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Why you should read this article:

* To improve your knowledge of the policies in England that provide guidance on safe staffing
* To understand how NHS acute care providers in England have tried to address the issue of safe staffing
* To recognise the factors that affect the implementation of safe staffing policies

Analysing the implementation and effects of safe staffing policies in acute hospitals

Jane Elisabeth Ball

Key points

* In response to the 2013 Francis report, the government ensured several policies were published to provide guidance on safe staffing in the NHS
* These safe staffing policies have affected the way trusts address the issue of staffing numbers on wards, for example how data are used to inform decisions and how safe staffing tools are used to change management decisions
* Directors of nursing found that reporting staffing levels to the trust board every six months was the most useful change in safe staffing policy
* The most significant barrier to safe staffing is the shortage of nurses to fill vacancies and to meet the required levels

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Abstract

Several high-profile inquiries and reports, including the Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry, by Sir Robert Francis QC, have identified that nurse staffing is an essentialfactor in patient safety and patient mortality rates. Since the Francis report, several policies and initiatives aimed at ensuring safe staffing in the NHS have been developed alongside guidance and evidence-based safe staffing tools, while the Care Quality Commission has been tasked with ensuring compliance with these policies. In 2015, the National Institute for Health Research (NIHR) Policy Research Programme commissioned research to examine the extent to which safe staffing policies have translated into practice locally in the NHS. This article summarises and examines the main findings of this research and suggests that, although policies have raised the profile of nurse staffing, nursing shortages have impeded their implementation.

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Background

In July 2013, Sir Robert Francis QC identified inadequate numbers of staff as being the likely reason for ‘so much of what goes wrong in our hospitals’ (Care Quality Commission 2013). In addition, his Independent Inquiry into Care Provided by Mid-Staffordshire NHS Foundation Trust (Francis 2010) and the Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry (Francis 2013) identified that understaffing was ‘a constant problem’, with many who worked in the trust’s emergency assessment unit regarding staffing levels there as inadequate. Francis (2010, 2013) concluded that decisions taken about nurse staffing at Mid-Staffordshire NHS Foundation Trust, such as the decision to merge surgical wards, did not adequately assess the risks to patients.

Alongside the publication of the Francis (2013) report, Sir Bruce Keogh’s high-profile independent review of hospital mortality rates identified workforce, including staffing levels and ratios, as one of the factors in the provision of high-quality care (Keogh 2013). His review recommended that trusts use an evidence-based approach to plan nurse staffing.

During research conducted in 2010, Ball et al (2014) collected data from 32 acute NHS hospital trusts and identified considerable variation in nurse staffing levels on acute hospital wards in England, with averages ranging from five to ten patients cared for per nurse during any given shift. Subsequent analysis by Aiken et al (2014) supported findings from earlier studies (Kane et al 2007, Shekelle 2013), which had identified that low staffing levels affect the quality and safety of care provided to patients. Furthermore, Aiken et al (2014) found that each increase of one patient in a nurse’s workload increased the likelihood of an inpatient dying within 30 days of admission by 7%.

Despite the significant body of research that establishes the link between nurse staffing levels and patient safety, before the Francis (2013) report there was little formal guidance and few recommendations on nurse staffing levels in the NHS. How decisions should be taken, what systems should be used to plan staffing and what levels of nurse staffing are required to minimise risk were all determined locally by individual hospitals without national guidance or policy.

The government’s response to the Francis (2013) report included several policies and initiatives aimed at ensuring safe staffing in the NHS (Department of Health 2013), and the National Institute for Health and Care Excellence (NICE) was asked to review the research evidence and develop safe staffing guidance for various clinical settings. At the same time, the National Quality Board (NQB) and chief nursing officer (CNO) published a report that outlined ten expectations of trusts in relation to addressing safe staffing, which included using evidence-based tools to inform nursing staffing capacity and trust boards reviewing staffing every six months (NQB 2013). To increase visibility and transparency, a policy to publish data on nurse staffing levels on each shift, on each ward and for each trust was announced by the secretary of state for health in parliament in November 2013 (Hansard 2013), while the CQC’s role to monitor and take action to ensure compliance with the safe staffing policies made the commitment to safe staffing explicit (CQC 2014).

The NICE (2014) guidance on safe staffing for nursing in adult inpatient wards in acute hospitals identified several organisational and managerial factors that are necessary to support safe nurse staffing. It also outlined a series of indicators or ‘nursing red-flag events’ to assess whether the level of nurse staffing is enough to meet patients’ needs safely and to warn of potentially insufficient staff numbers. The guidance states that a ratio of one nurse to eight patients during the day on an acute ward is associated with an increased risk of harm to patients, and should prompt monitoring of the nursing red-flag events and action to ensure staffing is adequate. The guidance was accompanied by an endorsement of the Safer Nursing Care Tool (SNCT) (NICE 2014).

