



This is a repository copy of *Nursing care left undone in community settings: Results from a UK cross-sectional survey*.

White Rose Research Online URL for this paper:
<https://eprints.whiterose.ac.uk/158930/>

Version: Published Version

Article:

Senek, M., Robertson, S. orcid.org/0000-0002-5683-363X, Ryan, T. orcid.org/0000-0002-8549-3101 et al. (4 more authors) (2020) Nursing care left undone in community settings: Results from a UK cross-sectional survey. *Journal of Nursing Management*, 28 (8). pp. 1968-1974. ISSN 0966-0429

<https://doi.org/10.1111/jonm.12995>

Reuse

This article is distributed under the terms of the Creative Commons Attribution (CC BY) licence. This licence allows you to distribute, remix, tweak, and build upon the work, even commercially, as long as you credit the authors for the original work. More information and the full terms of the licence here:
<https://creativecommons.org/licenses/>

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>



Nursing care left undone in community settings: Results from a UK cross-sectional survey

Michaela Senek PhD, Research Associate¹ | Steve Robertson RN, RHV, PhD, Programme Director² | Tony Ryan PhD, Professor¹ | Katie Sworn PhD, Research Associate³ | Rachel King RN, PhD, Research Associate¹ | Emily Wood PhD, Research Fellow¹ | Angela Tod PhD, Professor¹

¹Division of Nursing and Midwifery, University of Sheffield, Sheffield, UK

²RCN Research Alliance, School of Nursing & Midwifery, University of Sheffield, Sheffield, UK

³Systematic Reviewing, HEDS, School of Health and Related Research, University of Sheffield, Sheffield, UK

Correspondence

Michaela Senek, Division of Nursing and Midwifery, University of Sheffield, Barber House Annexe, 3a Clarkehouse Road, Sheffield S10 2LA, UK.
Email: m.senek@sheffield.ac.uk

Funding information

The project was funded by the Royal College of Nursing (RCN) as part of the Strategic Research Alliance (SRA) between the RCN and the University of Sheffield. The views expressed are those of the author(s) and not necessarily those of the RCN or the University of Sheffield.

Abstract

Aim: To demonstrate the prevalence of care left undone and its relationship to registered nurse staffing levels within community nursing.

Background: Much research has been completed on nursing care left undone in the acute sector. Little has been done in the community nursing context.

Method: Secondary analysis from a cross-sectional survey of 3,009 registered nurses working in the community and care home sector was completed. Measures reported are 'care left undone', 'nurse staffing levels' and 'type of shift'.

Results: Only 37% of community respondents, and 81% of care home staff, reported having the planned number of nurses on their last shift. Prevalence of care left undone was 34% in the community sector, 33% in the care home sector and 23% in primary care. Care left undone increased as the proportion of registered nurses fell below planned numbers.

Conclusion: Care left undone is a significant issue across the community nursing context and is related to registered nurse staffing levels.

Implications for Nursing Management: This work is the first to look directly at the relationship of registered nurse staffing levels to care left undone in the community. Current policy on safe staffing needs to ensure consideration of the community nursing context.

KEYWORDS

care left undone, community health nursing, missed care, nurse staffing, primary health care, residential facilities

1 | INTRODUCTION

Set against the background of a global crisis within the health care workforce (Britnell, 2019), concerns have been expressed for some time about what constitutes the correct number and training level of nurses required to promote safe and effective patient

care. While debates around these concerns are far from new (e.g., McKenna, 1995), high-quality empirical work has helped to develop an evidence base around such debates over the last two decades. Research in California (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; Aiken et al., 2010) has demonstrated a clear association between nurse-to-patient ratio and patient mortality and

This is an open access article under the terms of the Creative Commons Attribution License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2020 The Authors. *Journal of Nursing Management* published by John Wiley & Sons Ltd.

failure to rescue (deaths following complications). The European-led RN4CAST study replicated and expanded this work and confirmed that across all 12 European countries that participated, hospitals with better nurse staffing (a greater proportion of professional nurses) had better outcomes for patients and for nurses (Aiken et al., 2017).

