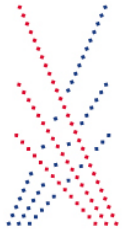

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Resuscitating emergency nurse retention:
Redesigning a relational and proactive skills mix

Acute shortages of registered nurses mean it is imperative to examine innovations in future workforce planning. Retention of current nurses is a priority in the 2019 NHS interim plan to address this staffing crisis. Drawing on observations, semi-structured interviews, focus groups and documentary analysis of a new accident and emergency ward in a rural National Health Service hospital in England, we seek to contribute to existing HRM theory on workforce skills mix redesign. Specifically, we use a Work Design Questionnaire (Morgeson & Humphrey, 2006) and Expanded Nursing Stress Scale (ENSS) (French *et al*., 2000) to explore the experiences of nurses in their first year and their intentions to quit. Theoretically, we discuss relational and proactive perspectives and the practical implications of focusing on bedside nursing and new ward facilities when strategic options for emergency health services would be to treat more patients in the community.

Keywords: work design; skills mix; nursing; retention; accident and emergency

Introduction

The *NHS Long Term Plan* (2019) has placed considerable emphasis on the need to ensure that healthcare staff are optimising their skills, expertise, and use of technology. This is also further reflected in academic work where scholars call for staffing levels to be calculated more accurately and appropriate skill-mixes to be managed to match patients' needs in the context of NHS reforms (e.g., Hurst, 2017). This context appears particularly interesting from a research perspective due to the UK's changing demographic profile, increasing healthcare costs, large public debts and other legacies of an economic downturn (see Rumbold *et al*., 2015). Additionally, the impact of robots substituting for labour in caring for older people (The Economist, 2019) and patient care more broadly is another consideration in future workforce planning.

The High Quality Care for All (2008) placed considerable emphasis on quality health and care. This influential publication changed the landscape of health care by prioritising patients' rather than systems perspectives. Quality of care has three pillars in England (see NHS, 2015). The first pillar is S*afety* which entails ensuring a safe, clean, harmless and error free environment. The second pillar is e*ffectiveness* which means providing care that works as effectively as possible. Third, e*xperience* encompasses providing care with compassion, dignity, and respect. This third dimension of the quality of care puts the human back into the heart of providing care for patients and service users.

Ultimately, people are gauging the quality of the services provided. Given that the NHS and healthcare industry in general, and acute wards in particular, are labour-intensive, it is the task of management to find the most effective mix of staff with available resources. In doing so, local priorities and staff satisfaction need to be considered. This is in line with the promise made by the NHS (2019) in its most recent *Long Term Plan* to make the NHS 'a better place to work, so more staff stay in the NHS and feel able to make better use of their skills and experience for patients'.

The aim of this study is to evaluate a skills mix redesign project at Airedale Hospital NHS Trust, a rural general hospital opened in 1970 that serves a wide region including the Yorkshire Dales. The term ''skill mix'' is typically used to describe the mix of posts, grades or occupations in an organisation.

Context

The skills mix redesign project can be seen in the light of Darzi's (2018) review. It demonstrates that owing to the changing nature of the disease burden, high quality care is a constantly moving target. The NHS has endured the most austere decade in history with decreasing funding for social services resulting in fewer people receiving appropriate support. Operating under a strained system has become evident with increases in patients left in corridors, cancelled operations, and substantial financial deficits. Staffing gaps are also another indicator of stressed staff with one in nine nursing posts vacant (Molloy *et al*., 2017). These staffing shortages raise safety concerns as they clearly impact on the quality of care for patients and service users. A recent survey of nurses, doctors and managers reported in *The Guardian* (2018) shows that 80% have raised concerns about insufficient staff on duty to provide patients with safe and quality care. Of these, more than 59% said no action was taken, despite their unease being voiced. It is in this environment of staff shortages that the investigated hospital also operates. Given these issues, and in the context of Brexit, it is assumed that evaluating job roles to identify tasks which can be done by other staff will enrich the role and satisfaction levels of trained staff by optimising the skills mix.

