Retention of NHS nurses:
A scoping review

Prof Jane Ball & Dr Ourega-Zoé Ejebu

Heath Sciences, University of Southampton

First produced May 2021

1. Introduction

Increasing nursing numbers: retention is key part of the solution

There is an ongoing national shortage of registered nurses (RNs). Over the past decade, supply has not kept pace with demand. From 2010/11 to 2017/18, the number of full-time equivalent (FTE) nurses in the NHS barely changed, even as NHS hospital and community sector activity levels increased by 26% (1). In 2017, the numbers of nurses leaving the profession exceeded the number joining by 27% heralded worsening shortages (2), and a parliamentary Health Committee inquiry was launched into 'Nursing Shortages' (3). Since 2017/18, nurse numbers have increased, with the number of FTE nurses and health visitors in the NHS rising by 4.8% in the year to June 2020. At the start of 2020, there were nearly 40,000 nursing vacancies in the NHS, representing 11% of posts. The NHS Long Term Plan has set a goal of reducing the nursing vacancy rate to 5% by 2028.

In the first major health and social care workforce plan for 25 years, Health Education England (the body responsible for workforce and staffing) stated that "*the most cost-effective way to ensure the health and care system has the staff we need is to keep the people we already employ*"p7 (4).

Influencing nurses' decisions to stay or go – we can't afford not to

In the current labour market, the NHS can ill-afford to lose skilled registered nurses from the NHS, or from the profession altogether. Staff turnover also represents a significant financial burden (5-7). One source suggests that average turnover costs may be upwards of three-quarters of the salary of the nurse that left (8). It is therefore a national priority to better understand the factors that influence nurses' decisions about their jobs, in order to help identify opportunities to influence choices made in favour of continuing in nursing, and staying in work as a nurse in the NHS.

To design effective retention policies for nurses, we need to pay particular attention to the organisational (i.e. work-related) factors influencing nurses' decisions to stay in the profession and gauge their relative importance for different subgroups of nurses. These organisational factors can be used by employers (and policy makers) to improve the attractiveness of nursing as profession and the NHS as an employer. Together they can inform retention interventions for nurses in the UK.

2. Aim

The aim of this review is to identify and assimilate key findings from policy reports and background literature on nurse retention, in order to highlight emergent factors/themes. The work builds on a review of academic research on 'Why Nurses Stay?', conducted by Charlene Pressley et al in 2021. The overarching goal is two-fold:

i)   To help determine further work needed to identify strategies to improve nurse retention in the NHS.

ii)   Identify gaps in knowledge regarding the range of factors that impact on nurses' decisions to stay or leave their jobs or nursing.

The primary focus of this review is on the grey literature. However, to place this in context in terms of emergent themes/frameworks, we situate the scoping review of grey literature in an overview of the main themes emerging from the academic research literature – to try and arrive at an overview that pulls all knowledge together, regardless of source.

3. Approach

The scoping review focusses on RNs in any field or setting. The two main research questions the review seeks to address:

1. What factors are associated with retention of nurses?
2. What do we know about the efficacy of different strategies and initiatives aimed at improving retention of nurses?

Retention can be looked at in terms of actual mobility or intention to move, in terms of leaving (or staying) in a current job, current employer, sector, profession or paid employment. A variety of measures can thus be used to capture levels of job movement or attrition, including: turnover rates (e.g. rate of leavers per annum; or leavers as % of all staff), workforce stability indices and exit interview data.

The grey literature search is placed in context of research which has been identified by our scoping review of literature on nurse retention, in order to help arrive at a framework for understanding retention.

3.1 Grey literature – identifying evidence outside of academic journals

Some of the reports and grey literature that might provide insight into factors that employers can modify to improve retention may sit in wider literature. For instance, the use of excellence frameworks and their impact on organisational benefits in terms of improvements in nurse job satisfaction, and associated changes, including staff retention. Hence this initial scoping review looks outside academic research, and will include evidence where turnover/retention/job satisfaction are not necessarily the primary interest, but are none the less reported (e.g. related to health care quality improvement initiatives).

1. Identify organisations and bodies that have responsibility or interest in nursing workforce or report on factors that potentially improve retention, such as:
    - Department of Health and NHS (NHS England, NHS Improvement)
    - Nursing associations & trade unions nationally (Royal College of Nursing - RCN, Unison)
    - Nursing associations internationally (International Council of Nurses -ICN)
    - Professional bodies (RCN, American Nurses Association - ANA)
    - Regulatory bodies (Nursing and Midwifery Council - NMC)
    - Workforce planning organisations (Heath Education England)
    - Health policy think tanks (King's Fund, Nuffield, Health Foundation)
    - Nursing excellence accrediting bodies (American Nurses Credentialing Center -ANCC)
    - Pay review body (annual reports)
    - Health Select committees on nursing workforce reports
    - Migration advisory committee

2. Web based searches on nurse job change, using terms such as nurse retention, why nurses stay, why nurses leave, nurse mobility. Including searching the National Institute for Health and Care Excellence NICE/NHS evidence base.

3. Topic focussed on factors that previous reviews have identified as having an impact on nurse decisions and mobility:
   - Jos satisfaction & employee engagement
   - Career & development opportunities: career paths, Continuing Professional Development (CPD), opportunities for new experience, rotation schemes, early careers of nurses (REPAIR project),
   - Recognition and reward (remuneration, rewards, financial and non-financial incentives)
   - Work-life balance (working hours, childcare provision, support, shift patterns)
   - Clinical practice environment factors e.g.
     o Participation in hospital affairs, Shared governance
     o Evidence based practice & research rich cultures
     o Teams and relationships
     o Clinical governance & safety
     o Adequate resources/staffing
     o Visible leadership and good management
     o Opportunity to use skills & expertise

3.2 Academic scoping review: background search on nurse retention

A scoping review of academic papers was conducted to identify organisational factors influencing nurse's decision to stay (rather than leave), noting UK based research in particular, and examining wider management, human resources and economic perspectives, as well as health service research and nursing workforce literature.

CINHAL, Medline and Scopus were used to undertake the search. Only papers with an English abstract were included but the search was unrestricted in terms of publication date and methodology; both qualitative and quantitative studies were included. Papers were included if they reported on the organisational (i.e. work-related) factors that influence nurses to stay in their profession.

4. Results

The initial scoping review identified 24 reports/papers in the grey literature, and over 50 papers from academic literature. Table 1 presents a summary of key information extracted from the grey literature, before a thematic overview of findings is presented.

