A review of safe-staffing models and their applicability to care homes

Mitchell, G., Cousins, C., Burrows, R., & Cousins, G. (2017). A review of safe-staffing models and their applicability to care homes. *Journal of Nursing Management*, 25(2), 157-162. <https://doi.org/10.1111/jonm.12450>

Published in:
Journal of Nursing Management

Document Version:
Peer reviewed version

Queen's University Belfast - Research Portal:
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A review of safe-staffing models and their applicability to care homes

Abstract

Presently, there are a range of evidence-based staffing tools which have been used to inform nursing and healthcare capacity. These tools are designed to be used with professional judgment and include frameworks such as Rhys Hearn (1970), National Services Scotland Care Home Staffing Project (2009), a variety of RCN Tool Kits including the Older People in Hospital's tool (2012) and Shelford's Safer Nursing Tool (2013). These safe-staffing tools are used to score a patient or resident's level of dependency across a number of domains, for example a patient/resident's ability to wash, dress, mobilise or go to the bathroom independently. While these tools have been beneficial with regards to informing staff levels there are a number of limitations that are important to highlight. Succinctly, most are not readily applicable to nursing care home settings nor do they focus on more person-centred aspects of care.

Background

Assessing the needs of individual patients, or residents, is paramount when making decisions about safe nursing care and staff requirements within care home settings. According to National Institute of Clinical Excellence (NICE) (2014) there is no single nursing staff-to-patient ratio that can be applied across the entire range of wards to safely meet patients' nursing needs. The same can be said for care homes, as well as other healthcare settings. NICE (2014) recommends that levels of nursing staff should be assessed at a ward, or care home level to assure that the needs of patients are continually being met based upon individual unique need.

In recent years there has been increased attention on staffing levels within healthcare settings. This has probably been in response to the disastrous effects of short staffing in National Health Service (NHS) hospitals like Mid Staffordshire (2013). The Francis Inquiry (The Mid Staffordshire NHS Foundation Trust Public Inquiry, 2013) outlined a number of opportunities where the National Health Service (NHS) could improve care delivery. One important aspect pertained to inadequate staffing levels at Mid Staffordshire which led to poor quality of care and quality of life outcomes.

Current financial constraints exacerbate problems around safe staffing on units (RCN, 2010). Safe-staffing does have the potential to reduce costs associated with avoidable patient complications such as: deep vein thrombosis, pressure ulceration, falls and infection (Griffiths et al, 2010). However with finances constrained across the UK it may be tempting to replace the number of nurses who provide care with cheaper, up-skilled health care assistants (RCN, 2010).

It is crucial that public and private organisations carefully examine institutional policies related to use of available resources and workforce. In short, there must be consensus about how care can be delivered guided by processes grounded in quality and efficiency. The resonating message from clinicians, academics, researchers and regulators is that no ‘one size fits all’. Having the right number of staff alone is not enough (RCN, 2010; Unison, 2015).

International Context

In Australia, the state of Victoria was the first to implement minimum nurse-to-patient ratios. The Australian Nurses Association is now working to enact legislation across other states within Australia in recognising that safe staffing ratios result in safer care and motivated nurses (Osborne, 2014). In the United States of America, similar success has been documented through the Californian Nurses Association. The benefits, similar to their Australian counterparts, related to enhanced quality outcomes (Unison, 2015). The Californian Nurses Association is now attempting to extend its campaign across America with a plan to implement minimum nurse-to-patient ratios in all States. More recently, Wales has become the first country in the UK to mandate staffing ratios in its hospitals. The Welsh assembly voted to approve the Nurse Staffing Levels (Wales) Bill (Nursing Standard News, 2016).

The successes in Australia, USA and Wales have been attributed to the strong case that nurses have made about ensuring that their units are appropriately staffed. Indeed, in the USA the Californian Nurses Association is currently close to achieving minimum nurse-to-patient ratios in the legislation of five additional states including Florida, Illinois, Massachusetts, Missouri and Pennsylvania. While there is some cause for optimism due to the aforementioned successes it should be noted the minimum nurse to patient staffing ratio legislation is applicable to acute hospitals only. Within the UK alone, a change in the law requires local health boards and NHS trusts, to calculate and agree to minimum nurse staffing levels.

