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A longitudinal, mixed methods investigation of newly qualified nurses' workplace stressors and stress experiences during transition

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Newly qualified nurse work-related stressors during transition

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Conflict of Interest Statement

No conflict of interest has been declared by the author(s).

IMPACT STATEMENT

Impact Statement

Identifying and understanding the work-related stressors encountered by newly qualified nurses as they transition during their first 12 months post-qualifying has the potential to augment strategies to nurture and retain them in the nursing workforce. This longitudinal, explanatory sequential mixed methods, cohort study identified the range, frequency and reasons for their reported stressors. The articulation of highly professional attitudes and practices provides reassurance of quality care by newly qualified nurses. However, workload and incivility threaten transition and need active management by employing organisations.

Healthcare experience prior to commencing their nurse education was a significant newly qualified nurse stress-mediating asset. This may influence future recruitment criteria used by providers of pre-registration nurse education.

ABSTRACT

Aim

To investigate transition in newly qualified nurses through an exploration of their stressors and stress experiences during their first 12 months post-qualifying.

Background

Globally, thousands of new nurses qualify annually. They are crucial for the profession and healthcare service delivery. Work-related stress has multiple serious consequences, yet there is a lack of robust, empirical evidence that directly analyses newly qualified nurses and the stress they feel and experience in the workplace. Understanding what causes newly qualified nurses' stress is vital to retaining and nurturing this vital component of the workforce.

Design

Longitudinal, explanatory sequential mixed methods, cohort study.

Methods

At the point of qualification (n= 288), 6 months post-qualifying (n= 107) and 12 months post-qualifying (n= 86), newly qualified nurses completed the Nursing Stress Scale, with n= 14 completing a one-to-one interview at 12 months post-qualifying. Data were collected from 2010-2012. Inferential statistics, 'thematic analysis' and 'side-by-side comparisons in a discussion' were used for analysis.

Results/Findings

Workload was consistently the highest reported stressor with inadequate staffing and managing multiple role demands given as explanations. Incivility within the workplace was a noted stressor. Conversely, being part of 'a good team' provided a civil, supportive, facilitative work environment. Entering nurse education with previous healthcare experience had a mediating effect on the reported frequency of stressors.

Conclusions

Newly qualified nurses encounter multiple work-related stressors over their first 12 months post-qualifying, which are intrinsically entwined with their transition. Employing organisations need to be more proactive in managing their workload and addressing workplace incivility.

KEYWORDS

Newly qualified nurse; transition; stress; workload; incivility; mixed methods; longitudinal

SUMMARY STATEMENT

Why is this research needed?

- No literature exists where newly qualified nurses have quantified and qualified what causes them stress during transition.
- No literature exists that follows up newly qualified nurses sequentially over 12 months post-qualifying.
- Identifying and understanding newly qualified nurses' stressors will help with the transition process and their retention in the workforce.

What are the key findings?

•	Workload was consistently the most frequently reported stressor.

•	Newly qualified nurses experienced stress from workplace incivility, but 'a good team' supported transition.

•	Prior healthcare experience mediated some stressors.

How should the findings be used to influence policy/practice/research/education?

•	The workload of newly qualified nurses needs to be proactively managed.

•	Organisations need to implement strategies to promote nursing team civility.

•	The long-term benefits of entering nurse education with healthcare experience requires further research.

MAIN TEXT

Introduction

Stress amongst the nursing workforce is an international cause for concern with its known professional, organisational and personal consequences (O'Henley *et al.* 1997, McVicar 2003, Lim *et al.* 2010). Furthermore, many countries around the world are either experiencing or anticipating a significant shortage of nurses in their healthcare workforce (Organisation for Economic Co-operation and Development 2013). Understanding newly qualified nurses' (NQN) stressors and stress experiences in the workplace is therefore crucial to retaining and nurturing them, so they can achieve their full potential and help meet escalating health service requirements along with advancing quality of care.

This paper provides an enhanced understanding of NQN stress and stressors during their first 12 months from becoming a qualified, registered nurse. Utilising a rarely-used longitudinal, explanatory sequential mixed methods design, the doctoral research presented spans NQN transition capturing change and stress-mediating factors.