While the main patient outcome measures in much of this work have been related to mortality rates, there has been interest shown in other indicators such as patient safety, adverse events and care quality in relation to discussions around nursing ratios and skill mix (the proportions of different levels of nurse, including the level of qualifications, expertise and experience, available for patient care during a nursing shift; Jacob, McKenna, & D'Amore, 2015). Linked to this interest in broader patient outcomes has been the impact of nurse staffing levels and skill mix on 'missed care' or 'care left undone' with the former being defined as 'any aspect of required care that is omitted either in part or in whole or delayed' (Kalisch & Williams, 2009). For example, research across 46 NHS hospitals in England (Ball, Murrells, Rafferty, Morrow, & Griffiths, 2014) highlighted that 86% of nurses reported care being left undone on their last shift and that the majority of this related to aspects of relational care (such as comforting and talking with patients) and health education. Furthermore, this work noted that the nurse-to-patient ratio was significantly associated with the incidence of 'missed care' and suggested that care not being delivered could be the mechanism through which low nurse staffing levels adversely affect quality and safety. This mechanism has been acknowledged and detailed in some of the conceptual models associated with missed care such as the Process of Care and Outcomes Model (Lucero, Lake, & Aiken, 2009). Building on this work, Ball et al. (2018) then demonstrated that missed nursing care was associated with increased odds of patients dying following common surgical procedures, further supporting the view that missed care mediates the relationship between registered nurse staffing levels and patient mortality. In addition, a systematic review of the impact of nursing care missed on patient outcomes showed decreased patient satisfaction, medication errors, urinary tract infections, falls, pressure ulcers and readmissions could all be associated with missed care—though the three studies reviewed to consider the link between missed care and mortality found no clear association (Recio-Saucedo et al., 2018).

It is important to note that many countries have roles located between health care assistants and registered nurses, such as licensed practical nurses and the new nursing associate role in England. These staff may also have an impact on the prevalence of missed care, though it is not within the scope of this paper to consider this. Similarly, the perspective of the patient on unmet needs (another way of considering missed care) and the relationship that this has to staffing levels is of key importance, but is also beyond the remit of this paper.

There are therefore many studies that provide robust evidence about required staffing levels for delivering safe and effective care and on the relationship of nurse staffing and skill mix to missed care.

However, the majority of this empirical work has been done within acute, hospital care settings. Far less research has considered nurse staffing levels, missed care and service user outcomes in community and primary care settings, with one recent study stating that it is 'the first to consider the concept of missed care in community based nursing' (Phelan, McCarthy, & Adams, 2018a, 2018b, p. 626). Certainly, work on missed care in community nursing contexts lags far behind that in the acute sector. Indeed, a recent systematic review of missed care in the community context (Sworn & Booth, 2019) identified only five empirical studies (reported in eight publications), undertaken in Ireland (Phelan & McCarthy, 2016; Phelan et al., 2018a, 2018b), Australia (Blackman, Henderson, Willis, & Toffoli, 2015; Henderson, Willis, Blackman, Toffoli, & Verrall, 2016; Henderson, Willis, Xiao, & Blackman, 2017; Willis et al., 2016) and the United States (Nelson & Flynn, 2015). Collectively, this small body of research provides early insight into the prevalence of, types of and reasons for missed care in community nursing and care home settings. As with acute care sector findings, staffing levels and patient acuity stood out as major reasons given for the occurrence of missed care. However, none of these studies looked directly at the relationship between registered nurse staffing levels and the prevalence of missed care.

This paper therefore aims to contribute to the emerging evidence base on missed care in primary and community care settings by reporting findings from a UK-based survey administered by the Royal College of Nursing in 2017. Specifically, we focus on data relating to a single question on care left undone within the community care, primary care and care home setting. We consider prevalence of care left undone and its relationship to levels of registered nursing staff within these settings.