4.1 Summary of grey literature

Table 1: Key points related to nurse retention extracted from reports/blogs/policy documents

2008	Department of Health (2008), *What matters to staff in the NHS?* Report by ISPSO-MORI.
	Conducted by Ipsos MORI for the Department of Health (DoH), sought to identify the major emotional and behaviour drivers contributing to staff engagement and motivation to provide high quality patient care. NHS organisations, trades unions, the Healthcare Commission and Academy of Medical Royal Colleges involved; interviews with staff from 50 NHS Trusts & GP practices It informed the "Next Stage Review" and the development of the NHS Constitution. Staff commitment, engagement and productivity were strongly linked to four themes: • The support I need to do a good job • A worthwhile job with the chance to develop • The opportunity to improve the way we work

	• The resources to deliver quality care for patients
2010	WHO (2010) Global policy recommendations: increasing access to health workers in remote and rural areas through Increasing access to health workers in remote and rural areas through improved retention.
	Evidence based guidelines on retention - a practical tool designed for all countries to use, based on year-long assessment of what works that involved wide range of experts from all regions of the world. Intervention categorised into 4 modes: A. EDUCATION • targeted admission policies to attract to under-served areas • location of health professional schools/HEIs to attract to under-served areas • expose students to variety of experiences/settings, including community (e.g. rotations) • curricula changes to stimulate interest in difficult to recruit to fields • accessible ongoing education and professional development programmes to support staff retention B. REGULATORY RECOMMENDATIONS • enhanced scopes of practice (to increase the potential for job satisfaction) • explore team diversity / new roles • scholarships, bursaries or other education subsidies (with return of service) • appropriate support and incentives to support any compulsory service requirements C. FINANCIAL INCENTIVES RECOMMENDATION • fiscally sustainable financial incentives e.g. hardship allowances, grants for housing, transportation D. PERSONAL AND PROFESSIONAL SUPPORT RECOMMENDATIONS • improve living conditions for health workers; invest in infrastructure and services • provide good and safe working environments (equipment & supplies, supervision & mentoring) • facilitate cooperation between areas to support under-served areas, e.g. telehealth • career development programmes & career opportunities • professional networks (to reduce feelings of professional isolation) • public recognition measures (awards and titles at local, national and international levels to lift profile and improve intrinsic motivation)
2012	West, Dawson (2012) Employee engagement and NHS performance. 2012: King's Fund London.

	Research points to 2 main sources of engagement: job resources and personal resources.
	1. Job resources: any physical, social, or organisational aspects of the job that may
	        (a) reduce job demands & associated physiological and psychological costs,
	        (b) be functional in achieving work goals,
	        (c) stimulate personal growth, learning and development
	2. Personal resources refers to characteristics of the individual employee such as optimism, resilience, and self-efficacy
	
	"There is relatively little health care-specific evidence regarding the antecedents of engagement, but Mauno et al's (2007) longitudinal study of 409 Finnish health workers found that job control (i.e. the extent of control that employees had over the timing and method of their work tasks) was the best predictor of work engagement, ahead of such factors as management quality, self-esteem and time demands, with job security also a significant predictor.
	
	Likewise, Hakanen et al's (2005) study of 1,919 Finnish dentists found that job control and qualitative workload (i.e. the extent to which employees feel unable to complete all their tasks adequately) were related to engagement. This effect was exacerbated when the level of contact with patients was relatively low, which suggests that interactions with patients may provide a level of intrinsic engagement in its own right."
	
	Staff engagement is strongly linked to turnover, with turnover rates approximately 0.6 per cent lower in trusts that have a one standard deviation higher engagement score, all else being equal (p18).

2014	Health Education England (2014) Growing nursing numbers: Literature review on nurses leaving the NHS.
	• Turnover rates are likely to be higher in inner city hospitals, mental health, critical care, oncology and care of older people • Newly qualified nurses and nurses nearing retirement age are likely to leave • Risk factors: stress, burnout, job dissatisfaction (work overload, perceived unfairness, lack of control, lack of control)
2015	Barriball et al (2015). Recruitment and Retention of the Health Workforce in Europe. Final Report to European Commission. Directorate-General for Health and Food Safety.

	Study based on mapping and review of recruitment and retention practices (academic and grey literature), and 8 case studies focussed on identifying policy and management recommendations. Findings from the literature review taken together bring useful lessons for policymakers, planners, managers, educators and leaders of professional associations. Key messages: 1. Different factors influence recruitment to those that influence retention. Policies & interventions need to be designed differently to take this into account 2. Policy statements proposing strategies to address health workers retention challenges play a critical role in guiding action and mobilising stakeholders 3. Creating a formal support structure (department, working group, observatory) facilitates the design and implementation of recruitment & retention interventions 4. Mobilising stakeholders is a necessary condition of success, but is not sufficient 5. Building the case for investing in recruitment & retention is needed 6. Health professionals respond to incentives; but financial incentives alone are not enough to improve recruitment & retention; policy responses need to be multi-faceted 7. Inter-sectoral collaboration at government level is imperative 8. Different social/geographic contexts require different policies and interventions 9. Different cadres, subgroups and areas of work require different interventions Key messages re implementing interventions: • Offer interventions with enough *freedom to allow different actors to select the elements* that suit their needs and skills set, but with *sufficient structure* to ensure that all actors work towards a common goal. • Design interventions with enough *flexibility to be customised* to different local contexts within country. • Use the *'framework of good practices'* in the report to monitor the implementation of interventions. • Before implementing interventions with little established evidence, *conduct a pilot study* or small-scale experiment to check, change or enhance the working of the intervention. • *Align regulatory frameworks and policies* with organisational priorities and timescales to support *organisational adoption*.
2016	Hannigan, D., J. Patrick and A. Machin (2016), *Maximising retention of nurses: Australian evidence.*
	"In a complete approach to addressing nurse turnover and retention, it is important that (a) all of the above remedies are considered; (b) all stakeholders are involved; and (c) a multi-faceted approach is assumed.… *Management must work together with nurses to improve the nursing environment, keeping in mind the success of "magnet principles"* (p54). *"While Magnet accreditation is not the "be all and end all", it appears to go a long way towards improving the work environment of nurses, and may be a solution to the nurse shortage. Continued research within this area will assist in better understanding the behaviour of magnetism, and harnessing it to advance the delivery of healthcare in the future"* (p147).
2016	National Improvement & Leadership Development Board (2016), *Developing people – Improving care: A national framework for action on improvement and leadership development in NHS-funded services.*
	• Leaders equipped to develop high quality local health and care systems in partnership • Compassionate, inclusive and effective leaders at all levels • Knowledge of improvement methods and how to use them at all levels • Support systems for learning at local, regional and national levels • Enabling, supportive and aligned regulation and oversight
2017	Jones, Ingram, Mustafa (2017). *Narrowing the Gap: considering gen-gagement.* Heath Education England.
	• Understanding why nurses and midwives are leaving the professions and selecting appropriate strategies to promote retention is critical • Need to understand generational differences related to job satisfaction. • Baby boomers were found to be more satisfied with their job than generations X and Y. • Work initially focused on exploring differing generational perspectives. It soon became clear that essential conditions for job satisfaction were, in the main, generic. • Effective retention strategies in the nursing and midwifery workforce can only be applied when the underlying causes for why nurses decide to leave are identified. • Scope of the Narrowing the Gap work was broadened to differentiate and identify both generic and generation-specific factors • Factors highlighted common themes across the different generational typologies, and some generational specificity.