Research study

A research study commissioned in 2015 by the National Institute for Health Research (NIHR) Policy Research Programme sought to examine the extent to which safe staffing policies have translated into practice locally in the NHS (Ball et al 2019). The research funder’s goal, as stated in the invitation to tender document, was ‘to understand how government’s response to Francis has translated into action on the frontline in the NHS’. At the time the study was commissioned, the policies related to ensuring nurse staffing levels were sufficient to provide care safely in NHS hospital wards focused on the following guidance:

* The NQB and CNO guidance of November 2013 (NBQ 2013).
* NICE (2014) guidance on safe staffing for nursing in adult inpatient wards in acute hospitals, including the use of the one-nurse-to-eight patients ratio as a warning level that should prompt review.
* NICE (2014) endorsement of the SNCT for planning nurse staffing levels in adult inpatient care.

This article summarises the main findings from Ball et al’s (2019) study, specifically how safe staffing policies have been implemented, and the national workforce changes and factors that have influenced their implementation. It also discusses some of the implications for practice of this research.

Aim and method of Ball et al’s (2019) study

The aim and method of Ball et al’s (2019) study are shown in Box 1.

Box 1. Aims and method of Ball et al’s (2019) study

Aim

To examine how safe staffing policies have been implemented by NHS trusts and to explore their effect. The central question the study sought to address was ‘What difference have safe staffing policies introduced after Francis made to the achievement of safe staffing in the NHS?’

Four research objectives were identified to answer this question:

* To describe how safe staffing policies had been implemented by trusts and how that varied
* To assess the associated costs of policy implementation at trust level
* To describe the effects and outcomes of safe staffing policy implementation
* To describe processes of policy implementation paying attention to contextual factors

Method

The method comprised four elements:

* Policy mapping: a review of policies and the healthcare service context in which they have been developed and implemented
* National survey: an online, post and telephone survey of all directors of nursing in general acute NHS trusts in England was undertaken from March to April 2017 to discover what changes to nurse staffing decision making processes had been made and to gauge views on this. Of those contacted, 91 of the 148 (61%) directors of nursing responded
* Collection of national data: analysis of existing national datasets including NHS safety thermometer data and information from the NHS staff survey to explore changes in staffing over time in acute trusts and to identify shifts between acute trusts and other sectors
* Analysis of case studies: an in-depth qualitative study using a realist-informed evaluation approach of implementation, combined with a description of policy implementation and assessment of costs, was undertaken in four acute NHS trusts. The realist-informed evaluation approach aimed to consider the importance of context in understanding how safe staffing policy implementation has worked, for whom, and in what circumstances

Findings of Ball et al’s (2019) study

This section details the main findings from Ball et al’s (2019) study, in relation to implementation of safe staffing policies at trust level, national workforce changes, costs and factors influencing implementation.

Implementation of safe staffing policies at trust level

It was found that safe staffing policy implementation in the four acute trusts that took part in the case studies resulted in:

* Changes in the language used to refer to staffing.
* Greater visibility of safe staffing in the organisations.
* Use of data to support investment in nurse staffing.
* Use of data to provide rationale for challenging decisions.
* Using policy as a driver for accelerated action around safe staffing.
* Safe staffing tools changing the nature of management practice.
* Policies enabling workforce redesign.

In the national survey of all directors of nursing of acute trusts, 86% of trusts reported nurse staffing capacity and capability were reviewed at least six-monthly in line with NQB (2013) guidance, while the NICE-endorsed SNCT (NICE 2014) or a different safe staffing tool was used to set staffing levels by almost all trusts surveyed. The four trusts that took part in the case studies conducted daily site-wide multidisciplinary staffing reviews and 24-hour escalation at matron level or higher. The directors of nursing regarded new approaches to staff planning, rostering and raising awareness at board level as the most helpful changes. Figure 1 demonstrates the changes that the directors of nursing found most helpful.

Figure 1. Percentage of directors of nursing reporting policies as ‘helpful’ or ‘very helpful’ in achieving safe staffing

National workforce changes

Following a period of no growth between 2009 and 2013, the full-time equivalent (FTE) number of nursing staff employed in the NHS acute sector in England from 2013 to 2017 increased by 10% for nurses and almost 30% for support staff (Figure 2). However, increases in nurse hours per admission were lower than the growth of FTE nursing staff (Figure 3). Furthermore, growth in the nursing workforce was not uniformly distributed across the NHS in England and increases in acute hospital services, where policy to increase the workforce has been focused, were not seen in community, learning disability and maternity services (Ball et al 2019).