2 | METHODS

This paper presents secondary data analysis from a cross-sectional Staffing Survey conducted in the UK by the Royal College of Nursing (RCN, 2017). Data were collected for this survey between 14 May and 30 May 2017.

2.1 | Participants

The survey was administered via email to all RCN members, shared on the RCN website and promoted via social media. Respondents were therefore both RCN members and non-members. The survey covered all settings and types of health care providers both within and outside NHS settings. The survey elicited over 30,000 responses (RCN, 2017).

For the purposes of this paper, we considered only registered nurses who worked in community settings. In the UK, registered nurses may work in a variety of roles and settings within the community. The majority work within the NHS, some having a specialist qualification in district nursing and working wholly within district nursing teams, and others working in such teams without

this specialist qualification or in other community nursing roles. However, there are also nurses who work specifically in primary care (usually understood to mean the general practice (GP) sector in the UK) and they are employed by, and based fully within, GP surgeries and known as 'practice nurses'. Finally, there are registered nurses who work in the care home setting, the majority of whom are privately employed. In this analysis, we included only those registered nurses who could be clearly linked to the immediate clinical setting. This created a final sample of 3,009 registered nurses working within community settings.

2.2 | Data sharing

To meet requirements of General Data Protection Legislation (GDPR), a data sharing agreement was developed between [University of Sheffield and Royal College of Nursing] and the RCN in order to allow raw data from the survey to be shared.

2.3 | Measured outcomes

Participants in the survey had been asked to provide information relating to their experiences of staffing during the last shift they had worked. For the purpose of this paper, the measures included are 'nurse staffing levels', 'care left undone' and 'type of shift'. For 'nurse staffing levels', respondents were asked to recall the number of registered nurses planned to be on their last shift, and the actual number of registered nurses who were on their last shift. This was used to calculate the staffing level ratio. It should be noted that for each respondent, it is unclear if the recorded planned number was the product of a formal assessment of nursing need (e.g., as a result of the use of a tool to estimate skill mix), or if the figure is based upon local expectation and practice. For 'care left undone', respondents were asked to rate the following single-measure question on a 5-point scale (strongly agree, agree, neither agree nor disagree,

disagree and strongly disagree): 'Due to the lack of time, I had to leave necessary care undone'. Care left undone was noted to have occurred where the response was 'agree' or 'strongly agree'. This single-measure question was used (rather than a battery of specific questions about types of care missed) as it was applicable across the wide variety of nursing settings covered in the original survey. For 'type of shift', respondents were asked to choose from 'day shift' or 'night shift'.

2.4 | Data analysis

This was performed using SPSS 25 software. Descriptive statistics were carried out to identify the distribution of responses and identify any extreme outliers or out-of-range responses. We determined staffing levels by dividing the actual number of RNs by the number of planned RNs on the respondent's last shift. These data were used to calculate the staffing level ratio.

The staffing variables were grouped into bands (see Tables 1 and 2). We measured frequency including counts and percentages of cases of care left undone and understaffing to establish central tendency. Means of staffing ratio were compared for binary outcome (care left undone/care not left undone) to test for statistical differences. An independent *t* test was used to explore differences in staffing levels where 'care left undone' was present or absent. Analysis was undertaken in two subsamples: firstly, community and primary care, and secondly, care home respondents. Our rationale for this was to account for the very different nursing practices and workplace environments within each of these data sets.

2.5 | Statistical analysis

All data are expressed as mean and standard deviation (SD) with 95% confidence interval (CI), and the Shapiro-Wilk test was used to assess normality. Statistical significance was assessed using *t* test. A

TABLE 1 Proportion of 'care left undone' and 'no care left undone' by role and RN as a proportion of planned establishment in community and primary care