As such, it is apparent that there are many hurdles ahead and perhaps this is best illustrated by the suspension of NICE’s agenda for safe-staffing by NHS England (NICE Web News, 2015). As noted by Cousins et al. (2016), care home nursing is often afforded less attention and support in comparison to the NHS despite offering more beds for patients. In short, there is much to overcome in the acute hospital setting and it is likely that, in consideration of care homes, the priority for development of safe-staffing tools is currently low. It is arguably the responsibly of care home providers to adopt or develop their own safe-staffing tools to guide their practice, due to the fact nursing care afforded to residents in a care home setting will be different from patients in other settings, for example acute care or rehabilitation.

On February 10th 2015, Unison conducted a staffing level survey (n=5100) with registered nurses throughout the UK including care settings in England, Scotland, Wales and Northern Ireland (Unison, 2015) to solicit opinion on staffing within unit settings where employed.

These findings are worth illuminating as they provide an overview of 5,100 responses. Some key findings include:

- 49% reported that they spent enough time with patients.
- 45% reported that they felt there was not adequate staff numbers to deliver safe, dignified and compassionate care.
- 40% stated they worked with a bank or agency staff member during their shift on 10.02.2015.
- 37% stated they worked over their contracted hours on 10.02.2015.
- 70% stated they were unable to take all or some of their break time during the shift.

These findings suggest that, within the UK, the current healthcare system is not working as well as it could be.

Safe-Staffing Tools

In the next section of this paper, the authors will examine some of the most important safe-staffing models that exist and have been used to guide safe-staffing in older people units in the UK today. These safe-staffing models have been designed to provide a minimum staffing level based on the current healthcare needs of the patient or a resident group. Due to the fact the needs of patients or residents can change, assessment for safe-staffing should be updated when circumstances change. As a result providers may choose to update assessments at a minimum of once per month. Safe-staffing models used to guide safe-staffing levels in the UK today include the following: Shelford Safer Nursing Care Tool (2013), RCN Toolkit for Older People's Wards (2012), Rhys Hearn (1970), and National Services Scotland Care Home Staffing Model (2009).

Shelford Safer Nursing Care Tool (2013)

There is currently only one safe-staffing tool that has been recommended by NICE (2014). The Shelford Safer Nursing Care Tool (2013) validated by Dr K Hurst is specifically for use with older people. The tool was tested across 1,000 wards, 119,000 nursing interventions and 2,800 patients over two years. While there is little doubt the tool is robust, it is currently not applicable to the care home setting. This is because the tool is based upon nursing care interventions for hospitalised patients.

An example of one of the patient categories is provided below:

Level 1a (Multiplier =1.39*)- Acutely ill patients requiring intervention or those who are UNSTABLE with a GREATER POTENTIAL to deteriorate.

Care requirements may include the following:

- Increased level of observations and therapeutic interventions
- Early Warning Score - trigger point reached and requiring escalation.

- Post-operative care following complex surgery
- Emergency admissions requiring immediate therapeutic intervention.
- Instability requiring continual observation / invasive monitoring
- Oxygen therapy greater than 35% + / - chest physiotherapy 2 - 6 hourly
- Arterial blood gas analysis - intermittent
- Post 24 hours following insertion of tracheostomy, central lines, epidural or multiple chest or extra ventricular drains
- Severe infection or sepsis

RCN Toolkit for Older People's Wards (2012)

The RCN toolkit for older people's ward is also applicable to hospital settings and is therefore not appropriate to care home settings. Despite this, it is useful to illuminate some of the recommendations from the older people's ward toolkit given that the care home is likely to include residents from this population. The RCN (2012) recommends the following for basic safe care:

- 50:50 mix of registered nurses and health care assistants.
- At least one nurse per seven patients.
- At least one member of staff per 3.3 to 3.8 patients.
- At least four registered nurses for a typical 28 bed ward.
- At least eight care staff on duty for a typical 28 bed ward.

The RCN (2012) go on to recommend the following for ideal, good quality care in older people's ward:

- 65:35 mix of registered nurses and health care assistants.
- At least one nurse per five to seven patients.
- At least one member of staff per 3.3 to 3.8 patients.
- Four to six registered nurses for a typical 28 bed ward.
- At least eight care staff on duty for a typical 28 bed ward.

Incidentally, these figures do not include ward sisters or nurse managers. As one may expect, these recommendations for safe-staffing numbers in older people's wards are less than those recommended in the acute care setting, such as surgical, emergency or medical wards.