Existing evidence on skills mix in healthcare industry is, however, limited. Indeed, most of the research in the area is descriptive and methodologically weak. In addition, as Duchan and Dal Poz (2002) claim, it is not possible to prescribe in detail a universal and ideal mix of health personnel due to their very context-specific nature aligned with the needs of specific patient populations and organisational contexts.

Given the context outlined above, our study reviews the existing job roles and structures within Airedale Hospital Trust specifically. The Trust's aim is to create new ward roles and

skill mixes that ease the burden on registered nurses and doctors. Registered nurses not only have to cope with patient care demands but they are also responsible for the teaching and learning of student nurses. Whilst the new skills-mix project will ultimately benefit the Trust, in the short-term this is onerous for senior staff. Some wards will have to be managed by non-nursing staff to match different types of illnesses. The findings from our research will be extended to further research on other wards, e.g. for medically optimised patients for whom the Hospital has provided everything medically possible and who require a distinct workforce skill mix.

It is worth noting the adverse effects arising from ongoing shortages of Registered Nurses by filling vacancies with less qualified staff, such as nursing support workers (Duffield *et al*., 2014a, b). This approach dilutes the skill mix of a ward resulting in negative outcomes for patients (Needleman *et al*., 2001), reducing nurses' job satisfaction and increasing their intention to quit (Duffield *et al*., 2011a, b). However, studies have shown that the use of non-registered nurses as a way of increasing ward staffing can positively impact patients, nurses and the work environment (Duffield *et al*., 2016). In their study on hospital nursing skills mixes, Aiken *et al*. (2017) found that high proportions of professional nurses for bedside support result in better nurse satisfaction and better patient outcomes. They concluded that 'substituting one nurse assistant for a professional nurse for every 25 patients is associated with a 21% increase in the odds of dying' (*ibid*, p. 559), however, the study was a snapshot. By comparison, our study will map changes regularly over 12 months.

In this research we will, therefore, look at where the burden can be spread, whilst adhering to principles of good clinical and corporate governance. The value of national guidance versus bespoke local solutions provides both challenges and opportunities and this research examines the extent to which creating new ideas about optimal working can be challenged within current NHS Guidance. This should ultimately contribute to improving quality of care for patients. Indeed, there is a pressing need for efficiency and cost savings while ensuring quality provision of the services offered by NHS hospitals and integrating appropriate technology. The NHS is a public funded organisation with 80% funding from the public through taxes. Despite this funding, the NHS estimates that there is a £22bn funding gap, in addition to the Health Service needing to make efficiency savings in the range of 2-3% pa until 2020/21 (NHS England, 2016). Staffing accounts for 70% of spending which is mainly on clinical professionals who are educated to degree level and above (ONS, 2016). In this context, labour productivity and meeting stakeholder expectations are of considerable importance.

Updating work design theory in a nursing emergency

The NHS interim plan (2019, p. 20) states that 'improving retention of our existing nursing workforce' is a top priority. Yet 'emergency care systems are supply-rich, resource-poor and roughly 20 years behind where we need to be to meet the requirements of the public' (Mason, 2018).

In a case study evaluation of redesigning workforce skills mix in a new acute hospital ward, we reflect on work co-design processes to enhance staff retention and address workforce planning for more community-based services. We ask: how is work design theory shifting to accommodate employees in professional occupations in uncertain and dynamic organisations in the 21st century? Specifically, how can we enhance the retention of accident and emergency nurses and their sense of being valued to create an appropriate skill mix.

The main contribution of this study is to explore relational and proactive perspectives of work design in a licensed to practise profession and dynamic life-saving context. The semi-structured interviews are based on Grant & Parker's (2009) relational work design framework (see Figure 1). This considers contingencies such as team diversity, incentives, support and trust and the nature of tasks and how these influence individuals and outcomes through various relational and emotional mechanisms embedded within a particular social context. Grant & Parker (2009) suggested that studies of jobs like nursing that demand intensive 'customer' contact and high levels of empathy are interesting to explore. They (p. 330) comment that 'nurses … often feel that their efforts to help patients … are thwarted by bureaucratic systems, organizational policies, and heavy workloads while receiving little support'.