Role	RN as a proportion of planned establishment	Care left undone, % (N)	No care left undone, % (N)	Neither agree nor disagree, % (N)
Community nurse	Understaffed	67% (663)	39% (264)	42% (283)
	Full complement	33% (327)	23.5% (77)	60.3% (197)
	Total (N = 991)		34.2% (339)	47.9% (475)
District nurse	Understaffed	76% (329)	(37.3%) 123	42.4% (139)
	Full complement	24% (104)	22.1% (23)	67.3% (70)
	Total (N = 433)		33.7% (146)	48.3% (209)
Practice nurse	Understaffed	32% (102)	26.5% (27)	57% (58)
	Full complement	68% (216)	(21.4%) 46	63.3% (137)
	Total (N = 318)		23% (73)	61% (195)
Total N = 1,742			32% (558)	50.5% (879)
				17.5% (305)

TABLE 2 Proportion of 'care left undone' and 'no care left undone' by day or night shift and RN as a proportion of planned establishment in care homes

Nature of shift	RN as a proportion of planned establishment		Care left undone, % (N)	No care left undone, % (N)	Neither agree or disagree, % (N)
Day	Understaffed	21.5% (193)	52.5% (101)	27.8% (54)	19.7% (38)
	Full complement	78.5% (704)	28.4% (200)	49.6% (349)	22% (155)
	Total day (N = 897)		33.5% (301)	45% (403)	21.5% (193)
Night	Understaffed	12.2% (45)	33.2% (15)	35.6% (16)	31.2% (14)
	Full complement	87.8% (325)	29.8% (97)	49.8% (162)	20.4% (66)
	Total night = 370		30% (112)	48% (178)	22% (80)
Total N = 1,267			32.6% (413)	46% (581)	21.4% (273)

probability below 0.05 ($p < .05$) was considered to be a significant difference. Correlation was assessed using Pearson's correlation or Spearman's rho test. A chi-square test was used for categorical variables.

3 | FINDINGS

3.1 | Community and primary care

The results from the community and primary care data subset include responses from 1,742 registered nurses, working in a community or GP practice nurse role, including 991 community staff nurses, 433 district nurses and 318 practice nurses.

Table 1 indicates the proportion of registered nurses on duty during the last shift for each community or primary care nursing role and an indication of reported care left undone. There were 558 cases of care left undone reported by respondents (32%). Table 1 shows the proportion of reported care left undone by respondent role. Of the total reported care left undone during the most recent shift, a third of cases were reported by community staff nurses and district nurses (34.2% and 33.7%, respectively). Practice nurses were less likely to report care left undone (reported in 73 cases, 23%).

It can be noted that overall, just over one-third of shifts were reported to have the full allocation of registered nurses (36.6%, $N = 638$), while almost two-thirds (63.4% $N = 1,104$) reported less-than-full establishment of registered nurses. There was more 'care left undone' on understaffed shifts than on shifts with full complement (39% versus 23%). There was a correlation between whether a shift was understaffed or not and occurrence of 'care left undone' ($\chi^2 (1, N = 1,437) = 0.197, p < .01$). On shifts that had less-than-full allocation of registered nurses, the number of registered nurses on duty, as a proportion of anticipated/expected per shift in question, was $M = 0.65, SD = 0.14, 95\% CI (0.64-0.66)$.

A normality check of the data showed a normal distribution between the care left undone and staffing ratios. Staffing ratio was greater on shifts that reported 'no care left undone', $M = 0.66, SD = 0.14, 95\% CI (0.65-0.67)$, than 'care left undone', $M = 0.63, SD = 0.14, 95\% CI (0.62-0.65), t (2.7) = 892, p = .06$.

3.2 | Care homes

Our results from the care home data subset include responses from 1,267 registered nurses, working in a residential or nursing home settings (both publicly and privately managed homes), including 1,054 staff nurses, 157 registered nurses working as the manager of a facility, 24 matrons and 32 who self-identified as specialist nurses (no information was collected about the nature of this specialism). Managers and matrons were included as they are often involved in direct care in the care home setting in the UK.

Table 2 indicates the categorized proportion of registered nurses on duty during the last shift in care homes. It can be noted that just over four-fifths (81.2%, $N = 1,029$) of shifts were reported to have the full allocation of registered nurses. On shifts that had less-than-full allocation of registered nurses, staffing level in care homes was $M = 0.54, SD = 0.1, 95\% CI (0.53-0.56)$.