Background

Nursing students in the UK and internationally undergo several years of theoretical and practical education in order to qualify as a nurse. Thereafter, the NQN immediately embarks on a period of transition lasting 6-12 months (Romyn *et al.* 2009, Andersson & Edberg, 2010) as they leave behind their student status and fully embrace their professional role. Synthesis of the literature suggests transition issues for NQNs include working within an alien culture (Kelly & Ahern 2009), functioning within an organisation and a team (Bisholt 2012), adapting to a new role coupled with personal development (Clark & Holmes 2007) and managing conflict with cherished ideals (Maben *et al.* 2007). Overall, it is a complex process of evolving professionalisation, socialisation and adaptation (Kramer 1974, Duchscher 2009). However, whether transition is stressful has received considerably less investigation.

There are examples in the predominantly qualitative NQN transition literature where stress is referred to without supporting examples of participant dialogue to evidence that NQNs found the theme stressful, rather than problematic (e.g. O'Shea & Kelly 2007, Kelly & Ahern 2009, Duchscher 2009). Chang and Hancock (2003) investigated NQN role stress and ambiguity. While providing valuable longitudinal insight, the scope of stressors for NQNs is likely to be broader than the small number of questionnaire items used. Yeh and Yu (2009) conducted a study with Taiwanese NQNs creating a questionnaire to investigate what their work-related

stressors were during their first 3 months post-qualifying. While providing a rare example of a range of high and low-rated stressors for NQNs, it only provides insight into NQN stressors at the early stage of transition. Therefore, there is currently limited empirical evidence as to what stressors affect NQNs and why they regard them as stressful. The present mixed methods study aimed to produce this new knowledge taking into account that NQNs undergo a period of transition over their first 12 months post-qualifying thus some stressors may be unique to NQNs and may change over time.

Theoretical framework

The transactional cognitive appraisal theory of stress by Lazarus and Folkman (1984) was utilised. Central to the theory is a person's, or for this study a NQN's, appraisal of why and to what extent their interaction with their workplace environment is regarded as stressful. Lazarus and Folkman (1984) proposed 3 types of primary appraisal: 'irrelevant', 'benign-positive' and 'stressful'. 'Stressful' appraisals take the form of 'harm/loss', 'threat' or 'challenge'. 'Harm/loss' and 'threat' are characterised by negative emotional responses such as fear, anxiety and anger. 'Challenge' responses, characterised by eagerness and excitement, are more positive because they constitute growth and personal gain. Therefore, application of the theory to NQNs provides a range of potential appraisal outcomes, some of which can result in positive and/or negative personal responses.

THE STUDY

Aims

In the UK, there are 4 fields of nurse education leading to registration as a qualified nurse: adult, child, mental health and learning disabilities. The aim of the research was to investigate

transition in NQNs (adult field) through an exploration of their stressors and stress
experiences during their first 12 months post-qualifying. The research questions were:

1. What are the work-related stressors experienced by NQNs during their first 12 months
   post-qualifying?
2. To what extent do work-related stressors change in NQNs during their first 12 months
   post-qualifying?

Design

An explanatory sequential mixed methods design was used (Wisdom & Creswell 2013). The
strength of this methodology is that the separate quantitative phases followed by a qualitative
phase are mutually illuminating and thus provide the greatest understanding of the topic by
being the sum of its constituent parts (Woolley 2009). Questionnaires were completed by
participants at Phase 1 (point of qualification), Phase 2 (6 months post-qualifying) and Phase
3 (12 months post-qualifying) followed by semi-structured interviews at Phase 4 (12 months
post-qualifying). A pilot study of each phase was undertaken using a similar sample resulting
in no design changes. Phase 1 data were collected in campus classrooms, while Phase 2 and 3
data were collected predominantly through electronic submission. Phase 4 data were
collected in a private campus office. Data were collected from 2010-2012.

Sample

All adult field nursing students from 1 university in England were invited via their virtual
learning environment to participate. Four cohorts of nursing students were recruited on the
last day of their nurse education, the exact time point they became NQNs (Phase 1). The
number recruited was n= 288, 49% of the potential population. At Phase 2, n=107 of the
original sample continued to participate in the research. At Phase 3, n=86 completed the final

phase of quantitative data collection. Phase 4 was the qualitative interview phase in which a convenience sample of n= 14 Phase 3 responders participated. Recruitment to Phase 4 ceased at n= 14 participants as data saturation was achieved.