Rhys Hearn (1970)

The Rhys Hearn has been in existence and utilised for quite some time. In Northern Ireland the Rhys Hearn was, until very recently, recommended by the regulator (RQIA, 2009) as the most appropriate safe-staffing tool to use within care home settings. The Rhys Hearn recommends that the following broad guide should be used to determine staffing levels in the first assessment:

Time Period		Staff	Residents
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08:00 – 14:00hrs	Ratio of	1	5
14:00 – 20:00hrs	Ratio of	1	6
20:00 – 08:00hrs	Ratio of	1	10

The strength of the Rhys Hearn (1970) is that it provides a framework for determining the amount of hours that are required for individual residents. In other words, staffing levels will go up or down depending on the individual needs of residents within the care home at the time. This is achieved by categorising each resident as either self-caring (category A), low dependency (category B), medium dependency (Category C) or high dependency (Category D). The Rhys Hearn (1970) provides 8 statements per category to guide nurse decision-making with patient placement in a category most representative of his/her resident care needs. An illustration of this can be seen below:

Description of Dependency Levels (Rhys Hearn, 1970)
<p>Medium Dependency – Typically a person in this care group:</p> <ol style="list-style-type: none"> 1. Is occasionally incontinent 2. Requires assistance in the toilet 3. Can feed him/herself, but may need minimal help 4. Needs supervision or assistance with washing 5. Needs help with dressing 6. Needs to use a walking aid or be assisted, may use a wheelchair 7. Requires assistance with financial affairs 8. Has difficulty making needs known <p>Care hours required per patient per day: 3.0 hours</p>

Once a category has been determined an amount of time is allocated to the resident per day. For self-caring, one hour per day, for low dependency, two hours per day, for medium dependency, three hours per day and for high dependency, four hours per day. Once the times are calculated for every resident in a care home then a number of hours per week that residents require can be calculated.

Rhys Hearn (1970) provides a guide for calculating staffing numbers according to care need. As asserted earlier in this paper, all safe-staffing tools are only to be used as a guide in conjunction with the clinical expertise of care home managers who know the individual needs of a resident. Unfortunately the Rhys Hearn dependency tool is now outdated and there is no single safe-staffing tool that is recommended for care homes across the UK. This illustrates the paucity of other applicable tools available to care home providers.

Additionally one major limitation of the tool is that the Rhys Hearn does not provide any evidence-based guide for determination of staff skill mix. Instead the Rhys Hearn states that on every occasion 35% of total care hours must be deployed to a registered nurse. In addition to this, the categorisation of residents into self-caring, low, medium or high dependency

needs is too simplistic and does not take into account the advancing complex needs of the older resident population. The Rhys Hearn is also not equipped to guide safe-staffing estimations for residents who live with learning disabilities or mental health needs within care home settings. Finally, and more critically, the Rhys Hearn (1970) was constructed at a time when care focused on the biomedical needs of patients and did not take into account the importance of person-centred care in nursing practice (McCormack & McCance, 2016). For example, the tool does not consider important holistic needs that relate to communication, psychological, cultural, or cognitive needs. Succinctly, the Rhys Hearn has been a useful guide but its relevance in clinical practice is now limited.

National Services Scotland Care Home Staffing Model (2009)

In 2009, National Services Scotland published a staffing dependency tool that was applicable to the care home setting. The Care Home Staffing Model (CHSM) is an Excel-based tool which summarises the functional needs (or dependency) of individual residents based on the care home Indicator of Relative Need or ioRN measure. The CHSM tool also produces an aggregate ioRN score for the home by combining the ioRN information for every resident. This is then used to show how resident dependency and care hours for the home compare against an equivalent care home (National Services Scotland, 2009).

The care home staffing model (2009) is an alternative safe-staffing tool for care home nurses. The format is similar to Rhys Hearn (1970) but rather than selecting one broad category per resident, the National Services Scotland (2009) dependency questions offers nurses an opportunity to categorise a resident per dependency question. For example, a resident who is independently mobile and incontinent of urine would be categorised as D in the Rhys Hearn (1970). In contrast, the National Services Scotland (2009) enables nurses to score a resident as low dependency in relation to mobility and higher in relation to incontinence. While this tool is more complex than Rhys Hearn (1970) it is also robust.

A further strength of the National Services Scotland tool is that it also considers the mental health needs of residents by considering domains such as, 'aggression', 'co-operation' and 'risk'. The National Services Scotland dependency questions relate to the following 11 areas:

1. Eating
2. Transferring
3. Moving location
4. Toileting
5. Dressing
6. Incontinence urinary
7. Incontinence faecal
8. Verbal aggression
9. Co-operation
10. Risk
11. Immediate intervention

An example of one of the dependency questions is noted below:

Question 1 – Eating

This question relates to a person's ability to obtain appropriate nutrition. When eating a meal, the person:

- 1. Eats without help, prompting or assistance with or without using special/adapted utensils.**
- 2. Eats with some help to modify the texture or size of the food OR eats with encouragement, prompting or supervision.** i.e. needs food cut up, pureed, does not generally need physical help but needs someone present in order to perform the task, because the person lacks confidence/motivation.
- 3. Requires complete assistance OR receives nutrition by tube or infusion.** i.e. needs physical assistance from another person in bringing utensils to the mouth or is fed by gastrostomy, intravenously or by syringe.