Staffing ratio in care homes was not significantly lower on shifts where 'care was left undone' ($M = 0.54, SD = 0.2, 95\% CI [0.52-0.56]$) compared to shifts that reported 'no care left undone' ($M = 0.55, SD = 0.12, 95\% CI (0.52-0.58), t (0.8) = 184, p = .4$).

However, when we assessed the differences between day and night shifts, we found that a higher proportion of day shifts were understaffed (23.5%) compared to night shifts (only 12.2%; see Table 2). We further went on to assess if there were any differences between day and night shifts, staffing levels and care left undone.

On day shifts, there was a higher proportion of 'care left undone' on understaffed shifts compared to shifts with a full complement of staff (65% and 36%, respectively). There was a significant correlation between 'care left undone' and whether a shift was understaffed or had a full complement of registered nurses ($\chi^2 (1, N = 897) = 0.24, p < .01$); however, the difference in the level of understaffing was not significant ($p = .18$). On night shifts, there was no correlation between whether a shift was understaffed and the reported care left undone ($\chi^2 (1, N = 370) = 0.069, p = .24$).

4 | DISCUSSION

In line with previous studies from Ireland (Phelan & McCarthy, 2016) and Australia (Henderson et al., 2017), this study notes a

prevalence of nursing care left undone reported by registered nurses within the UK community care and care home sector that is sufficiently high to warrant concern. The reported rates of community nursing care left undone in the current study appear lower than those reported in the community context in Ireland (Phelan & McCarthy, 2016) where the rates for many aspects of care ran at over 50%. However, the current study relies on a single question measure, whereas previous community studies have used the MISSCARE survey tool (Kalisch & Williams, 2009), or amended versions of this, which report on missed care in relation to diverse specific aspects of care (e.g., assessment, promotion of skin integrity, health education, documentation). It is possible that the single generic question asked in the current study does not help with the recall of care left undone which measures such as the MISSCARE tool, using specific cases, might elicit. In addition, a review by Jones, Hamilton, and Murry (2015) has shown that reports of unfinished care increase with longer periods of recall. Given the current study asked about the last shift worked, this could also partly account for the comparatively lower rates of prevalence. We believe these factors, alongside possible response bias (discussed below in 'Limitations'), may have led to an under-reporting of the prevalence of care left undone in the current study.

There was a relatively low prevalence of care left undone within the UK primary care nursing context. We could find no other UK or international studies to compare this prevalence to. It is possible that patient appointment systems, particularly clearly defined appointment times, might partly account for this lower rate of care left undone compared to other community care nursing contexts. The greater focus on specific tasks (rather than relational care) in primary care nursing, and the incorporation of time for patient education into the allocated length of time for appointments could also be important factors here, given that relational care and health education are the most frequently reported types of care left undone (Ball et al., 2014).

Importantly, the current study looked specifically at the relationship between the proportion of registered nurses (actual number/expected number) on duty and the prevalence of care left undone. We could identify no previous UK or international work that has looked directly at this relationship in the community care, primary care or care home context. Our study demonstrates a significant relationship with lower proportions of registered nurses than anticipated leading to higher prevalence of care left undone across these settings. As noted earlier, work in the acute sector has suggested that nursing care left undone might be the mechanism through which low nurse staffing levels adversely affect the quality and safety of patients (Ball et al., 2014; Kalisch, Tschannen, & Lee, 2011). While much mandatory and legislative work on safe staffing numbers in the four countries of the UK has focused on acute care settings, we would suggest that ensuring adequate registered nurse numbers in community settings also requires attention. This is a concern if high-quality, safe and effective care is to be maintained in community nursing. It is particularly important in a policy context, such as that in the UK, where there is a shift