Data collection

Quantitative Phases 1-3

The standardised Nursing Stress Scale (NSS) (Gray-Toft & Anderson 1981) was used in Phases 1-3. The NSS was developed to measure the frequency and sources of stress, though not the stress intensity felt, for hospital-based nurses. There are 7 subscales in the NSS constituting 7 sources of nursing stress: 'death and dying', 'conflict with physicians', 'inadequate preparation', 'lack of support', 'conflict with other nurses', 'workload' and 'uncertainty concerning treatment'. To calculate the results for the NSS, each of the 7 subscales is summed to produce a subscale total. Likewise, all 34 item scores are summed to produce an overall total stress score (Gray-Toft & Anderson 1981). Post-publication of Gray-Toft and Anderson (1981), the authors amended the scoring from 0-3 to 1-4 per item thus the total possible score became 136 and not 102 as in the original publication. The amended scoring system was used in this research.

Qualitative Phase 4

Phase 4 consisted of semi-structured, one-to-one interviews with the lead author. Participants were asked 2 questions about work-related stress:

1. What things have caused you stress at work during your first year as a qualified nurse?
2. Is there anything your clinical area could have done to help you with the stressors you have encountered in your first year as a qualified nurse?

Ethical considerations

University ethics approval for the research was granted in January 2010. All participants were provided with a separate information sheet and consent form for the quantitative and qualitative phases and assured of anonymity. Participants were debriefed after their interview by the interviewer to ensure their well-being as recommended by Coolican (2014).

Data analysis

Appropriate for a mixed methods study, the data were analysed separately initially, maintaining the characteristics of each: numbers for quantitative data and words for the qualitative data (Sandelowski 2000). Phases 1-3 quantitative data from the NSS were analysed using 'IBM SPSS Statistics 21'™. Missing data were not replaced. Descriptive statistical analyses were performed to describe the sample in detail. Distribution analysis was undertaken for the NSS total and subscales. Distribution was normal thus parametric tests were used. Healthcare experience prior to the participant commencing their nurse education and age as confounding variables were analysed. A 'one-way repeated measures ANOVA' was used to determine change in reported stress between each time point over 12 months. To reduce the risk of bias and a skewed result, only a complete dataset was used in this analysis (Son *et al*. 2012).

The Phase 4 interviews were transcribed verbatim. The resulting qualitative data were analysed using the 6 stage 'thematic analysis' process as detailed by Braun and Clarke (2006) producing themes and sub-themes relevant to NQN work-related stress.

To maintain the integrity of the separate analyses, but to be able to draw mixed methods inferences, the merged data analysis technique of 'side-by-side comparisons in a discussion'

was undertaken (Creswell & Plano Clark 2011). The 3 possible outcomes from this technique were: convergence, complementary and divergence (Östlund *et al*. 2011).

Validity and reliability/rigour

Assessment of validity and reliability was part of the questionnaire selection criteria. Gray-Toft and Anderson (1981) calculated the Cronbach's coefficient alpha for the NSS total stress score as 0.89, and the subscales ranged from 0.64 - 0.80. To calculate a Cronbach's coefficient alpha, Kline (2000) stated that a sample had to be representative of the population and contain not less than 100 people. As the Phase 1 sample met both of these criteria, Cronbach's coefficient alpha for the total stress score using this dataset was 0.90 and the subscales ranged from 0.66-0.75, comparing favourably to the original work and 0.91 for total stress from a small sample of NQNs (Brunero et al. 2008).

'Rich rigour', 'sincerity', 'credibility' and 'resonance' are elements suggested by Tracy (2010) as denoting excellence in qualitative research. These requirements are demonstrated through the use of a suitable number of in-depth interviews that followed a schedule that covered the research aims/questions. Data analysis showed rigour because it was systematically conducted using 'thematic analysis' and 'side-by-side comparisons in a discussion'. Additionally, a sample of transcripts were analysed separately by a co-author. The findings are presented using 'thick description' (Bryman 2012) allowing others to judge the 'resonance' or 'transferability' of the findings to other populations and contexts (Braun & Clarke 2013).

Results/findings

Sample descriptors

Table 1 provides an overview of the participants per Phase. At Phase 2, of the 90 employed participants, most had been employed as a qualified nurse for 3-6 months, and 93% were employed in National Health Service (NHS) hospitals. At Phase 3, of the 78 employed participants, 87% were employed in NHS hospitals. The length of time participants had been working as a qualified nurse was: 14% (1-6 months), 31% (6-10 months), 39% (11-12 months) and 16% (12-15 months).

Participants that had never worked as a qualified nurse since Phase 1 (point of qualification) were excluded from the Phase 2 and Phase 3 stress analyses. Using 'independent samples t-tests' for stress data, Phase 4 participants were not significantly different to all other participants at the point they qualified or at 12 months post-qualifying when they were interviewed.