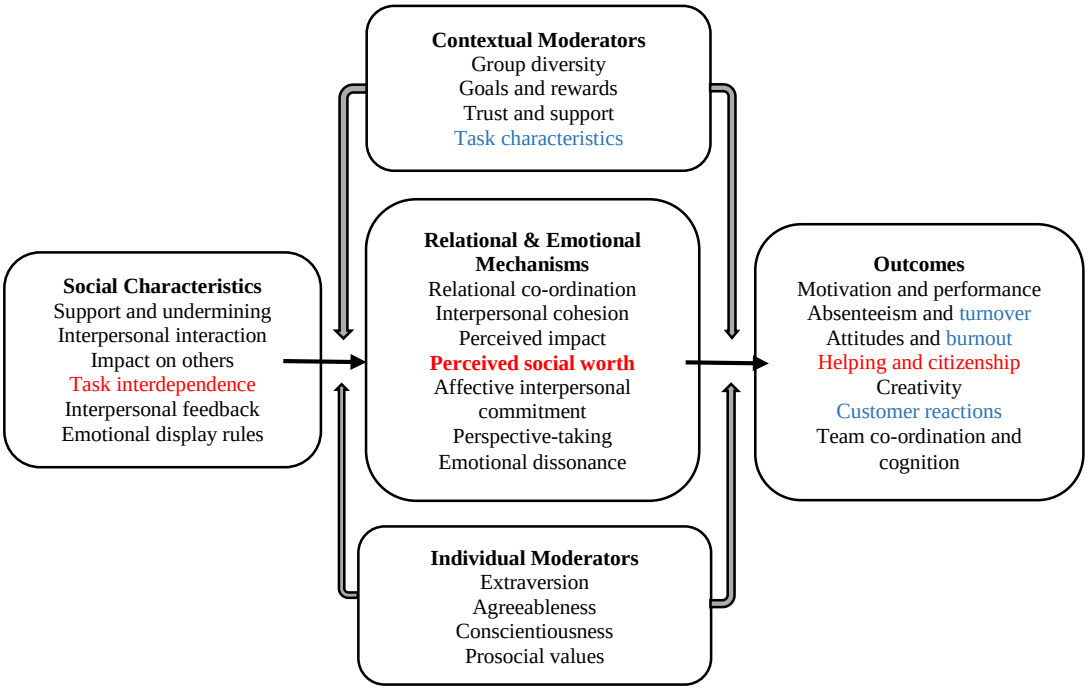

Figure 1. Relational work design (Grant & Parker, 2009, p. 369)

Research design

We are interested in providing lessons from implementing health workforce changes (Nancarrow *et al*., 2013) with a shift in HR policies and practices from a focus on staff mix to skills mix (Dubois & Singh, 2009) in supporting acute ward staff (Coad *et al*., 2002) and providing practical tools to determine skills mixes (Buchan & O'May, 2000). We draw on studies of numerical flexibility for staffing nurses on acute hospital wards (Adams & Bond, 2003a, b), the duration of their shifts (Baillie & Thomas, 2019), issues of nursing shortages and temporary nurses (Massey *et al*., 2009) and the inclusion of staff who are not members of regulated nursing professions (Duffield *et al*., 2018; Roche et al., 2016). While the policy context is about balancing high quality care and optimising staffing skills mix and satisfaction, our project team is not qualified to research nurse staffing and the consequences for patient care (Griffiths *et al*., 2016).

The project will also assess evaluation literature and its utility for assessing the English healthcare work force (Kings Fund, 1996) and NHS workforce planning (Addicot *et al*., 2015). This includes logic models (Allark *et al*., 2013; W.K. Kellogg Foundation, 2004), the realist evaluation cycle (Pawson *et al*., 1997; Pawson & Tilley, 2001), qualitative comparative analysis (Rihoux & Ragin, 2009) with a consideration of contingencies (Ovretveit *et al*., 2018), including leadership (Ovretveit, 2010).

We will supplement the focus on a specific workplace in Morgeson & Humphrey's (2006) Work Design Questionnaire with discussions about virtual, community-based provision and both self-care for workers and their service users that can affect the A&E workforce skill mix in future.