	• More proactive and creative approach to be adopted which encourages leaders and clinical practitioners to work together and find joint solutions to the issues identified, inducing:
	    ○ Work-life balance - when and how to work (self-rostering, working hours etc.)
	    ○ Inclusive talent management tailored to an individual's career, personal and professional aspirations and role responsibilities.
	    ○ Maximise opportunities for nurses approaching retirement to work longer

2017	NHS England and NHS Improvement (2017) *Retaining our people* - *A practical guide to improving retention of clinical staff*.
	Showcases approaches to improving staff retention and provides resources developed by NHS trusts that organisations can download and adapt for their own staff, such as retire and return and flexible working staff policies. Focus is on development and career planning, and tailoring the 'offer' to staff depending on stage of career.
2018	Buchan, J., F. Shaffer, and H. Catton (2018) *Policy brief: Nurse retention*. Geneva: International Centre on Nurse Migration (ICNM)/International Council of Nurses (ICN)/ Commission on Graduates of Foreign Nursing Schools (CGFNS) International
	• What's the problem? In order to identify which interventions may be most effective a, organisations (and policy makers) must have access to data to help diagnose the extent of the problem, assess how it varies across the organisation or system, and pin-point causal factors • Policy makers can apply a framework which draws from the evidence base but focuses on the practical implementation. • Retention improvement frameworks cover: education, regulation, incentives (financial and non-financial), regulation, professional/ personal support, workplace organisation, and professional environment • Sustained success in improving nurse retention is likely to be related to planned, and perhaps sequenced, multi-policy interventions- so called "bundles" of linked policies, rather than single interventions • Identifying the most effective balance of policies to improve retention of nurses depends on understanding the profile of the workforce & developing evidence base on the work experiences and motivations of the nurses • Evaluation of the impact of interventions aimed at improving retention should also be an integral part of any policy framework.
2019	NHS Improvement (2019), *Provider key themes and flow chart*.
2019	NHS Improvement (2019), *The national retention programme: two years on*.
2019	NHS Employers (2019) *Improving staff retention: A guide for employers*.
	• Using data to understand your workforce • Supporting new starters • Flexible working • Career development and planning • Building line manager capability and capacity • Good practice examples • Evaluating retention initiatives
2019	Beech, J., et al., (2019) *Closing the gap: key areas for action on the health and care workforce.* Health Foundation/ King's Fund/ Nuffield Trust.

	• Staffing is make or break issue for the NHS in England
	• Identified shortfall and need to increase supply and improve retention
	• Need to make 'the NHS a better place to work and build a career for all staff' and call for NHS to make explicit their "offer" to all staff:
	    - Pay & reward ('tangible signs of how staff are valued and have clear impact on retention')
	    - Opportunity
	    - CPD (fourfold increase in investment called for to enable frontline staff to enhance skills)
	    - Work-life balance
	    - Proper appraisal
	And other steps to boost retention include:
	    - Improved support at beginning and end of careers
	    - Action to tackle discrimination & inequality (including gender & ethnicity pay gaps; equal opportunities for progression)
	    - Pension scheme (and changes to wider pension policy - frequently cited as a barrier to retention, particularly by more experienced staff)
	    - Compassionate & inclusive leadership: commitment by national bodies to deliver on their pledges to change their behaviours and approaches

2020	West, Bailey, Williams (2020) *The courage of compassion: Supporting nurses and midwives to deliver high-quality care*. The King's Fund.
	Meeting the 'ABC' core needs of nurses. To ensure wellbeing and motivation at work, and to minimise workplace stress, research evidence suggests that people have three core needs: • Autonomy – the need to have control over their work lives, and to be able to act consistently with their values • Belonging – the need to be connected to, cared for, and caring of others around them at work, and to feel valued, respected and supported • Contribution– the need to experience effectiveness in what they do and deliver valued outcomes. All three must be met for people to flourish and thrive at work.
2020	NHS England/ NHS Improvement (2020), *We are the NHS: People plan for 2020/2021– Action for us all*. Available at: www.england.nhs.uk/ournhspeople
	• Looking after our people – with quality health and wellbeing support for everyone • Belonging in the NHS – with a particular focus on tackling the discrimination that some staff face • New ways of working and delivering care – making effective use of the full range of our people's skills and experience • Growing for the future – how we recruit and keep our people, and welcome back colleagues who want to return
2020	Royal College of Nursing (2020), *Speaking up: How UK nursing staff expect to be valued*.
	RCN survey of members (July 2020; N = 42,000): 36% of respondents were considering leaving the profession in the next year, compared with 28% before the (COVID-19) pandemic hit. When asked what was causing them to consider leaving the profession, members told us it was levels of pay (64%); low staffing levels (45%); The way nursing staff had been treated during the pandemic (45%); A lack of management support (44%). "*Three quarters of staff told us that improved pay would make them feel more valued.*"
2020	Nursing and Midwifery Council (2020), *Leavers survey 2019*.
	The three most commonly cited reasons for people leaving the register are the same as in previous years: 1. Retirement 2. Too much pressure 3. Changes in personal circumstances *"If we don't prioritise recruiting more of the skilled staff we need, and retain and support those we have, then we will continue to lose dedicated professionals due to work-related stress and its effect on their mental health – as highlighted in our leavers' survey."* Andrea Sutcliffe (9/12/2020. Available online)
2020	ICN (2020) *Ageing Well? Policies to Support Older Nurses at Work.* International Centre on Nurse Migration (ICNM)/International Council of Nurses (ICN)/ Commission on Graduates of Foreign Nursing Schools (CGFNS) International
	Builds on the World Health Organization's State of the World's Nursing (SOWN) report by detailing the policy implications and actions that are necessary to retain older nurses in the workplace. The report, by the ICNM, ICN and CGFNS International, provides a ten-point plan for supporting older nurses in their work: 1. Understanding the workforce profile and employment needs of older nurses 2. Avoiding age bias in the recruitment process 3. Providing flexible working that meets older nurses' needs 4. Ensuring older nurses have access to professional development and career opportunities 5. Ensuring occupational health and safety policies enable staff wellbeing 6. Supporting job redesign to reduce workload and stress to optimise the contribution of older nurses 7. Maintain pay and benefits that meet older nurses' needs 8. Support older nurses in advanced and specialised practice and mentorship roles 9. Maintain succession planning to enable knowledge transfer and leadership development 10. Provide retirement planning options and flexible pension provision
2020	House of Commons Public Accounts Committee (2020), *NHS nursing workforce: Eighteenth report of session 2019–21*.
2020	Buchan J, Ball J, Shembavnekar N, Charlesworth A. (2020) The Health Foundation, *Building the NHS nursing workforce in England*.