Newly qualified nurse stressors (quantitative)

Table 2 shows the mean total and subscale stress results per phase. There are different numbers of items in each of the 7 subscales of the NSS. Therefore, the mean score per subscale accounting for the number of items in each subscale was calculated for each phase and presented visually in Figure 1. 'Workload' was the most frequently reported stressor at each time point over the first 12 months post-qualifying. This result complimented the qualitative theme 'managing the work/workload', which provides the reasons why participants reported workload as such a significant source of stress.

Change in stressors over time

Using a 'one-way repeated measures ANOVA', 'workload' significantly increased from Phase 2 to Phase 3 [$F_{2, 50} = 5.54$, p= 0.04]. 'Death and dying' significantly decreased from

Phase 1 to Phase 2 [$F_{2, 50} = 9.66$, $p< 0.01$] and then significantly increased from Phase 2 to Phase 3 [$F_{2, 50} = 9.66$, $p= 0.01$]. There was no significant difference for this stressor from Phase 1 to Phase 3. This is a divergent result from the outcomes of the qualitative analysis where no Phase 4 participant mentioned 'death and dying' as a source of stress. For all other variables, including the total frequency of stressors, there was no significant difference between each time point over the first 12 months post-qualifying.

Non-responders at Phase 2 and/or Phase 3 and those with incomplete datasets were examined to determine if they were significantly different at Phase 1 from those that did participate throughout with a full dataset. There were no significant differences found.

Stressors and age

At Phase 1, there was a significant negative correlation ($p< 0.01$) between the total frequency of stressors and age for n= 193 participants (r= -0.23). This suggested that the older the participant, the lower the total frequency of reported stressors. The specific stressors at Phase 1 that were significantly ($p< 0.01$) associated with age (diminished with increased age) were 'death and dying', 'conflict with physicians', 'inadequate preparation' and 'uncertainty concerning treatment'. At Phase 2 and Phase 3, there was no significant correlation between age and the total frequency of stressors.

Stressors and healthcare experience prior to commencing nurse education

At Phase 1, n= 88 participants indicated that they had healthcare experience prior to commencing their nurse education, while n= 116 indicated that they did not. Where complete data were available, participants who had previous healthcare experience reported a significantly lower total frequency of stressors [t= 2.80, df= 202, $p< 0.01$, 95%CI (1.48,

8.54)]. Those that had previous experience had a mean (SD) of 68.10 (12.44), whereas those without experience had a mean (SD) of 73.11 (12.84). At Phase 2, the difference between the groups was not significant. However, at Phase 3, there was a significant difference again [t= 2.19, df= 66, p= 0.03, 95%CI (0.31, 13.26)]. Those that had previous experience (n= 29) had a mean (SD) of 67.34 (12.06), whereas those without experience had a mean (SD) of 74.28 (13.51).

The significant stressors at Phase 1 for participants without previous healthcare experience are shown in Table 3. At Phase 3, 'conflict with physicians' [t= 2.07, df= 74, p= 0.04, 95%CI (0.49, 0.04)] remained a significant stressor. All other stressors identified at Phase 1 were not evident, but instead 'workload' [t= 2.89, df= 74, p< 0.01, 95%CI (0.63, 3.04)] was identified as a new stressor.

Stressors and stress experiences (qualitative)

From the Phase 4 qualitative data analysis, 3 themes were identified: 'feeling responsible and terrified', 'it's not the job, it's the people you work with' and 'managing the work/workload'. Only the latter theme was complimentary to the quantitative results.

Feeling responsible and terrified

Participants described their feelings and fears associated with being a NQN. Participants felt the weight of increased responsibility, particularly when they first started work. For some it was evident through their fear of making an error and thus harming a patient.

> "When you first start obviously you are terrified because you are suddenly feeling responsible for everybody, all your patients. Just the overall feeling of the weight of responsibility, that stresses me." P15

"…it's that thought that I don't want to hurt anyone." P283

Participants were afraid of being asked a question and not knowing the answer. They felt that others expect qualified nurses to know the answer to any question.

"It's quite hard to say to some people, 'sorry, I'm newly qualified' because they just want answers then and there, so that's added stress as well for me." P138

Participants perceived that they lacked knowledge and needed to address the deficit quickly because, as P89 stated, knowledge is what constitutes a "professional person".

"…all this new stuff, all these new procedures and things. It's a lot to have to suddenly learn. Quickly, quickly learn it. No time to learn it, you are doing it all straightaway." P15

Medication was singled out as a nursing role that produced feelings and fears: the fear of error and being perceived as too slow to complete a drug round.