Building on Pawson and Tilley's (1997) proposals for realistic evaluation (Figure 2), we assume that the workforce redesign project will be considered to have achieved desired outcomes only if appropriate mechanisms are introduced to groups in the appropriate contexts. Hence, our focus is placed on these three concepts (outcomes, mechanisms, contexts) to inform our overall rationalist theoretical contributions. Given that the choice of method has to be carefully tailored to the exact form of hypothesis developed earlier in the evaluation cycle, ethnographic methods are being used to collaborate with the study's participants by exploring their experiences in natural settings and in a systematic manner (Brewer, 2000). Such a research design should further enable us to establish the gap between the socially constructed reality and rhetoric of job-role structures and respondents' actual lived experiences.

Research sample

The study is conducted at the Acute Assessment Unit (AAU) at Airedale Hospital in Keighley, West Yorkshire in the UK. Participants in the research study include: (a) bands 1 and 2 healthcare support; (b) bands 3 and 4 trainee nursing associates; (c) therapists and (d) senior staffing in wards. There are around 100 full-time staff on the ward and six further employees who offer therapy-based care/support. All employees will participate in the research.

Data collection, coding and analysis

Data will be collected monthly through a mixed methods approach including observations, interviews and focus groups as outlined in Table 1. Six focus groups of nursing staff at various levels will be conducted. The aim will be identifying roles that can be done by other staff rather than nurses and doctors. Semi-structured single and dyadic interviews (Eisikovits & Koren, 2010) will be conducted with health care workers in various bands and senior staffing in order to clarify further nursing job roles and structure, which is what the NHS structure and policy dictate for nurses' roles depending on experience and bands. Furthermore, around eight sets of full day/night observations at various times will be conducted. Researchers will act as overt observers.

Development plan

Our next step is to design a comprehensive and systematic evaluation methodology. The NHS recently published an interim workforce planning document (July 2019) for consultation. We would welcome the opportunity to conceptualise and discuss the project findings and their wider impact with others in the BAM HR Track – before we report to NHS England in October.

Table 1. Research sample and methods

Sample Population	Data Collection Method	Number of Sets
Focus Groups (30 minutes - 1 hour)		
Senior nurses/ward managers	Focus group	One set with at least three senior nurses/ward managers
Registered nurses	Focus group	Three sets with at least four registered nurses from various bands
Health care assistants (HCAs)	Focus group	One set with at least four HCAs
Therapists	Focus group	One
One-to-one and/or two-to-one interviews (30 minutes – 1 hour)		
Participants	**Data collection method**	**Number of interviewees**
Bands 1 and 2 healthcare support	Semi-structured Interviews	10 participants
Bands 3 and 4 trainee nursing associates	Semi-structured interviews	10 participants
Senior staffing in wards	Semi-structured interviews	10 participants
Registered nurses	Semi-structured interviews	10 participants
Ward managers	Semi-structured interviews	5 participants
Observation (full day/night)		
All ward members on call	Observation	Around 8 sets