towards more health and social care, and therefore concomitant nursing care, in community settings. We also now know that frailty and multi-morbidity are prevalent in the community across the life course, especially for those older adults living at home (Hanlon et al., 2018). This brings with it significant population need, dependent upon the provision of skilled nursing care, at a time when health care providers are also dealing with the challenges of severe shortages in the community nursing workforce (Charles, Ham, Baird, Alderwick, & Bennett, 2018). Little research evidence is currently available concerning what constitutes appropriate levels of registered nurses in various community contexts, and this makes it difficult to proceed with mandating or legislating for safe staffing within the community setting. Jackson, Wright, and Martin (2016) highlight both the lack of research considering safe staffing in community nursing contexts and the difficulty in establishing generalizable recommendations on numbers alongside the prevailing complexity across health care setting and environments. Further, research in this area would help community nurse managers rationalize, articulate and justify their staffing requirements.

Also of note in the current study is that the care home sector reported far more shifts with the expected full complement of registered nurses than the community and primary care sector. We suggest this may be related to mandatory staffing requirements for at least the vast majority of the sector. It is mandatory for one RN to be on duty in a nursing home, thus generating the high rates of full complement seen in the current study. Importantly, despite this high planned level of registered nurses, the prevalence of care left undone in the care home sector remained high, suggesting that current planned levels of registered nurses are often not sufficient in providing high-quality, safe and effective care in the care home setting.

Finally, we noted a lower prevalence of care left undone on night shifts compared with day shifts in the care home sector. However, in line with Willis et al.'s (2016) study on missed care in residential care, this difference was not statistically significant. One possible explanation for this difference would be the reduced number of patient tasks required on a care home night shift leaving more time for the often-missed relational care.

5 | LIMITATIONS

As with almost all studies on missed care and care left undone (Jones et al., 2015), our study relies on nurses self-reporting. Such reporting is open to subjective judgement, not least in terms of what level and type of care are required and therefore what an individual nurse may consider 'care left undone'. The use of a single, generic question to capture care left undone in this study could further increase the level of subjectivity in data responses, by being more prone to subjective judgement than using a validated tool incorporating a battery of questions related to specific care tasks such as the MISSCARE tool. This single construct measure could also miss some of the important nuances related to differing activities of care. Furthermore, it does not tell us which aspects of care are left undone, by whom and

within what context within the community nursing environment. In addition, for nurses working relatively autonomously, such as district nurses, assessing 'care left undone' may be less difficult than would be the case for those respondents working in larger teams, such as in care homes. This is because those working in larger teams may be unaware of the nursing actions taken by others.

We did not use regression modelling to assess whether other variables (such as patient volume and acuity, availability of other ancillary and professional health staff, issues of geography such as rural settings and time required to travel) influenced the relationship between the proportion of registered nurses and the level of care left undone. Future research in the community nurse context could consider such modelling, though accounting for variables in the community nursing context is perhaps even more complex than in the acute care setting which is rather more bounded.

While the sample size in this study offers a strong basis for generalizability, no data were examined in relation to whether the sample demographics (gender, ethnicity, etc.), years of experience post-qualification or the numbers of those with specialist qualifications were representative of the wider community nursing workforce. Caution should therefore be exercised in this regard.

Finally, the team has identified issues with data quality. A significant proportion of respondents chose to state that they neither 'agreed nor disagreed' with the statement 'Due to the lack of time, I had to leave necessary care undone'. This is likely indicative of a response bias (Furnham, 1986) with nurses being reluctant to self-report this issue for fear it reflects badly on them. There is therefore the potential that 'care left undone' is under-reported in this paper. Due to recall bias, we also cannot verify the accuracy of calculations of staffing ratios as they were based on participants' recall data. We know from previous research (Althubaiti, 2016) that recall bias is a systematic error that occurs when participants do not remember previous events or experiences accurately, and this could be the case here.

6 | CONCLUSION

Community nursing staff reported a high prevalence of care left undone on their last shift, whereas primary care nurses reported a lower, but still clinically important, prevalence. Less than 40% of community nursing shifts had the planned number of registered nurses present, and the prevalence of care left undone increased as the proportion of registered nurses dropped below planned numbers.