Once all 11 questions have been answered the assessment is complete, the care home nurse will import the data into the excel spreadsheet (this can be accessed freely by registering here: <http://www.isdscotland.org/Health-Topics/Health-and-Social-Community-Care/Care-Homes/Staffing-Model/index.asp?Reg=1>). Once the data has been inputted, the care home staffing model will generate the recommended number of hours that are required to care for residents in the care home. It should be noted that the tool has been designed, tested and validated during the course of the study with greater than 3,300 care home residents in Scotland.

The care home staffing model has been a useful resource for guiding care homes about how many hours are required to care for residents within a care home setting. Importantly, the tool is personalised and the most applicable tool available to care homes within the UK today. There are some limitations of this tool which care home providers should be aware of. First, in relation to the 11 dependency questions, the options are quite generalised. For example in question one (above) on eating, a person who requires complete assistance will receive the same level of time as someone who receives food from a gastronomy tube. In practice this is likely not to be the case with gastronomy feeds usually being administered over a longer, unsupervised, period and some people living with dysphagia may require a greater amount of assistance. Another critique of the model is its use of labelling terminology. Words like 'aggression' and 'toileting' are considered demeaning for older people (Cousins et al, 2016). While this critique may seem pedantic, the language this Scottish governmental tool adopts is likely to reinforce the stigma associated with older people. Finally, similar to Rhys Hearn (1970), the categories still appear to support task-orientated approaches to care due to limited reference to holistic aspects of care which require care staff attention such as; communication, psychological or sleeping needs.

Discussion and Implications

There are many challenges facing healthcare organisations internationally. With consideration to the care home setting, there is often a paucity of critical investigation in relation to empirical research and expert commentary across a broad range of healthcare issues, particularly when compared to hospital settings (Cousins et al. 2016). Indeed, this is reflected with the topic of safe-staffing models as illustrated in this review. For a number of years care homes have been guided by staffing models that are not robust or naturally applicable to the health care setting. The clinical impact of this is simple; care homes may not be staffing their units appropriately.

On one hand, care home units may be under-staffing the units because available safe-staffing tools do not take account of the various complex conditions associated with an older patient population. Naturally, care home units which do not have adequate staffing are at higher risk of providing sub-optimal care to their residents. On the contrary, it is probable that some care home units may be overstaffing. While this may be positively associated with increased levels of care there are implications at a macro-level, vis-à-vis the model of care home funding in the UK which currently places a financial strain on independent care homes. This has been frequently highlighted by Laing Buisson, a leading source of healthcare market intelligence in the UK, in its annual reports on the care home market. In the most recent report the average cost of caring for a resident in the UK was around £30-£40 per person less than what current healthcare systems were funding (Laing Buisson, 2015).

With these scenarios in mind, it is a priority that care homes are supported to appropriately staff the care units because, as evidenced in the review, current models are not always fit for practice. The provision of an evidence-based, care-home applicable, safe-staffing tool would provide benefits at a micro and a macro-level. In other words, residents would be more likely to receive a higher quality of person-centred care and the care home itself would be able to provide this in a most cost-efficient way.

Conclusion

Safe-staffing is a pertinent policy issue across all healthcare settings within the UK today. There are a number of safe-staffing tools and initiatives that have been launched with differing levels of success. To date only one safe-staffing tool has been approved by NICE and there are a paucity of tools that are applicable to the care home setting. Despite being recommended by regulators of care homes in Northern Ireland, the Rhys Hearn (1970) is no longer reliable. While the Care Home Staffing Model (National Services Scotland, 2009) provides a more robust approach, it can be difficult to navigate and may not provide adequate coverage for the more complex needs of residents.

While there are limitations to these models, it is recommended that results from any safe-staffing tool are only appropriate to use as a guide and should always be combined with the expert clinical knowledge and judgement of the clinician(s) completing the assessment. In

other words, it is not safe practice to base care of any resident, or patient, solely on the calculations of a safe-staffing tool, no matter how robust.

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