"You feel terrified. I mean you are checking before giving medicine. I'm checking all the serial numbers. I'm checking the observation chart. I'm thinking, 'what if something happens?'" P15

"I'm slow because I don't, I still give the medicine. But the pressure, 'you're too slow, you're too slow'. But I'm thinking, 'I'm slow because I'm doing it right.'" P283

It's not the job, it's the people you work with

Participants detailed episodes of unacceptable behaviour and/or attitude directed towards them. Predominantly, this incivility was from the ward/team manager, qualified nurses and healthcare support workers. Participants were clear that it was the people they worked with, not their roles as a nurse that were a major stressor.

"…it was never going to be the patients that would cause me stress. It was always going to be staff." P24

Participants described feeling excluded from the team, being chastised in front of others and being criticised for asking a question.

"…how she [nurse] spoke [to participant] and it was right in front of the doctors, other patients and patients' relatives as well, so that really, really got me down..." P56

"…'you should know', and you just think, 'perhaps I should know, but I don't know, that's why I'm asking.'" P138

Participants had a strong desire to uphold their own standards of professionalism and patient care, sometimes facing criticism for doing so. P24 illustrated this recalling a conversation with their manager:

"'… you have got very high standards.' I went, 'yeah and I'll tell you one thing, I ain't going to be dropping them anytime soon.'" P24

Participants felt stressful pressure to conform to the expectations and practices of their team. However, they also feared the consequences of following poor standards of practice and for their own future professional integrity.

"…writing down an assessment, we'd been taught meticulously… There, it was like, they couldn't be bothered to do that. So it was how much do I compromise here? You do try to fit in a little bit." D283

Conversely, some participants referred to being part of 'a good team'. They spoke of their stress and fears diminishing when they experienced civility and consistent, active support from their surrounding team. Two participants in this study left their first job because of chronic incivility from their team. However, both articulated how they intended to stay in their current nursing job because they were now part of 'a good team' that was helping and nurturing them in their nursing roles.

"I feel I get on well and feel part of the team, appreciated I suppose a bit. I'm more like inclined to want to stay." B104

"As long as you have a nice team. I think that is such an important thing. They were very supportive. Lots of nurses said, 'oh, take your time, don't worry', things like that. …you are being allowed to be newly qualified…" A15

Managing the work/workload

Inadequate numbers of nurses per shift was a stressor cited by many participants.

"Staffing, staffing, staffing. We're always short staffed. I think that's the biggest stress for me." P56

The outcomes of inadequate staffing levels were poor skill mix on a shift and participants having to take charge of the shift. Participants felt ill-prepared and feared the consequences of making an error.

"I walked in to find that people had gone sick and it was me, 3 weeks in on the job, newly qualified and 2 agency nurses and they expected me to take charge of the shift. I thought, 'no, I'm just not prepared to take this responsibility. I'm not qualified enough to take that on.' …I thought, 'if something happens this is all down to me'…" P24

"I found that really stressful. Managing a ward is just completely what I didn't expect. Like the first few months from me qualifying." P23

Participants experienced difficulties managing their multiple role demands within the time limit of their shift. Finding time to complete paperwork was a particular stressor, often resulting in working beyond the end of their shift.

"…it actually got to a point where it was getting so stressful on the ward… my paperwork for example, it wouldn't get done until the end of the shift and sometimes I would be there until 9.30pm, 9.45pm and I was meant to finish at 8.00pm, trying to finish my paperwork". P155

A further personal ramification of workload for some participants was they did not take adequate breaks during their shift risking their own health and well-being.

"There's times I was having lunch, 4 o'clock in the afternoon because I'd had to work through lunch… So eating habits-wise, it was terrible…" P89

However, some participants provided examples of where more experienced staff helped them develop work management strategies which were both welcomed and beneficial.

"…one of the new nurses who started working on the ward… he just said to me, 'I try and get all this done in the morning and then sit down before lunch and try and get

most of my documentation done and then I've got the afternoon free to do other

things that I need to do'. So I have tried to adopt that…" C155

Discussion

Many of the stressors experienced by the participants had the potential to inhibit a successful

transition. The results showed that the participants experienced a broad range of stressors

throughout their first 12 months post-qualifying resonating with the outcome of previous

international studies that used the NSS with NQNs that were qualified ≤6 months (Brunero *et*

al. 2008, Suresh *et al.* 2013). The longitudinal design of the current research provided insight

into whether stressors changed for the participants over their first 12 months post-qualifying.