	• Retention, notably of early career and older nurses, requires more consistent and targeted policy attention.	
	• There must also be a sustained policy emphasis on investing in the retention of older and experienced nurses – particularly in community nursing that has an older age profile.	
	• There is a need for NHS data to be more comprehensive. Although there are more frequent NHS workforce data reports than a few years ago, some detail has been lost, for example, age profile by main area of practice is not now published and turnover data is inadequate.	

2021	NHS England (2021), *Our NHS People Promise*.

1. Team
  - Diverse and inclusive
  - Shared vision (for best possible care)
  - Supportive of each other
  - Celebrate successes
2. Flexibility
  - Work-life balance
  - Predictable and flexible working patterns
  - Time off when needed
3. Learning & Developing
  - Supported to reach potential
  - Equal access to opportunities
  - Attract, develop & retain talented people from all backgrounds.
	4. Safety & health
	  - We look after ourselves and each other.
	  - Support when unwell
	  - Environment & facilities to deliver the best possible care
	5. Every voice counts
	  - Staff feel safe and confident to speak up.
	  - Listen fully to one another
	6. Recognised and rewarded
	  - Daily appreciation
	  - Formal recognition for dedication
	  - Fair salary
	7. Compassionate and inclusive
	  - Does not tolerate discrimination, bullying or violence
	  - Open and inclusive
	  - Create a sense of belonging

2021	The Health Foundation/DAS (2021) *Nurse supply model: Projecting the future nursing workforce supply in England*.

The project takes a whole system approach, accounting for what drives nurses' decisions, and producing a model with stakeholder input. The model is being developed by Decision Analysis Services Ltd (DAS). It is an independent management consultancy with expertise in simulation, systems thinking, programme management, investment modelling and data analytics. Due for completion in August 2021.

Economics review: Economic theory was combined with review of the academic literature to identify the factors that determined participation of qualified nurses in the nurse labour market, including inflows from the nurse education market and the net inflows/outflows from return to practice and international nurse labour market.

- Although nurse pay (and job security) has a role in attracting students to the profession, the literature is consistent in finding a low pay elasticity of supply in the short run for qualified nurses. This is because nurses must continue to work as nurses to maintain their licence to practice.
- Non-pecuniary factors are much bigger drivers of nurse dissatisfaction and of decisions to quit than dissatisfaction with pay, in particular:
  - high workload and associated stress and
  - 'being unable to deliver appropriate quality of care'
- There are few estimates of the relative elasticity of nurse labour supply to these non-pecuniary factors.

System mapping: use diagrammatic modelling approaches to better understand nurse participation decisions. Over 110 separate factors were identified as influential within the nurse supply system, and their degree of influence assessed.

2021	Milne, P. (2021) *Aging Nursing Workforce and Retention (BMJ Blog – Evidence Based Nurisng)*.

- 20.8% of NMC registrants (30 Sept 2020) are aged >55 – up from 17.6% in 2016
- not a 'one-size fits all' strategy; need an environment where older nurses feel they are listened to, valued and respected (Markowski et al, 2020)
- 64 % of Covid-19 pandemic temporary register (12,756 registrants) are >55; how can they be encouraged to remain in practice beyond the (COVID-19) pandemic?

Consideration needs be given to:
- Flexible working – e.g. option for shifts < 12 hours; annualised hours; twilight shifts
- Blended roles – e.g. 1 day a week in non-clinical lead role (e.g. as mentor, research activity)
- Working with menopause (support, education/awareness of managers)
- Retirement planning (raise awareness of retire and return rules)

4.2 Thematic review of findings: work-place factors

We reviewed the themes emerging in relation to the organisaiotnal factors related to nurse retention, and identified eight key themes, depicted in Figure 1. Each of these are described (with reference to supporting literature) in the text below but four overarching points to note.

Firstly, there are multiple factors; no single solution or intervention holds the answer to the problem of nurses leaving, due to dissatisfaction with their jobs. Secondly, job satisfaction is central. Nurses may leave their jobs for reasons that are unconnected to dissatisfaction, such as to have children, take a career break or because they are moving to a new area. Some degree of turnover and wastage is natural part of workforce dynamics, and is to be expected. It is 'avoidable wastage' or higher than expected levels of turnover, that employers and policy makers can potentially influence as these are elements that are potentially modifiable. Hence the central importance of nurses satisfaction with their jobs.

Thirdly, that the factors overlap. For example, being able to get satisfaction from achieving care excellence requires other components to be in place: adequate staffing and resources, up to date skills and knowledge, good relationships with colleagues and support from managers, able to utilise nursing skills and knowledge.