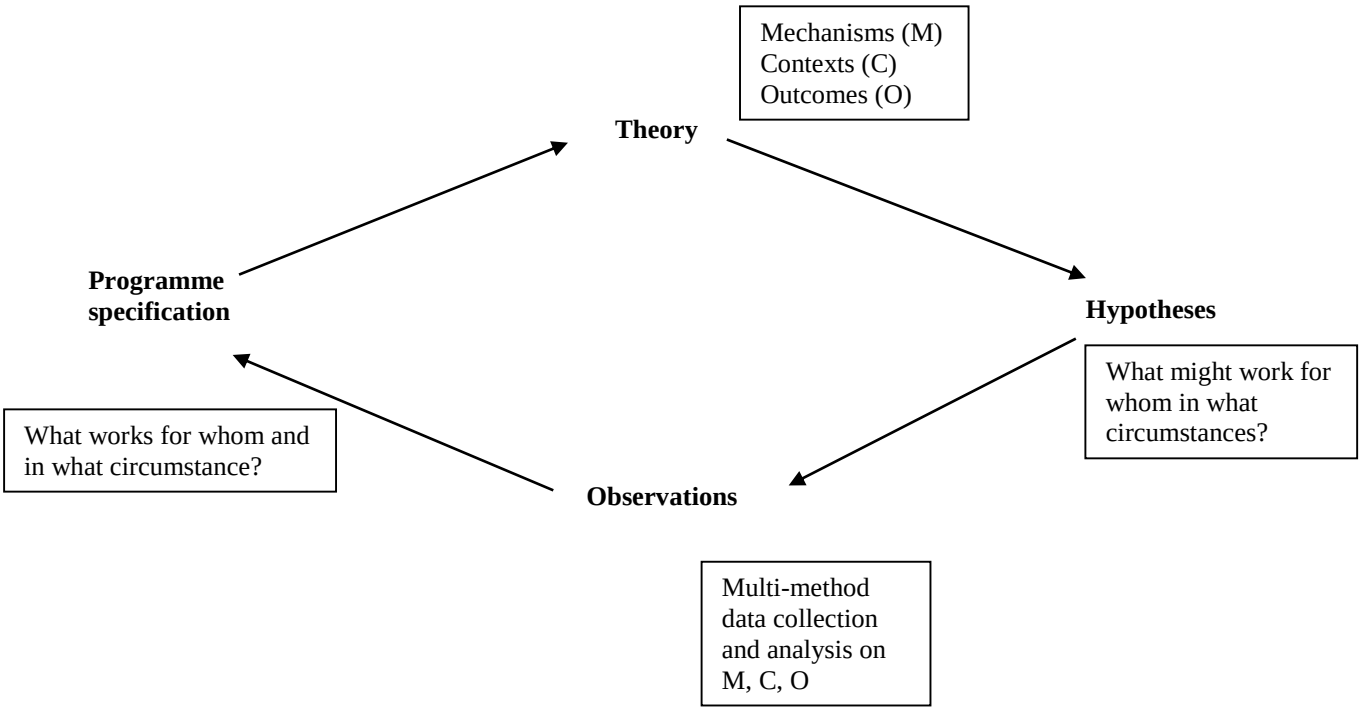

Figure 2. The realist evaluation cycle (Pawson and Tilley, 1997, p. 85)

Preliminary findings

Based on initial discussions with senior nurse managers, in the acute ward setting, satisfaction and a personal sense of social worth are gained from informal job and spatial design derived from close-knit peer support, task interdependence and helping behaviours. However, the task characteristics of fast-paced assessment of a patient's medical complaint undermine opportunities for interpersonal interaction with patients and their social care. This results in nurse burnout, turnover and their sense of being undervalued in helping others.

Preliminary feedback based on questions based on the Expanded Nursing Stress Scale (ENSS) (French *et al*., 2000) suggest that nurses on the acute ward do not have enough time to support patients or their families emotionally because of paperwork overload. The creation of a Butterfly Project Co-ordinator who concentrates on supporting dementia patients, patient dignity and families allows for one non-nursing member of the team to dedicate time to personalised non-clinical support.

Our case highlights workforce shortages and staff retention challenges in a safety critical context to personalise employee working conditions. Just as new emergency nurses are frustrated at only having time to treat the complaint rather than the patient, directors of workforce need to understand individual employee needs that are socially embedded in uncertain and dynamic contexts. There needs to be an appreciation of skills mix and personal preferences, not merely nurse to patient ratios. To enhance the attractiveness of nursing as a career, opportunities need to be communicated for personal and professional growth that encompasses nursing associate and nurse practitioner roles. We need further research to understand proactive work design such as self-determined flexible rostering.

Conclusion

In conclusion, Grant and Ashford (2008, p. 358) expressed concern that: 'a growing number of employees may have jobs that are too big for their time and energy levels'. If emergency hospital nursing is to be redesigned with ambulatory care, frailty and mental health teams encouraging patients to be treated in the community, future workforce planning needs to see beyond the retention of bedside A&E nurses with much wider perspectives on work design. This needs to allow registered nurses to negotiate "i-deals", personalised employment terms, (Rousseau *et al*., 2006) and introduce changes in the nature of tasks and processes in unpredictable contexts (Griffin *et al*., 2007). In examining how work is designed from relational and proactive perspectives, we aim to extend debate beyond workforce retention to incorporate broader grand challenges and workforce crises.

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