In the national survey, directors of nursing were asked ‘How often has the number of patients per nurse providing care on general acute wards during the day exceeded the 1:8 ratio in the past 12 months?’ Around 25% of directors reported the number of patients per nurse exceeded the 1:8 ratio, for example because of lower staffing levels, on at least 65% of shifts over the past 12 months.

Figure 2. Relative change in numbers of nurses and support staff (September 2009-December 2017)

Figure 3. Weekly full-time equivalent nurses, admissions and estimated nurse hours per admission (September 2009-February 2017)

Data from the survey and case studies showed that growth in nurse staffing levels was limited by trusts’ inability to fill posts. The survey found that the average nurse vacancy rate in 2017 was 10% and, at shift level, trusts found it challenging to fill planned nurse hours, as indicated through ‘fill-rate’ data.

Because of the challenges in increasing nurse staffing levels, it is hard to estimate the benefits of staffing changes. However, results from large scale studies using epidemiological methods can be used to illustrate that even small changes in staffing can have great benefits at a population level. For example, there was a 2.5% increase in nurse hours per patient per day from 2013 to 2015 in one of the case-study trusts, which equates to around 11 hours per patient per day. As part of a study in that same trust, Griffiths et al (2019) estimated that for every additional hour of nurse time per patient per day over the first five days of hospital stay, risk of death decreased by around 3%, which is a small reduction in the overall mortality rate of 4.1%. There was also a small decrease in mean length of stay associated with higher staffing.

Using the economic models developed to estimate the consequences of staffing change in Griffiths et al’s (2019) study, Griffiths (2020) estimated that even the small staffing increase observed from 2013 to 2015 would be associated with between 12 and 14 fewer deaths per year as well as 1,170 days of patient stay averted. This is a modest but important benefit which, if extrapolated to a national scale, would equate to around 1,760 fewer deaths per year.

Costs

Ball et al (2019) estimated that nurse staff costs for NHS acute care in England increased by 15% between 2012 and 2017, nurse costs increased by 12% and support staff costs increased by 30%. The roles of existing staff expanded to enable safe staffing policy to be implemented, and a few roles were newly developed to implement safe staffing policy.

Factors influencing implementation

Analysis of the qualitative data from the case studies suggested factors that influence implementation of safe staffing policies included: clarity of the safe staffing policy message; the degree of learning and innovation; use of tools and technologies; and the credibility and reliability of data. Case-study trusts had adopted strategies to cope with and mitigate against staffing shortfalls, but the senior nurses who took part in the case studies reported there were sometimes imbalances in staffing relative to demand, which led to periods when wards did not operate with safe nurse staffing levels.

The realist-informed analysis of the case-study data suggested that policy implementation worked best when there was a ‘whole-systems’ approach, with optimal collaboration across organisational strategies and data systems related to safe staffing and involving for example workforce, finance, quality, safety and professional practice. Clearly defined leadership, a shared sense of accountability, consideration of wider workforce issues such as recruitment and retention, engagement with external stakeholders and a high degree of goodwill were all associated with successful implementation of the policies. A lack of transparency, equity around how staffing was distributed between wards and rationale for redeployment or changing nursing numbers all risked the goodwill necessary for success.

Discussion

The findings suggest that safe staffing policies have affected the decisions taken by trust boards and directors of nursing. The safe staffing policies developed following the Francis (2013) report have led to a change in thinking. For example, directors of nursing more often considered that board-level awareness of safe staffing was important, and this was accompanied by greater trust investment in nursing. Meanwhile, those who took part in the survey regarded accountability for providing safe staffing to be part of the culture at every level of their organisation. The findings suggest that safe staffing policies have acted as a catalyst for changes in the processes, technologies and systems that support safe staffing as an outcome. There has also been a change in the amount of resources being used to support safe staffing in adult acute hospitals, which is not apparent in other specialties or settings.

At trust level, the findings suggest that successful implementation of safe staffing policies, along with improvement in decision-making and planning to avoid staffing shortfalls, depend on several contextual conditions, outlined in Box 2. Safe staffing policies following the Francis (2013) report outlined a vision that appears to have been embedded in trusts’ actions and attitudes, despite competing priorities and a challenging labour market. However, achieving safe staffing levels, as opposed to achieving changes in how staffing is planned and monitored, will only be possible if restrictions on the wider workforce and resources can be overcome.