Finally, we have arranged the themes in this clustered way, rather than as a list, to emphasise that whilst we know some features may be particular important to some sub-groups (for example development and education as an effective means of retaining early career nurses) there is no clear pattern discernible from the research to date, to say the relative importance of different factors, or point to a hierarchy.
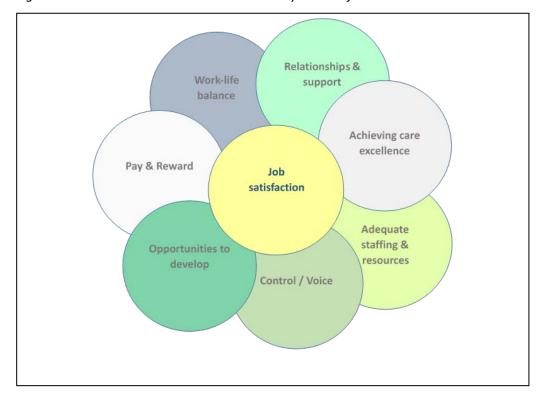
Figure 1. Factors related to nurse retention: key themes from the literature

a) Job satisfaction & work engagement

It's an oxymoron that nurses that are satisfied with their jobs are less likely to leave, or to want to leave, due to job-dissatisfaction and it is this type of leaving behaviour (termed 'dysfunctional turnover') that employers and policy makers seek to address. Much of the research on intention to leave, has focussed specifically on leaving due to job dissatisfaction (9). Conversely the evidence around why nurses stay is clearly bound up with the factors associated with greater job satisfaction and higher levels of engagement amongst staff. West & Dawson make this explicit in their report on NHS performance and employee engagement; staff engagement is strongly linked to turnover (Kings Fund, 2012).

There is substantial evidence that a key driver for nurses staying in the profession is the satisfaction of the job (10-13) and the intrinsically rewarding nature of nursing (14-16). Furthermore, organisational factors play an important role in retaining nurses in their profession (17-22) reinforcing the direct role of the work environment (23, 24) in nurse retention.

b) Relationships: support from colleagues and managers

Team cohesion (22, 25-29) and support from colleagues (30-32) foster an environment conducive for nurse retention. More specifically, retention is associated with effective communication between staff (33), as well as the nature and quality of relationship with staff (19, 34). Noticeably, this is true for both new and experienced nurses (18). Another study found that nurses were more inclined to stay when they were satisfied with support from administration (29, 34).

Nurse retention is also associated with the role, type and quality of leadership (18, 26, 35, 36), as well as the positive perception nurses have from their managers (25). Support from supervisors and management are valued by nurses and encourage them to stay (19, 21, 23, 24, 27, 28, 30, 37). Style of leadership (38) as well as daily interactions with managers (39) were also found to be associated with nurse retention. This emphasises the concept that nurses value the quality of relationships with their managers (40). Furthermore, feeling valued and listened to by their leadership team reinforces nurses' desire to stay (26, 28, 41, 42)

c) Achieving care excellence

When considering other organisational factors contributing to their retention, nurses highlighted that high quality of care was important for them. More specifically this includes continuity of care (21), patient safety (28), and positive connections with patients and their families (19); nurses also want to be able to deliver nursing standard they aspire to (43). Conversely moral distress in the workplace is a deterrent to nurse retention. (26)

The literature on Magnet hospitals exemplifies the relationship between care excellence and retention; hospitals that both achieve better patient outcomes are also reported to be better at attracting and retaining nurses (13, 44-47).

d) Adequate staffing and resources (to do the job well)

Achieving care excellence is closely connected with staffing levels and having adequate resources to do the job well. The relationship between job dissatisfaction, emotional exhaustion and nurse staffing was identified in UK data, form a wide scale survey of nurses almost twenty years ago (48). Adequate staffing level and physical resources help nurse to deliver high-quality patient care in a demanding environment (19, 34, 49). This enables workload to being spread among team members and perceived as more reasonable by nurses (36).

e) Work-life balance (choice and control over when and how to work)

Given that the nursing workforce is predominantly female, includes staff with childcare responsibilities, and that we have an ageing nurse workforce, work-life balance factors are particularly relevant (50).

Flexibility in nurses work (18, 41, 51) or in their schedule (52) was positively associated with nurse retention. One study found that nurses were more likely to stay when age-appropriate scheduling practices were considered during the organisation of shifts (19). The opportunity to work social hours (18, 42) and maintaining a good work-life balance (19, 21, 43) were identified as factors related with nurse retention.

Hospitals with family-friendly policies in place were more likely to retain their staff (18, 30, 42), whilst in some instances Trusts have lost their staff because a neighbouring Trust was offering more family-friendly policies (35). Research has found a correlation between nurses having young children and their likelihood of staying in their jobs (37, 53) and there is evidence that the offer of support for child and elder care may influence nurses intentions to stay or leave their jobs (19).

f) Pay & Reward

The role of pecuniary rewards was also examined. Reports from the RCN underscore the importance of pay, reporting on a survey in 2020 in which "*three quarters of staff told us that improved pay would make them feel more valued.*" As the 'Closing the Gap' report (2019) noted, the pay and rewards the NHS offer present '*tangible signs of how staff are valued and have a clear impact on retention".*

Two studies found that nurses who experience greater income stability were more likely to stay in their profession (21, 51). This was confirmed in other studies where wages and nurse retention were positively related (18, 21, 28, 53-55). Beyond the pecuniary aspect, the contractual factors were important too. Having a permanent contract, possibly reflecting job security, played an important role in nurse retention (30). From a long-term perspective, nurse also valued the pension benefits their organisation could offer (19).

g) Opportunities to develop

Nurses not only value but consider important the investment made by their employers in their career (23, 24, 30) by offering tailored and ongoing education programs (18, 30, 37, 49, 56, 57), continuing professional development (35, 43, 49) and mentorship to improve their skills and knowledge (18, 30, 31, 49). All these factors were found to be positively associated with nurse retention as nurses were then better equipped for promotion (19, 36, 58). For instance, nurses in managerial position (58, 59) or other innovative roles (18) were more inclined to stay because their role challenged them and reduced a certain "routine" in their work (28).

h) Control over work lives: autonomy, involvement and voice

The King's Fund (2020) ABC highlights the importance of autonomy and control as core needs in relation to nurses' work motivation: the need to have control over their work lives, and to be able to act consistently with their values.

Research finds that nurses who participate in the wider running of the organisation (43) or hospital committees (19) were more inclined to stay. Participation in hospital affairs gave nurses a sense of empowerment and agency, increasing job satisfaction and improving retention. Connected to this, levels of perceived autonomy and nurse retention were also positively associated (18, 30, 40, 59).

