45th Biennial Convention (16-20 November 2019)

The TRACS Project: A Mixed-Methods Project Exploring a Universal Model for Improving Nurse Retention

Janet M. E. Scammell, DNSci, MSc (Nsg), BA (SocSci), DipNEd, RGN, SCM, RNT
Steve Tee
Sharon Docherty
Sarah Collard
Sue Higgins, MSN
Andy Powell, MSN
Martin Hind
Sarah Eales

(1)Faculty of Health and Social Sciences, Bournemouth University, Bournemouth, England
(2)Bournemouth University, Bournemouth, United Kingdom
(3)Royal Bournemouth and Christchurch Hospitals/Bournemouth University, Bournemouth, United Kingdom

Context: Globally there is a shortage of registered nurses (RNs), with the largest shortages in South East Asia and Africa (Heinen 2013; HEE 2014; WHO 2018). The World Health Organisation (WHO 2018) predict 9 million more nurses will be required worldwide by 2030 to reach Sustainable Development Goal 3: Good health and wellbeing. As well as buoyant recruitment to the profession, retention of the current RN workforce is crucial. Registered nurses leaving their jobs and the profession are an issue of international concern with supply-demand gaps reported to be widening (Halter et al. 2017). This is further compounded by attrition in pre-registration/licensure nurse education programmes reportedly up to 25% in the UK (Jones-Berry 2018) and 50% in North America (Merkley 2016). In addition, the international nursing workforce is ageing (Sherman et al. 2013), with one in three nurses in the UK due to retire within the next ten years (RCN 2018), reflecting similar trends elsewhere.

Nurses account for 50% of the global workforce (WHO 2018) and are central to care provision. So with unprecedented demand for healthcare arising from people living longer with multiple physical and mental health conditions, the contribution of RNs is vital (RCN 2018). However the UK Nursing and Midwifery Council (NMC) reported 1678 fewer nurses and midwives on the NMC register in September 2016 than 2015 with more nurses leaving the register than joining it (NMC 2017). Such high nurse turnover and absences quickly affect quality of care outcomes (Daouk-Oyry et al. 2014).

Recent surveys suggest that apart from changing personal circumstances, the top reason for leaving the profession is working conditions, including staffing levels, high workload and disillusionment with care quality provided to patients (NMC 2017). The strongest supported determinants of turnover include stress and burnout, job satisfaction and to a lesser degree, commitment with supervisor support being the most supported determinant for retention (Halter et al, 2017). Whilst a large body of evidence exists concerning factors and interventions linked to nurse retention, the quality of this evidence is limited (Halter et al. 2017).
Aim: This paper reports on the findings from the first of two linked collaborative projects involving a UK University and a large health service provider to explore TRACS, an innovative evidence-based model for improving nurse retention. The model comprises five key elements known to influence nurses' decisions to leave or stay in the profession: Transition, Resilience, Authentic leadership, Commitment and Support.

Methods: A mixed method approach was employed and ethics approval gained from the university involved and the Health Research Authority (HRA). Initially organisational data relating to two clinical directorates in one acute hospital (Older Person’s Medicine (OPM) and Surgical) were collated to provide an overview of RN staffing levels. These data were derived from Human Resources records (October 2016-September 2017) of sickness, absence and staff turnover. To gain a better understanding of the situation for RNs within the directorates, RNs from OPM (n=147) and the Surgical (n=131) directorates were asked to complete the Practice Environment Scale-Nursing Workforce Inventory (PES-NWI) (Lake 2002) and Maslach Burnout Inventory (MBI) (Maslach et al 1996) instruments.

Open staff consultation events with RNs from across the organisation (n=21) were also held to identify areas for potential intervention. Thematic content analysis informed the development of an interactive web portal to support nurse retention.

Results: Human Resources data revealed that OPM has significantly higher levels of RN staff turnover (p = 0.006) and vacant posts (p < 0.001) than the surgical directorate over the year October 2016 to September 2017. The most notable difference was in the vacant posts, with a median of 20% of the full time equivalent posts the hospital had funded within OPM unfilled compared with 7% in the Surgical directorate. There was no difference between the directorates in terms of the number of RN absences due to sickness.

A total of 122 RN participants responded to the combined PES-NWI and MBI questionnaires comprising a response rate of 39.5% from OPM and 48.8% from Surgical. The PES-NWI composite and 5 subscale scores were very similar across both directorates, with the mean (SD) Composite Score (out of 20) for OPM at 13.71 (2.61) compared to 13.63 (1.68) for Surgical. Within OPM, respondents scored highest (median score > 3/4) for the importance of supportive managers, teamwork, and development through preceptorship. The most negative impact on work life was lack of staff (median score ≤ 2/4). There were no differences between the directorates for Emotional Exhaustion, Depersonalisation or Personal Accomplishment as measured by the MBI.

The staff consultation exercise was used to engage nurses across the Trust in the topic and explore reasons people decide to stay and leave. Both this and the survey data, supported much of the literature on nurse retention; the main factors that influenced intent to stay included working in an environment where staff feel valued and empowered, with strong nursing leadership and support in their role through education and development, person-centred appraisal and support for wellbeing. Where staff are more negative about their work experience and therefore at risk of leaving feel that there is insufficient resources both staff and equipment, leading to a task centred approach, compounded by poor nurse leadership.