The results showed that the total frequency of stressors did not significantly change, but

specific stressors, 'workload' and 'death and dying', did significantly change. Furthermore,

some stressors appeared self-imposed, while others originated from the work environment.

Additionally, there was evidence that healthcare experience prior to commencing nurse

education and being an older NQN were protective personal assets, which mediated stressors.

Similar to previous UK and international research findings, participants had a range of

feelings and fears associated with being 'thrown in' to nursing work without help and support

(Kelly & Ahern 2009, Thrysoe *et al.* 2011). Participants feared making an error that harmed

patients (Romyn *et al.* 2009) and feared not knowing the answer to questions (Duchscher

2001). This led participants to feel under pressure, often self-imposed pressure, to learn

quickly. For some, they had to battle opposition from their team, enduring stress from

pressure to follow the prevailing culture and norms of their workplace (Maben *et al.* 2006,

Feng & Tsai 2012). This put them at odds with their clearly articulated determination to

maintain their high standards of professionalism and patient care.

'Workload' was consistently the most frequently occurring stressor for participants at each time point over their first 12 months post-qualifying. Furthermore, there was a significant increase in its reported frequency from 6 months to 12 months post-qualifying, possibly reflecting the end of a period of preceptorship as it is in the UK or equivalent NQN support/development arrangements elsewhere. From the qualitative data analysis, the reasons why workload was a stressor for participants were determined. One reason was an inadequate number of staff per shift sometimes resulting in inappropriate skill mix and taking charge of the shift before self-perceived competence to do this. This resonates with some of the outcomes of previous research (Maben *et al.* 2007, Duchscher 2008). Another reason was participants trying to manage multiple role demands within the time limit of their shift.

It has been postulated that NQNs lack the ability to prioritise their workload and manage their time (O'Shea & Kelly 2007). They use self-generated strategies to try and manage their workload (Bisholt 2012), but these can easily be compromised by competing work-related issues (Ellerton & Gregor 2003). There was some evidence from participants to support this explanation. Participants disclosed how they felt they had developed their own strategies for managing their workload, but these would get interrupted/disrupted, which would then compromise completion of their work, often resulting in them not taking adequate breaks and working beyond the end of their shift. It is also likely, given the findings of the present study, that the drive to keep working seen in the participants was linked to their perception and motivation to be professional and deliver high standards of care.

As a facet of nursing work, the results indicated 'death and dying' was a highly-reported stressor at the point of qualification. Its frequency significantly diminished at 6 months post-

qualifying, before significantly increasing again at 12 months post-qualifying. This was a divergent result from the Phase 4 qualitative data where no participant mentioned it as a source of stress.

Por (2005) found that final year nursing students highly ranked 'death and dying' as a stressor. At the point of qualification, NQNs are still akin to a nursing student. At 6 months post-qualifying, it is more likely NQNs are not caring for the high acuity patients that might die, or they are still actively being supported while managing the care of these patients. By 12 months post-qualifying, NQNs are likely to be managing patient care with less direct support and, compounded by work/workload issues, 'death and dying' ascends as a stressor. However, not articulating it as a stressor may reflect that NQNs are developing secondary appraisal coping strategies to manage it as a source of stress.

Unacceptable behaviour/attitude towards NQNs has previously been identified in the UK and internationally from healthcare co-workers (Suresh *et al.* 2013, Rush *et al.* 2014) and specifically from other nurses (Duchscher 2009, Kelly & Ahern 2009). Fundamental to 'incivility' is behaviour that is low-intensity, but still results in "harmful emotional consequences" according to D'ambra & Andrews (2014). This captures the ambiguous nature of what the participants described, that often left them thinking that no one else could see how they were being treated.

There are several possible explanations for the identification of workplace incivility in the present study. Nurses are historically an oppressed group due to gender and class (Whitehead 2010) resulting in an unequal distribution of power within the workplace (Roberts *et al.* 2009). Consequently, nurses do not challenge the power of others in their workplace, but

instead turn on those more vulnerable (D'ambra & Andrews 2014), which would include fledgling NQNs. Within nursing there are several different generations each with their own work ethic, perspective on work, and ways of managing and being managed (Duchscher & Cowin 2004). Furthermore, the UK nursing workforce consists of registered nurses that completed radically different nurse education from all round the world (NMC 2008) and are ethnically diverse (NMC 2012). This great diversity and power differentials within a nursing team and among healthcare workers may all be contributors to actual or perceived incivility.