4.3 Other factors related to retention

i) Job tenure

There is evidence that job tenure is positively associated with nurse retention (22, 27, 57, 58); the longer you are in nursing, the more likely you are to stay in nursing. Some studies report that nurse retention is positively related with both years of registration (58) and age (26, 27, 58), reinforcing the idea that nurses who remain see the importance of their work (40, 60), have built resilience despite the difficulty of their work (e.g. learning to cope with the reality of end-of-life care, etc) (49) and have made a long lasting commitment to stay in nursing (40, 60).

ii) Generational differences?

Nurses at various stage of their career or coming from different generation (i.e. Boomers, Generations, X, Y and Z) may have different work values and needs. Some have argued that retention interventions should be tailored according to the generational diversity of the workforce, arguing that different generations may differ in work and social values (60). Yet, there is conflicting evidence in the literature.

In contrast with Australian nurses (36, 40), UK nurses are found to be more homogeneous across the three age generations (i.e. Boomers, Generations X and Y) regarding their intention to stay, with work attachment identified as the strongest marginal predictor of nurse retention (60). The authors suggested that in the UK, differentiated approaches to retention based on generational difference may not be warranted.

iii) Career stage and grade

Tailored-retention strategies based on nurses' grades are sometimes considered by management who recognise the needs of nurses may vary depending on their career stage (30). For instance, one study found that CPE was targeted for new staff, whilst managers pointed out the benefits of permanent contracts and family-friendly policies for more experienced nurses (52).

iv) Age: retaining older nurses

We know from analysis of NMC data that in the UK nurses are more likely to leave the profession pre-retirement near the beginning and towards the end of their careers. The challenge (and necessity) of retaining older nurses is recognised world-wide; the *'Aging Well*?' report builds on the World Health Organization's State of the World's Nursing (SOWN) report by detailing the policy implications and actions that are necessary to retain older nurses in the workplace. According to author James Buchan: "*We need to improve the retention of older nurses, otherwise we risk losing the most experienced members of the profession at a time when the pandemic has exposed the risk of global nursing shortages*".

v) Importance of context: specialty, location & labour market

The Health Education England (2014) report reviewing why nurses leave the NHS highlighted the fact that turnover rates are likely to be higher in inner city hospitals, and amongst certain specialities (mental health, critical care, oncology and care of older people).

Noticeably, external factors such as the proximity of the hospital (55), reasonably priced and safe parking (19), or facilities in areas with higher per capita income and higher unemployment reflecting poor labour market opportunities (20) contributed to nurse retention.

There is also evidence that some nurses stay as a result of lack of alternative job opportunities (24). Employees displaying this type of behaviour are usually referred to as reluctant stayers in the literature (61-64). Whilst this review is primarily focussed on opportunity to improves retention, it is worth noting that retention itself is not equivalent to job satisfaction and positive work experience: some nurses may stay in the profession because they are constrained to rather than because they want to.

4.4 Using data to identify effective solutions: tailoring the response

Retention strategies can be based on an analysis of the workforce (30, 35, 52, 65) and use of data on potential and actual leavers (30, 35). Whilst employers roles in implementing organisational changes to improve retention is key, it's crucial that changes and retention interventions developed are tailored to respond to nurses views and needs (66, 67). Imposing organisational changes without consulting nurses can lead to initiatives failing to have an impact, or worse, interventions having a negative impact on nurse retention (68, 69).

According to an international policy brief published in 2018, in order to identify which interventions may be most effective, organisations (and policy makers) must have access to data to help diagnose

the extent of the problem, assess how it varies across the organisation or system, and pin-point causal factors. Sustaining improvement in nurse retention is likely to be driven by "bundles" of linked policies, rather than single interventions; identifying the most effective balance of policies relies upon understanding the profile of the workforce and evidence based insight into the work experiences and motivations of nurses. Data availability and analysis is thus key; the Health Foundation 2020 report highlights the challenge: *"There is a need for NHS data to be more comprehensive. Although there are more frequent NHS workforce data reports than a few years ago, some detail has been lost, for example, age profile by main area of practice is not now published and turnover data is inadequate."*

4.5 Emerging Themes – towards a framework

This review has identified the following themes:

a) Job satisfaction & work engagement

b) Relationships: support from colleagues and managers

c) Achieving care excellence

d) Adequate staffing and resources (to do the job well)

e) Work-life balance (choice and control over when and how work)

f) Pay & Reward

g) Opportunities to develop and progress

h) Control over work lives: autonomy, involvement and voice

These are placed alongside two other frameworks/points of reference: themes emerging from Twigg & McCullough's review of strategies to create and enhance positive practice environments in clinical settings (17), to promote nurse retention the tenets of NHS People Promise (Table 2).

Table 2: Positive work factors - themes identified that may contribute to nurse retention

Links with NHS People Promise	Twigg & McCullough (2014)	Themes from current review
1. Team / Leadership	Leadership support	b) Relationships: support from colleagues and managers
	Collegial relationships within healthcare team	
2. Autonomy & Shared Professional Decision Making	Autonomy	h) Control over work lives: autonomy, involvement and voice
	Shared governance structure	
3. Professional development & careers	Professional development	g) Opportunities to develop
4. Enabled to deliver high quality care		c) Achieving care excellence
	Empowering work environment	
	Adequate numbers and skill mix	d) Adequate staffing & resources (to do the job well)
5. Flexibility to manage work-life balance		e) Work-life balance (choice and control over when and how work)
6. Meaningful recognition		
7. Health and wellbeing support		
8. Pay and reward - integrated into recognition		f) Pay & Reward

5. Discussion

5.1 Multi-faceted approaches

Organisational factors positively associated with nurse retention are multi-faceted, suggesting a "one fit-for-all strategy" is unlikely to achieve the desired results. Based on the major themes emerging, improving retention is likely to require a blended strategy that combines continuing professional development, team cohesion and creation of a work environments that enable the delivery of high standard healthcare, in addition to wellbeing support and family-friendly policies.

5.2 Knowledge gaps: implications for next steps

Much of the evidence from UK research centres on qualitative interviews to explore factors associated with retention, or examine interventions. Small-scale samples from many of the UK studies limit their generalisability but many of the findings are echoed in the international literature. A strength of the theses studies is the attention to nurses' perspectives and insight into their motivations for staying, and opportunity to retention interventions that are tailored accordingly.

In the UK, researchers should strive to undertake larger scale studies, with longitudinal design to not only quantify the influence of those organisational factors, but also establish the causality of these factors on nurse retention, and arrive at a more nuanced insight of what works best for who, where, in what context.

