetrics and Gynecology* focused exclusively on burnout and resilience in obstetricians and gynaecologists (Smith, 2019). Substantive recent work has been done on burnout in midwives in Europe and Australia (Fenwick, Lubomski, Creedy, & Sidebotham, 2018; Hunter et al., 2019). This literature has identified burnout as a critical issue for maternity care providers that effects the quality and safety of care (Bourne et al., 2019). Rates of burnout among nurses vary but many studies report rates of around 20%-30% (Bakhamis, Paul, Smith, & Coustasse, 2019; Mchugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011; Monsalve-Reyes et al., 2018; Poghosyan, Clarke, Finlayson, & Aiken, 2010; White et al., 2019). Burnout and job dissatisfaction in maternity nurses, however, are not well understood. A qualitative survey of the Association of Women's Health, Obstetric and Neonatal Nurse members found that burnout was one of three consequences of understaffing identified by nurses (Simpson, Lyndon, & Ruhl, 2016). To the best of our knowledge, this is the first quantitative study of burnout and job dissatisfaction among maternity nurses.

Both job dissatisfaction and burnout have been associated with unsafe and poor-quality care (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; Brooks Carthon et al., 2020; National Academies of Science, Engineering, and Medicine, 2019; White et al., 2019). Missed care, meanwhile, is a possible means by which unsafe or poor-quality care occurs (Kalisch & Xie, 2014). Maternal outcomes in the United States are poor, and cost more, in comparison with other high-income countries. Given that job dissatisfaction and burnout are modifiable, their association with increased rates of missed care suggests that addressing burnout will improve both care quality and provider satisfaction. Most maternal mortality in the United States is preventable (Brantley et al., 2018). The leading cause of preventable maternal mortality is poor communication (Joint Commission, 2004). Nurses with burnout and job dissatisfaction report increased rates of lack of time or resources to complete such necessary care as documenting patient care, creating a plan of care, communicating with the health care team and educating the patient and her family.

As was mentioned previously, the cross-sectional nature of this study does not allow for conclusions to be drawn about causality. Since, however, burnout and job dissatisfaction among maternity nurses are poorly understood phenomena, a cross-sectional study is an appropriate first step. Future research should look to establish causal links between the work environment, job dissatisfaction and burnout, and missed care. Next steps also include linking the work environment, job dissatisfaction and burnout, and missed maternity care with patient outcomes. The survey question combined labour and delivery, postpartum and nursery nurses. Neonatal intensive care unit nurses were able to identify themselves separately. Labour and delivery, postpartum and nursery units, however, serve the same special population and are closely linked and may even share the same floor or manager, meaning that the work environment and rates of job dissatisfaction and burnout may well be

similar across the units. Future research should distinguish between the different units. Finally, though the missed care measure is self-report, which may introduce bias, this is also the most common approach to the measurement of this construct.

5 | CONCLUSION

Nurses provide the bulk of labour care for women giving birth in the United States. Despite their critical role in caring for mothers and their newborn infants, more than half report missing at least one necessary patient care activity on their last shift, raising concerns about care quality and safety. Many maternity nurses report job dissatisfaction and burnout, and these nurses report increased rates of missed care. Work environments marked by collegial relationships with physicians, support from nurse managers, adequate resources and staffing, nurse participation in hospital leadership and opportunities for professional development can help to decrease nurse job dissatisfaction and burnout, reduce missed care and improve maternal and infant outcomes.

6 | IMPLICATIONS FOR NURSING MANAGEMENT

One piece of good news for nurse managers is that both burnout and job dissatisfaction are modifiable. There are concrete steps managers can take to mitigate burnout and job dissatisfaction among their staff. For instance, there is evidence to support that resilience training and mindfulness may mitigate nurse burnout (Magtibay, Chesak, Coughlin, & Sood, 2017; van der Riet, Levett-Jones, & Aquino-Russell, 2018). Such trainings may be made available in a variety of ways—from online offerings to in-person trainings—and are within the purview of a nurse manager to offer to her/his nurses. A recent publication by the Joint Commission indicates that leadership empowering behaviours are associated with nurse empowerment that may combat burnout and job dissatisfaction (The Joint Commission, 2019). 'Leadership empowering behaviours' include managers encouraging nurses to voice their opinions and participate in decisions related to their work, demonstrating confidence nurses' high-performance abilities, recognizing accomplishments and providing means for nurses to improve their skills and knowledge (The Joint Commission, 2019). Adopting these leadership behaviours is another way nurse managers can mitigate nurse dissatisfaction and burnout. The presence of a supportive nurse manager is a critical aspect of a positive work environment. In general, an improved work environment results in decreased rates of job dissatisfaction and burnout. Specific ways to improve the work environment include ensuring adequate nurse staffing and resources, nurturing collegial physician–nurse relationships, ensuring nurses having input into organisational affairs, encouraging professional development and being a supportive manager (White et al., 2019). Both better work environments and decreased rates of job dissatisfaction and burnout are associated with less missed care (Lake et al., 2020; Smith et al., 2020). Less missed care is associated with better patient outcomes and satisfaction.

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TABLE 1

Characteristics of nurses (n_{total} = 1,538)

	Total sample	Nurses with Job dissatisfaction	Nurses with burnout
Sample, No. (%)	1,538 (100)	291 (19)	381 (24.8)
Female, No. (%)	1,531 (99.8)	-	-
Age, mean (*SD*), year	47.8 (12)	49.3 (11.2)[*]	49.6 (11)[*]
RN experience, mean (*SD*), year	20.5 (12.6)	22 (11.9)[*]	22.7 (12.5)[*]
Non-native English, No. (%)	210 (13.7)	46 (15.8)	49 (12.9)[*]
Race, No. (%)			
White	1,200 (79.3)	227 (78.6)	303 (81)
Black	99 (6.5)	25 (8.7)	21 (5.6)
Filipino	74 (4.9)	11 (3.8)	17 (4.6)
Asian	66 (4.4)	16 (5.5)	19 (5.1)
BSN, No. (%)	870 (56.6)	151 (51.9)	211 (55.4)
Any missed care, No. (%)	868 (56.4)	210 (72.6)[*]	322 (84.5)[*]

[*]
p-value   .001.

TABLE 2

Hospital characteristics ($n = 275$)

	N (%)
Bed size[†]	
250 beds	87 (31.6)
>250 & 500 beds	134 (48.7)
>500 beds	53 (19.3)
Teaching[†]	
None	110 (40.0)
Minor	122 (44.4)
Major	36 (13.1)
Technology[†]	
Low	112 (40.7)
High	147 (53.5)
Obstetric Level[‡]	
Uncomplicated maternity and newborn	11 (7.5)
All uncomplicated and most complicated	47 (32.2)
All serious illnesses and abnormalities	64 (43.8)

[†] One hospital missing size; seven missing teaching status; sixteen missing technology status.

[‡] Twenty-four hospitals missing obstetric level.

TABLE 3

Effects of nurse burnout and job dissatisfaction on missed care

Variable	Bivariate		Adjusted for nurse characteristics		Adjusted for nurse and hospital characteristics	
	OR	95% CI	OR	95% CI	OR	95% CI
Burnout [†]	4.0	3.0–5.5 [*]	4.1	3.0–5.5 [*]	4.0	3.0–5.5 [*]
Job Dissatisfaction [†]	3.4	2.4–4.9 [*]	3.3	2.3–4.8 [*]	3.4	2.3–4.9 [*]

[*]
p value $< .001$.

[†] n: bivariate ($n = 1,312$); partial adjusted ($n = 1,262$); full adjusted ($n = 1,259$).