This feedback was used to inform the design an interactive ‘one stop shop’ web portal based on the TRACS model of key information and resources for RNs, available via any
A future linked project will use the reported data for comparative purposes to evaluate the portal and other interventions. 

**Conclusion:** Nurse shortages are a global concern for health service and nurse education providers. Collaborative strategies that focus on recruitment, retention and transition are important in a highly competitive employment market. The co-created TRACS model focuses attention on this critical issue and will be of interest to an international audience.

**Title:**
The TRACS Project: A Mixed-Methods Project Exploring a Universal Model for Improving Nurse Retention

**Keywords:**
Nurse retention, conceptual model and mixed methods

**References:**
Heinen et al. (2013) Study to determine factors associated with nurse retention in a cross sectional observational study in 10 Euro countries. *International Journal of Nursing Studies*
Abstract Summary:
Nurse shortages are of global concern. This presentation reports the findings from the first of two linked projects exploring an evidence-based model to improve nurse retention. Whilst the project setting is an acute hospital setting in the United Kingdom (UK), there is transferability to more universal care settings internationally.

Content Outline:
1. Introduction
   1. Project title and scope; introduction to project team and setting
   2. Overview of presentation including session objectives
2. Body
   1. Main Point #1 International shortage of nurses
      1. Supporting point #1 Nurse turnover
         1. a) Nurse student attrition
         2. b) Nurse leavers: work stress, feeling devalued, ageing nurse population
      2. Supporting point #2 Increasing care demands
         1. a) Ageing population; increased co-morbidities
         2. b) Changing professional responsibilities
   2. Main Point #2 Reasons for nurse retention problems
      1. Supporting point #1 Workload
         2. a) Burnout
         3. b) Poor practice environment
      3. Supporting point #2 Personal factors
         1. a) Transition and impact on career trajectory
         2. b) Work-life balance
   2. Main Point #3 TRACS model and findings
      1. Supporting point #1 Model development
         1. a) Literature review
         2. b) Transition; Resilience; Authentic leadership; Commitment; Support
      2. Supporting point #2 Workforce data in one organisation
         1. a) sickness absence turnover
         2. b) comparison between older person medicine and surgical directorate RNs
      3. Supporting point #3 Burnout and impact of practice environment
         1. a) Maslach burnout inventory results
         2. b) PES-NWI results

III. Conclusion
Interventions and future plan
1. Complex picture of nurse retention
2. Interactive web portal
3. Link project related to testing interventions

First Primary Presenting Author
Primary Presenting Author
Janet M. E. Scammell, DNSci, MSc (Nsg), BA (SocSci), DipNEd, RGN, SCM, RNT
Bournemouth University
Faculty of Health and Social Sciences
Associate professor
Bournemouth
England

**Author Summary:** Janet is an experienced nurse academic with a research interests in nurse education and health inequalities concerning older people as well as for people from Black and Minority Ethnic (BME) backgrounds. She is leading a number of service evaluations in nurse education and leads and teaches humanising care issues at under and post-graduate levels. She is a Principle Fellow of the Higher Education Academy and has considerable experience of leading innovative curriculum development.

**Second Secondary Presenting Author**
**Corresponding Secondary Presenting Author**
Steve Tee
Bournemouth University
Dean
Bournemouth
United Kingdom

**Author Summary:** Co-investigator for the TRACS study. Considerable experience in a range of research projects especially related to nurse education. Steve is national Teaching Fellow in the UK.

**Third Secondary Presenting Author**
**Corresponding Secondary Presenting Author**
Sharon Docherty
Bournemouth University
Senior lecturer
Bournemouth
United Kingdom

**Author Summary:** Sharon is a co-investigator on the TRACS project. She brings a wealth of quantitative methodological expertise to the project and supports less experienced team members

**Fourth Secondary Presenting Author**
**Corresponding Secondary Presenting Author**
Sarah Collard
Bournemouth University
Post-doc researcher
Bournemouth
United Kingdom
**Author Summary:** Sat rah has been involved in the TRACS project as the post-doctoral researcher for a year. She has a range of qualitative and quantitative research skills and her current role is as the project coordinator.

**Fifth Secondary Presenting Author**

*Corresponding Secondary Presenting Author*
Sue Higgins, MSN
Royal Bournemouth and Christchurch Hospitals/Bournemouth University
Project manager
Bournemouth
United Kingdom

**Author Summary:** Sue is the Health care organisation project manager for the TRACS project. Sue helps to facilitate the collaborative partnership between the university and the hospital.

**Sixth Secondary Presenting Author**

*Corresponding Secondary Presenting Author*
Andy Powell, MSN
Bournemouth University
Researcher
Bournemouth
United Kingdom

**Author Summary:** Andy supports the TRACS project by providing quantitative analytical expertise. He is also a member of the project delivery team and actively involved in key project outputs.

**Seventh Secondary Presenting Author**

*Corresponding Secondary Presenting Author*
Martin Hind
Bournemouth University
Senior lecturer
Bournemouth
United Kingdom

**Author Summary:** Martin has been a member of the TRACS project delivery team since its inception. He has undertaken a range of work particularly around the implementation of the MBI and PES-NWI surveys and analysed the results.

**Eighth Secondary Presenting Author**

*Corresponding Secondary Presenting Author*
Sarah Eales
Bournemouth University
Senior lecturer
Author Summary: Sarah has been a member of the TRACS project delivery group since its inception. She brings qualitative methodological expertise as well as content expertise around resilience and work life balance issues.