Outstanding issues include:

- Lack of robust research evaluation on interventions
- Which factors are most valued by nurses in different contexts? Relative importance of different retention factors to different groups in different contexts needs understanding in order to target policy and practice interventions.
- Cross-sectional research - lack of UK microdata has resulted in limited capability to undertake longitudinal based analysis. Better research is needed on actual behaviour (job changes, leaving NHS, leaving profession) and to establish the causality in the relationships between organisational factors identified in the literature and reports, and nurse retention.
- The need for more clearly differentiated insight into factors creating local problems, specialty problems, or national generic challenges in retention of nurses within NHS and nursing. Much of the research and intelligence to date is at a high level, without deconstructing the variation in how different factors influence difference nurses, or the intersection between different factors.

References

1.   James Buchan JB, Nihar Shembavnekar, Anita Charlesworth. Building the NHS nursing workforce in England. 8 Salisbury Square, London, EC4Y 8AP: Health Foundation 2020.

2.   NMC. NMC Register. 2017 30 Sept 2017. Report No.

3.   Parliament) HCU. Nursing workforce inquiry [cited 2017 5 Dec]. Available from: https://www.parliament.uk/business/committees/committees-a-z/commons-select/health-committee/inquiries/parliament-2017/inquiry/.

4.   England HE. Facing the Facts, Shaping the Future, A health and care workforce strategy for England to 2027. 2017 13 Dec 2017. Report No.

5.   Duffield CM, Roche MA, Homer C, Buchan J, Dimitrelis S. A comparative review of nurse turnover rates and costs across countries. Journal of advanced nursing. 2014;70(12):2703-12.

6.   Jones C, Gates M. The costs and benefits of nurse turnover: A business case for nurse retention. The Online Journal of Issues in Nursing. 2007;12(3).

7.   Li Y, Jones CB. A literature review of nursing turnover costs. Journal of nursing management. 2013;21(3):405-18.

8.   McConnell CR. Staff turnover: occasional friend, frequent foe, and continuing frustration. The health care manager. 1999;18(1):1-13.

9.   Heinen MM, van Achterberg T, Schwendimann R, Zander B, Matthews A, Kozka M, et al. Nurses' intention to leave their profession: a cross sectional observational study in 10 European countries. Int J Nurs Stud. 2013;50(2):174-84.

10.   Department of Health. What matters to NHS staff? Community Practitioner. 2008;81(8):42.

11.   Health Education England. Growing nursing numbers: Literature review on nurses leaving the NHS. 2014.

12.   National Improvement & Leadership Development Board. Developing people – Improving care: A national framework for action on improvement and leadership development in NHS-funded services. 2016.

13.   Hannigan D, Patrick J, Machin A. Maximising retention of nurses: Australian evidence. 2016.

14.   NHS England and NHS Improvement. Retaining our people - A practical guide to improving retention of clinical staff. 2017.

15.   Beech J, Bottery S, Charlesworth A, Evans H, Gershlick B, Hemmings N, et al. Closing the gap: key areas for action on the health and care workforce. Retrieved. 2019;7:2019-03.

16.   NHS Employers. Improving staff retention: A guide for employers. 2019.

17.   Twigg D, McCullough K. Nurse retention: a review of strategies to create and enhance positive practice environments in clinical settings. International journal of nursing studies. 2014;51(1):85-92.

18.   Chenoweth L, Yun-Hee J, Merlyn T, Brodaty H. A systematic review of what factors attract and retain nurses in aged and dementia care. Journal of Clinical Nursing (John Wiley & Sons, Inc). 2010;19(1-2):156-67.

19.   Tourangeau AE, Cummings G, Cranley LA, Ferron EM, Harvey S. Determinants of hospital nurse intention to remain employed: broadening our understanding. Journal of Advanced Nursing (John Wiley & Sons, Inc). 2010;66(1):22-32.

20.   Donoghue C. Nursing home staff turnover and retention: an analysis of national level data. Journal of Applied Gerontology. 2010;29(1):89-106.

21.   Tourangeau AE, Patterson E, Saari M, Thomson H, Cranley L. Work-related factors influencing home care nurse intent to remain employed. Health Care Management Review. 2017;42(1).

22.   Tourangeau AE, Cranley LA. Nurse intention to remain employed: understanding and strengthening determinants. Journal of advanced nursing. 2006;55(4):497-509.

23.   Newman K, Maylor U. The NHS Plan: Nurse satisfaction, commitment and retention strategies. Health Services Management Research. 2002;15(2):93-105.

24.   Newman K, Maylor U, Chansarkar B. "The nurse satisfaction, service quality and nurse retention chain": implications for management of recruitment and retention. Journal of management in medicine. 2002;16(4-5):271-91.

25.   Acree CM. The relationship between nursing leadership practices and hospital nursing retention. Newborn & Infant Nursing Reviews. 2006;6(1):34-40.

26.   Cowden TL, Cummings GG. Nursing theory and concept development: a theoretical model of clinical nurses' intentions to stay in their current positions. Journal of Advanced Nursing (John Wiley & Sons, Inc). 2012;68(7):1646-57.

27.   Hayhurst A, Saylor C, Stuenkel D. Work environmental factors and retention of nurses. Journal of Nursing Care Quality. 2005;20(3):283-8.

28.   Karlsson AC, Gunningberg L, Bäckström J, Pöder U. Registered nurses' perspectives of work satisfaction, patient safety and intention to stay – A double-edged sword. Journal of Nursing Management (John Wiley & Sons, Inc). 2019;27(7):1359-65.

29.   Sourdif J. Predictors of nurses' intent to stay at work in a university health center. Nursing & Health Sciences. 2004;6(1):59-68.

30.   Gould D. Locally targeted initiatives to recruit and retain nurses in England. Journal of nursing management. 2006;14(4):255-61.

31.   Johnston S, Heneghan P, Daniels P. Mentoring initiative to retain community-based registered nurses in palliative care. British Journal of Community Nursing. 2020;25(7):335-9.

32.   Kooker BM, Kamikawa C. Successful strategies to improve RN retention and patient outcomes. Communicating Nursing Research. 2010;43:308-.

33.   Cowin LS, Johnson M, Craven RG, Marsh HW. Causal modeling of self-concept, job satisfaction, and retention of nurses. International journal of nursing studies. 2008;45(10):1449-59.