In the care home sector, despite over 80% of shifts reporting the planned number of registered nurses, there remained a high prevalence of care left undone. This was the case across both day and night shifts, raising questions about whether the planned number of registered nurses is sufficient for providing safe and effective care in the care home sector.

For community nurse managers to make effective, evidence-based safe staffing decisions, more research is required to

examine which aspects of care are left undone, and for whom, in various community contexts. Caseload management tools for calculating staffing levels in community nursing could be useful here (Jackson et al., 2016) and could be implemented, while the levels of care left undone were simultaneously measured to gauge their impact. In addition, such research should be more nuanced, accounting for a wider variety of variables such as patient acuity, skill mix and the geography of locations, among others. Policy consideration should be directed at current staffing levels in the community context and whether these are adequate even when shifts have the fully planned numbers of staff. This need is especially critical in the care home sector where even shifts with a full planned complement of registered nurses show a concerning level of care left undone.

ACKNOWLEDGEMENTS

We would like to thank the Royal College of Nursing for allowing us to complete this secondary analysis of their data and to acknowledge Claire Helm and Julian Russell for their role in the design of the original survey.

ETHICAL APPROVAL

Once in place, ethical approval was then obtained from [University of Sheffield and Royal College of Nursing] prior to the commencement of secondary data analysis.

ORCID

Steve Robertson  <https://orcid.org/0000-0002-5683-363X>

Emily Wood  <https://orcid.org/0000-0002-1910-6230>

REFERENCES

- Aiken, L. H., Clarke, S. P., Sloane, D. M., Sochalski, J., & Silber, J. H. (2002). Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. *JAMA*, *288*(16), 1987–1993.
- Aiken, L. H., Sloane, D. M., Cimiotti, J. P., Clarke, S. P., Flynn, L., Seago, J. A., ... Smith, H. L. (2010). Implications of the California nurse staffing mandate for other states. *Health Services Research*, *45*(4), 904–921.
- Aiken, L. H., Sloane, D., Griffiths, P., Rafferty, A. M., Bruyneel, L., McHugh, M., ... RN4CAST Consortium (2017). Nursing skill mix in European hospitals: Cross-sectional study of the association with mortality, patient ratings, and quality of care. *BMJ Quality and Safety*, *26*(7), 559–568.
- Althubaiti, A. (2016). Information bias in health research: Definition, pitfalls, and adjustment methods. *Journal of Multidisciplinary Healthcare*, *9*, 211.
- Ball, J. E., Bruyneel, L., Aiken, L. H., Sermeus, W., Sloane, D. M., Rafferty, A. M., ... RN4Cast Consortium (2018). Post-operative mortality, missed care and nurse staffing in nine countries: A cross-sectional study. *International Journal of Nursing Studies*, *78*, 10–15.
- Ball, J. E., Murrells, T., Rafferty, A. M., Morrow, E., & Griffiths, P. (2014). 'Care left undone' during nursing shifts: Associations with workload and perceived quality of care. *BMJ Quality & Safety*, *23*(2), 116–125.
- Blackman, I. R., Henderson, J. A., Willis, E. M., & Toffoli, L. P. (2015). *After hours nurse staffing, work intensity and quality of care-missed care study: New South Wales public and private sectors. Final report to the New South Wales Nurses and Midwives' Association*. Adelaide, SA: Flinders University.
- Britnell, M. (2019). *Human: Solving the global workforce crisis in healthcare*. Oxford, UK: Oxford University Press.