The potential outcome of chronic workplace incivility is attrition from the organisation's workforce or from the profession. This was certainly the reason given by 2 participants at Phase 4 for resigning from their first nursing job. However, the present study identified the benefits of being part of 'a good team' and how participants reported this factor was an important determinant in them remaining in post and being able to manage and reduce the personal effects of other work-related stressors. Good teams and good team leaders have a vital function in mediating stress for NQNs.

The present research found a significant difference in the total frequency of stressors reported by participants that had healthcare experience prior to commencing their nurse education. These participants reported a lower total frequency of stressors at the point of qualification and at 12 months post-qualifying. Additionally, these participants reported significantly less 'conflict with physicians' and 'conflict with other nurses' as stressors at the point of qualification. The significant differences at 12 months post-qualifying were 'conflict with physicians' and 'workload'. Also of significance in this study, increased age was associated with the reporting of a lower total frequency of stressors as well as 'death and dying',

'conflict with physicians', 'inadequate preparation' and 'uncertainty concerning treatment' as specific sources of stress at the point of qualification.

Applying the cognitive appraisal theoretical framework (Lazarus & Folkman 1984), it is possible that NQNs with prior healthcare experience are more advanced in being able to manage and adapt to work-related stressors than their peers without such experience to draw from and thus appraise fewer situations as stressful. This personal asset may potentially assist them during transition and, in particular, in managing the stress of workplace incivility and their workload. Likewise, being an older NQN may also be a helpful personal asset in the appraisal of work-related stressors, though it is unknown why this was not an enduring asset.

Limitations

Utilising a repeated measures design enabled differences between time points to be determined with less risk of sampling error (Scott & Mazhindu 2014). The longitudinal design also reflected that transition is a process over time (Higgins *et al.* 2010). However, attrition, an established risk with such a design, led to smaller than desirable sample sizes at 6 and 12 months post-qualifying. The NSS may also have been a limitation as it may not have captured all sources of stress for NQNs.

Conclusion

This unique, longitudinal mixed methods study demonstrates that NQNs encounter multiple work-related stressors over their first 12 months post-qualifying that are intrinsically entwined with their transition pathway. The identification of workload and incivility as stressors for NQNs as well as the stress-mediating benefits for NQNs that come from being part of 'a good team' suggests these issues need to be more actively addressed by employing

organisations. A 12 month, structured, individualised programme of skills and knowledge

acquisition in tandem with a gradual increase in workload is recommended. Planned, regular,

constructive feedback from the NQN's manager would assist with personal development and

the early identification of work-related stressors. Organisation-based training to improve

effective and civil team-working together with a clear strategy to report and address incivility

would also be beneficial. Healthcare experience prior to commencing nurse education

appears to be a personal asset and is worthy of further research as it implies a change to pre-

registration recruitment strategies should be considered. In the interim, the high ideals and

professionalism of these NQNs should be celebrated, nurtured and supported.

TABLE 1

Table 1 Participant general descriptors at Phases 1-4

Descriptor		Phase 1 (n= 288)	Phase 2 (n= 107)	Phase 3 (n= 86)	Phase 4 (n= 14)
Age (years)*	Mean (SD)	31.7 (8.0)	31.7 (7.6)	31.8 (7.7)	33.5 (8.7)
Gender	Male	29 (10%)	9 (8%)	8 (9%)	2(14%)
	Female	259 (90%)	98 (92%)	78 (91%)	12(12%)
Nursing qualification	Diploma	150 (52%)	43 (40%)	39 (45%)	4(19%)
	BSc	138 (48%)	64 (60%)	47 (55%)	10(71%)
Previous healthcare experience**	No	171 (59%)	62 (58%)	48 (56%)	6(46%)
	Yes	109 (38%)	44 (41%)	36 (42%)	7(53%)
Employed	Yes	--	90 (84%)	78 (91%)	14(100%)
	Not currently, but had worked as a qualified nurse	--	0(0%)	3 (3%)	--
	No and had never worked as a qualified nurse	--	17 (16%)	5 (6%)	--
*n= 33 (11%) missing data at Phase 1 **n= 8 (3%) missing data at Phase 1					