Box 2. Contextual conditions that affect implementation of safe staffing policies

Successful implementation of a safe staffing policy depends on:

Value, leadership, prioritisation

* Attaching value to professional judgement and using it to make staffing decisions
* Having clear, transparent and equitable leadership regarding safe staffing in the trust
* Giving organisational given to quality and safety, and balancing against financial bottom-line

Use of systems, technology and data

* Having more data-informed discussions to support decision-making about safe staffing
* Integrating data around a ‘whole’ safe staffing system
* Increasing the activity across different stakeholder groups around safe staffing technologies to mitigate the risks of fragmented infrastructure
* Making available training, ongoing support and resources that enable staff to make best use of available technologies designed to improve the planning, reviewing and reporting of nurse staffing

Attending to organisational context

* Attending to wider staffing issues, for example recruitment and retention, and workforce redesign
* Implementing new ways to overcome challenges, for example through the use of incentives

Goodwill and equity

* Encouraging cross-organisational goodwill and collegiality around nurse staffing
* Achieving equitable decision-making and resourcing across the trust to foster ongoing goodwill and commitment from staff

The Francis (2013) report was published after a period in which staffing levels had stagnated. Innovations associated with post-Francis policies, including the use of evidence-based tools such as the SNCT, identified a need to increase staffing levels in many trusts. While the post-Francis policies have been perceived by directors of nursing as helpful in providing leverage and legitimacy for local practices, they are viewed less positively for national reporting of performance metrics, such as care hours per patient per day. However, the supply of nurse staffing did not match the increase in demand, which has been driven by increasing patient numbers, but also by clearer identification of the need to increase nurse staffing levels to provide care safely. As a result, staffing levels on some wards are still falling below the level identified as required.

There is evidence that there has been a change in skill mix, since support staff numbers have increased at a faster rate than nurses. In the short term, workforce leads have suggested this as a potential solution to the imbalances described in the case studies, enabling sufficient total numbers of nursing staff to be achieved despite labour market constraints. However, research related to skill mix suggests that substituting nurses with support staff, who receive less training, is unlikely to represent an effective solution because of increased risks to patients (Aiken et al 2016).

The most significant barrier to safe staffing is the shortage of nurses to fill vacancies and to meet the levels assessed as required. To improve the labour market conditions in which trusts operate, and to fully implement safe staffing policies, those with responsibility for the management of healthcare services nationally must consider what has been going wrong and how practice needs to change so that nursing workforce planning is effective.

The success of much healthcare service policy, particularly safe staffing, depends on having a large enough workforce relative to planned services to ensure that patients receive the nursing care they require. The findings suggest that the implications of healthcare service policies and new models of care provision need to be factored into workforce plans. For safe staffing policy to be implemented successfully, workforce requirements must be determined based on an assessment of a population’s need for healthcare services that has detailed insight into the planned provision of care within and outside of the NHS. Healthcare providers must also be fully aware of workforce supply factors, such as activity rates, retirement ages, wastage and turnover.

Financial consideration has been introduced into safe staffing policies only after their development, primarily as an assessment of the investment required to bring nurse staffing up to safe levels based on the guidance and policies drawn up after the Francis (2013) report.

In other countries experiencing the same challenges of achieving safe nurse staffing levels in a tight labour market and with fiscal pressures, alternative approaches have been taken with positive results. For example, the Department of Health Ireland (2018) developed a framework for safe nurse staffing and skill mix as a result of work led by their CNO and team and supported at ministerial level. In contrast to the guidance and initiatives launched by the UK government in response to the Francis (2013) report, the framework adopted by the Department of Health Ireland (2018) includes a description of the resources required to enable its implementation nationally that considers costs and benefits and makes an ‘invest to save’ model explicit: ‘The reference to “save” in this context is the widest definition that includes efficiency and improvement savings, for example safer better outcomes for patients, which is the fundamental focus of the framework. This is a model in which funding is provided at the outset to support initial investment upon which to then extract savings/efficiencies at a later stage as wards are stabilised.’

Limitations

One of the limitations of Ball et al’s (2019) study was the lack of publicly available data on nurse staffing levels in the NHS in England, which meant the researchers relied on crude proxy measures such as the number of nurses per bed.

The use of self-reporting from directors of nursing is open to bias in that they cannot offer an entirely objective perspective on nurse safe staffing levels. However, they are the most senior nurses in the country and hold positions of executive and clinical responsibility in the largest organisations providing healthcare, so their views offer expert insight in understanding how polices on safe nurse staffing have been implemented.

Conclusion

While trusts have implemented guidelines and policies on safe staffing, their ability to provide staff according to the levels required has been limited by external pressures. Several of the necessary checks and balances recommended in the Francis (2013) report to safeguard safe staffing have not been instigated, meaning that the changes that have been made only partially meet the objectives of improving nurse staffing levels in NHS acute hospitals and reducing the risk of avoidable harm to patients.

Policies have provided leverage and raised the profile of nursing workforce issues at board level, which has contributed to a willingness to invest in nurse numbers. However, a lack of assessment of the likely scale of investment and human resources required nationally to achieve safe staffing has led to financial considerations becoming a barrier to achieving the policy vision.

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