- Charles, A., Ham, C., Baird, B., Alderwick, H., & Bennett, L. (2018). *Reimagining community services: Making the most of our assets*. London, UK: King's Fund.
- Furnham, A. (1986). Response bias, social desirability and dissimulation. *Personality and Individual Differences*, 7(3), 385–400.
- Hanlon, P., Nicholl, B. I., Jani, B. D., Lee, D., McQueenie, R., & Mair, F. S. (2018). Frailty and pre-frailty in middle-aged and older adults and its association with multimorbidity and mortality: A prospective analysis of 493 737 UK Biobank participants. *The Lancet Public Health*, 3(7), e323–e332.
- Henderson, J., Willis, E., Blackman, I., Toffoli, L., & Verrall, C. (2016). Causes of missed nursing care: Qualitative responses to a survey of Australian nurses. *Labour & Industry: A Journal of the Social and Economic Relations of Work*, 26(4), 281–297. <https://doi.org/10.1080/10301763.2016.1257755>
- Henderson, J., Willis, E., Xiao, L., & Blackman, I. (2017). Missed care in residential aged care in Australia: An exploratory study. *Collegian*, 24(5), 411–416. <https://doi.org/10.1016/j.colegn.2016.09.001>
- Jackson, C., Wright, T., & Martin, A. (2016). *Safe caseloads for adult community nursing services—an updated review of the evidence*. Canterbury, UK: Canterbury Christ Church University.
- Jacob, E. R., McKenna, L., & D'Amore, A. (2015). The changing skill mix in nursing: Considerations for and against different levels of nurse. *Journal of Nursing Management*, 23(4), 421–426.
- Jones, T. L., Hamilton, P., & Murry, N. (2015). Unfinished nursing care, missed care, and implicitly rationed care: State of the science review. *International Journal of Nursing Studies*, 52(6), 1121–1137.
- Kalisch, B. J., Tschannen, D., & Lee, K. H. (2011). Do staffing levels predict missed nursing care? *International Journal for Quality in Health Care*, 23(3), 302–308.
- Kalisch, B. J., & Williams, R. A. (2009). Development and psychometric testing of a tool to measure missed nursing care. *JONA: the Journal of Nursing Administration*, 39(5), 211–219.
- Lucero, R. J., Lake, E. T., & Aiken, L. H. (2009). Variations in nursing care quality across hospitals. *Journal of Advanced Nursing*, 65(11), 2299–2310.
- McKenna, H. P. (1995). Nursing skill mix substitutions and quality of care: An exploration of assumptions from the research literature. *Journal of Advanced Nursing*, 21(3), 452–459.
- Nelson, S. T., & Flynn, L. (2015). Relationship between missed care and urinary tract infections in nursing homes. *Geriatric Nursing*, 36(2), 126–130.
- Phelan, A., & McCarthy, S. (2016). *Missed care: Community nursing in Ireland*. Dublin, Ireland: University College Dublin and Irish Nurses and Midwives Organisation Report.
- Phelan, A., McCarthy, S., & Adams, E. (2018a). Examining missed care in community nursing: A cross section survey design. *Journal of Advanced Nursing*, 74(3), 626–636. <https://doi.org/10.1111/jan.13466>
- Phelan, A., McCarthy, S., & Adams, E. (2018b). Examining the context of community nursing in Ireland and the impact of missed care. *British Journal of Community Nursing*, 23(1), 34–40. <https://doi.org/10.12968/bjcn.2018.23.1.34>
- RCN (2017). *Safe and effective staffing: Nursing against the odds*. London, UK: RCN.
- Recio-Saucedo, A., Dall'Ora, C., Maruotti, A., Ball, J., Briggs, J., Meredith, P., ... Griffiths, P. (2018). What impact does nursing care left undone have on patient outcomes? Review of the literature. *Journal of Clinical Nursing*, 27(11–12), 2248–2259.
- Sworn, K., & Booth, A. (2019). *Systematic review: 'Missed care' and the impact on safety in primary, community and nursing home settings*. Sheffield, UK: The University of Sheffield.
- Willis, E., Price, K., Bonner, R., Henderson, J., Gibson, T., Hurley, J., & Currie, T. (2016). *Meeting residents' care needs: A study of the requirement for nursing and personal care staff*. Canberra, ACT: Australian Nursing and Midwifery Federation.

How to cite this article: Senek M, Robertson S, Ryan T, et al. Nursing care left undone in community settings: Results from a UK cross-sectional survey. *J Nurs Manag*. 2020;00:1–7. <https://doi.org/10.1111/jonm.12995>