TABLE 2

Table 2 Nursing Stress Scale mean scores at Phases 1-3

| NSS subscales and total	Score range (Mean score)	Phase 1		Phase 2		Phase 3	
		Mean (SD)	n	Mean (SD)	n	Mean (SD)	n
Death and dying	7-28 (17.50)	15.00 (3.25)	259	13.31 (3.04)	88	14.32 (3.42)	77
Conflict with physicians	5-20 (12.50)	9.66 (2.50)	257	9.61 (2.41)	82	9.86 (2.23)	78
Inadequate preparation	3-12 (7.50)	6.37 (1.65)	270	5.88 (1.70)	89	6.20 (1.85)	79
Lack of support	3-12 (7.50)	5.55 (1.73)	273	5.82 (2.13)	89	5.65 (1.76)	80
Conflict with other nurses	5-20 (12.50)	9.51 (2.70)	269	9.91 (3.23)	88	9.62 (2.78)	79
Workload	6-24 (15.00)	14.72 (3.37)	260	14.58 (3.73)	88	16.18 (3.13)	78
Uncertainty concerning treatment	5-20 (12.50)	10.19 (2.64)	260	10.20 (2.91)	86	9.82 (2.75)	79
Total stress score	34-136 (85.00)	70.87 (12.83)	207	69.27 (14.38)	77	70.83 (13.40)	70

TABLE 3

Table 3 Comparison between participants with and without healthcare experience from employment prior to commencing their nurse education and Nursing Stress Scale subscales at Phase 1

NSS subscales	With prior experience Mean (SD)	n	Without prior experience Mean (SD)	n	Independent samples t-test p value
Death and dying	14.73 (3.28)	102	15.24 (3.26)	152	p> 0.05
Conflict with physicians	9.16 (2.35)	103	10.03 (2.56)	150	**p= 0.01**
Inadequate preparation	6.14 (1.72)	102	6.52 (1.60)	161	p> 0.05
Lack of support	5.25 (1.52)	106	5.72 (1.85)	162	**p= 0.03**
Conflict with other nurses	9.13 (2.84)	104	9.80 (2.63)	157	**p= 0.05**
Workload	14.40 (3.66)	101	14.92 (3.17)	155	p> 0.05
Uncertainty concerning treatment	9.70 (2.49)	103	10.54 (2.69)	150	**p= 0.01**

<u>FIGURE 1</u>

Figure 1 Nursing Stress Scale subscale mean scores accounting for the different number of items in each subscale at Phases 1-3
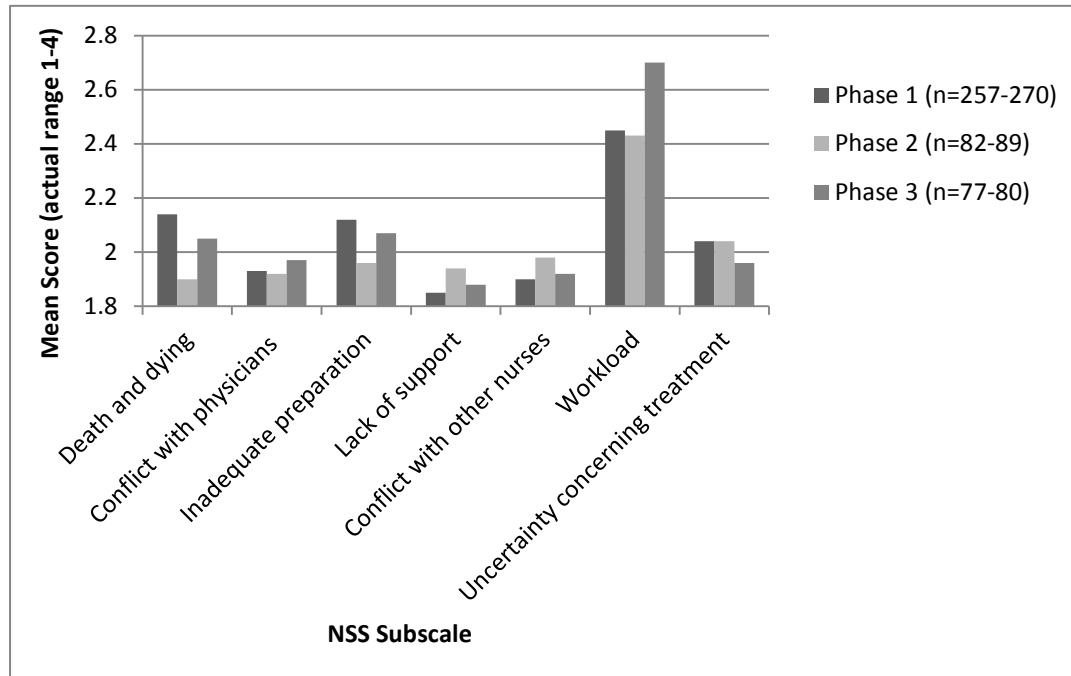
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