34.   Robertson JF, Herth KA, Cummings CC. Long-term care: retention of nurses. Journal of Gerontological Nursing. 1994:4-10.

35.   Drennan VM, Halter M, Gale J, Harris R. Retaining nurses in metropolitan areas: insights from senior nurse and human resource managers. Journal of Nursing Management (John Wiley & Sons, Inc). 2016;24(8):1041-8.

36.   Tourangeau AE, Cummings G, Squires M, Cranley L. Work situations and hospital nurse intention to remain employed. Communicating Nursing Research. 2010;43:309-.

37.   Robinson S, Murrells T, Smith EM. Retaining the mental health nursing workforce: Early indicators of retention and attrition. International Journal of Mental Health Nursing. 2005;14(4):230-42.

38.   Ngabonzima A, Asingizwe D, Kouveliotis K. Influence of nurse and midwife managerial leadership styles on job satisfaction, intention to stay, and services provision in selected hospitals of Rwanda. BMC Nursing. 2020;19(1):1-11.

39.   Noguchi-Watanabe M, Yamamoto-Mitani N, Nagami Y, Eltaybani S, Inagaki A, Taniguchi Y. Homecare nurses' length of conversation and intention to remain at the workplace: A multilevel analysis. Journal of nursing management. 2020.

40.   Shacklock K, Brunetto Y. The intention to continue nursing: work variables affecting three nurse generations in Australia. Journal of Advanced Nursing (John Wiley & Sons, Inc). 2012;68(1):36-46.

41.   Domm E, Donnelly G, Leurer MD. Experienced nurses recommended strategies for retention of nurses in health care organizations. Kansas Nurse. 2007;82(4):3-4.

42.   Gould D, Fontenla M. Commitment to nursing: results of a qualitative interview study. Journal of nursing management. 2006;14(3):213-21.

43.   Carter MR, Tourangeau AE. Staying in nursing: what factors determine whether nurses intend to remain employed? Journal of advanced nursing. 2012;68(7):1589-600.

44.   Aiken LH, Smith HL, Lake ET. Lower Medicare mortality among a set of hospitals known for good nursing care. Medical care. 1994:771-87.

45.   Aiken LH, Havens DS, Sloane DM. The magnet nursing services recognition program: A comparison of two groups of magnet hospitals. AJN The American Journal of Nursing. 2000;100(3):26-36.

46.   Kelly LA, McHugh MD, Aiken LH. Nurse outcomes in Magnet® and non-Magnet hospitals. The Journal of nursing administration. 2012;42(10 Suppl):S44.

47.   Anstee S BJ. Evaluating the evidence: are Magnet hospitals better for staff and patients. Nursing Times. 2020:45-6.

48.   Sheward L, Hunt J, Hagen S, Macleod M, Ball J. The relationship between UK hospital nurse staffing and emotional exhaustion and job dissatisfaction. J Nurs Manag. 2005;13(1):51-60.

49.   Whiting L, O'Grady M, Whiting M, Petty J. Factors influencing nurse retention within children's palliative care. Journal of child health care : for professionals working with children in the hospital and community. 2020:1367493520971426.

50.   Simoens S, Villeneuve M, Hurst J. Tackling nurse shortages in OECD countries. 2005.

51.   Wilson C. Why stay in nursing? Nursing Management - UK. 2006;12(9):24-32.

52.   Gould D, Fontenla M. Strategies to recruit and retain the nursing workforce in England: A telephone interview study. Journal of Research in Nursing. 2006;11(1):3-17.

53.   Brewer CS, Kovner CT, Greene W, Cheng Y. Predictors of RNs' intent to work and work decisions 1 year later in a US national sample. International Journal of Nursing Studies. 2009;46(7):940-56.

54.   Drennan V, Andrews S, Sidhu R, Peacock R. Attracting and retaining nurses in primary care. British Journal of Community Nursing. 2006;11(6):242-6.

55.   Heidari M SB, Gharebagh ZA. Nursing staff retention: Effective factors. Annals of Tropical Medicine & Public Health. 2017;10(6):1467-73.

56.   Doiron D, Hall J, Kenny P, Street DJ. Job preferences of students and new graduates in nursing. Applied Economics. 2014;46(9):924-39.

57.   Ellenbecker CH, Porell FW, Samia L, Byleckie JJ, Milburn M. Predictors of home healthcare nurse retention. Journal of Nursing Scholarship. 2008;40(2):151-60.

58.   Doiron D, Jones G. Nurses' retention and hospital characteristics in New South Wales. Economic Record. 2006;82(256):11-29.

59.   Kerzman H, Van Dijk D, Siman-Tov M, Friedman S, Goldberg S. Professional characteristics and work attitudes of hospital nurses who leave compared with those who stay. Journal of Nursing Management. 2020;28(6):1364-71.

60.   Robson A, Robson F. Do nurses wish to continue working for the UK National Health Service? A comparative study of three generations of nurses. Journal of Advanced Nursing. 2015;71(1):65-77.

61.   Bowen DE. Some unintended consequences of intention to quit. Academy of Management Review. 1982;7(2):205-11.

62.   Mowday RT, Porter LW, Steers RM. Employee—organization linkages: The psychology of commitment, absenteeism, and turnover: Academic press; 2013.

63.   Maertz Jr CP. Further clarifying proximal withdrawal states and the turnover criterion space: Comment on Hom, Mitchell, Lee, and Griffeth (2012). 2012.

64.   Hom PW, Mitchell TR, Lee TW, Griffeth RW. Reviewing employee turnover: focusing on proximal withdrawal states and an expanded criterion. Psychological bulletin. 2012;138(5):831.

65.   Hogan P. Human resource management strategies for the retention of nurses. Contemporary Nurse: A Journal for the Australian Nursing Profession. 2001;10(3-4):251-7.

66.   Jackson D, Mannix J, Daly J. Retaining a viable workforce: a critical challenge for nursing. Contemporary nurse. 2001;11(2-3):163-72.

67.   Szeremeta L, Shamash N. Improving staff retention and career progression. Nursing times. 2016;112(18):18-20.

68.   Droppleman PG, Thomas SP. Anger in nurses: don't lose it, use it. Am J Nurs. 1996;96(4):26-31; quiz 2.

69.   Ellenbecker CH, Samia L, Cushman MJ, Porell FW. Employer retention strategies and their effect on nurses' job satisfaction and intent to stay. Home Health Care Services Quarterly. 2007;26(1):43-58.